Illinois Continuity of Care and Administrative Simplification Section 1115 Demonstration
Interim Evaluation Report

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Executive Summary

To advance Illinois' goals of improving the Medicaid program for beneficiaries while streamlining state-level administration, the state established the "Illinois Continuity of Care and Administrative Simplification" section 1115 demonstration. The demonstration began on January 19, 2021, and is currently scheduled to end December 31, 2025. The demonstration has two primary policy interventions: (a) managed care reinstatement when a Medicaid beneficiary submits late paperwork within 90 days and (b) waiver of hospital presumptive eligibility.

Illinois identified four demonstration goals, which reflect the state's priorities of improving and streamlining the Medicaid program. These include:
1. Promote Continuity of Coverage and Care
2. Improve MCO Quality Oversight
3. Lessen Administrative Complexities
4. Provide Quality Care and Improve Health Outcomes

The state experienced delays in implementing one demonstration initiative, managed care reinstatement when a Medicaid beneficiary submits late paperwork within 90 days, due to the COVID-19 pandemic and related federal policy changes. The federal requirement for states to maintain continuous coverage for Medicaid beneficiaries during the COVID-19 Public Health Emergency (PHE) meant that redeterminations, and thus reinstatements, did not occur until after the PHE ended.

Notably, the demonstration was amended to include a 12-month postpartum coverage extension on April 12, 2021. However, as of July 1, 2022, the state transitioned this initiative to State Plan Amendment authority. Therefore, the postpartum coverage extension is excluded from the evaluation of the Illinois Continuity of Care and Administration Simplification Demonstration.

The final version of the Interim Report Evaluation is due to the Centers for Medicare & Medicaid Services (CMS) on June 30, 2025. This is a draft version, the final version of which will be posted on the Illinois Department of Healthcare and Family Services (HFS) website by June 30, 2025.

Section I: General Background Information

A. Introduction

Illinois is committed to improving the efficiency and effectiveness of its Medicaid program, which serves over 3.4 million residents—approximately 20% of the state's population (Kaiser Family Foundation [KFF], 2024). The state has particularly promoted the managed care model, which provides coordinated care to beneficiaries under contracts with managed care organizations (MCOs). This approach is seen as a way to improve the quality of care and manage costs more effectively. Approximately 75% of Illinois Medicaid enrollees receive coverage through managed care (Centers for Medicare & Medicaid Services [CMS], 2024), underscoring the model's central role in providing quality care to low-income individuals and families across the state.

However, disruptions in MCO coverage, commonly known as "churn," remain a significant barrier to achieving consistent and high-quality care for beneficiaries. Churn occurs when beneficiaries lose or switch coverage due to administrative barriers, such as delays in submitting redetermination paperwork. These coverage interruptions during the Medicaid redetermination process affect a significant portion of enrollees annually; for example, data from Illinois indicate that 62,266 individuals (about 23%) lost Medicaid coverage during the redetermination process in November 2023, and 105,295 individuals (about 28%) experienced the same in February 2024 (Illinois Department of Healthcare and Family Services [HFS], 2023; 2024). For beneficiaries, this leads to delayed care and increased reliance on emergency departments for preventable conditions. Further, losing consistent MCO coverage means interruptions in care coordination, confusion about existing authorizations, and potential gaps in medication access or transportation services.

In addition to its impact on beneficiaries, churn imposes significant administrative burdens on the state. When beneficiaries are temporarily moved from MCOs to Fee-for-Service (FFS) coverage, it complicates the work of care coordinators and state administrative staff. Re-enrolling individuals into managed care after a period in FFS is resource-intensive, requiring significant time and effort that could otherwise be directed toward improving Medicaid services. This inefficiency also impairs Illinois's ability to track and oversee health outcomes for Medicaid beneficiaries under managed care plans.

To address these challenges, Illinois proposed a Section 1115 demonstration project titled "Illinois Continuity of Care and Administrative Simplification," and received approval on January 19, 2021. This project includes two primary interventions: (1) reinstating managed care when Medicaid beneficiaries submit late paperwork within 90 days and (2) waiving the implementation of hospital presumptive eligibility (HPE). With these experimental changes, Illinois aims to reduce disruptions in Medicaid coverage, improve MCO oversight, and achieve better health outcomes for beneficiaries.

Rationale for this Waiver Project

Managed care reinstatement when a Medicaid beneficiary submits late paperwork within 90 days: Prior to this waiver, federal regulations (42 CFR 438.56[g]) limited reinstatement into prior MCOs to 60 days after eligibility loss, while beneficiaries were allowed 90 days to submit late redetermination paperwork. This misalignment created a 30-day gap where beneficiaries defaulted to FFS coverage. These churns between FFS and managed care disrupted communication with care coordinators, confused beneficiaries and providers about their existing authorizations, disrupted transportation arrangements, and created gaps in claims history for MCOs monitoring their members' care. It also restricted the state's ability to assess health outcomes for Medicaid beneficiaries in managed care. Extending the MCO reinstatement period to 90 days was suggested to improve continuity of MCO coverage, which aims to provide high-quality, person-centered services. In addition, this initiative is expected to eliminate the additional administrative work of restarting the managed care enrollment process for enrollees following the late submission of redetermination paperwork.

Waiver of Hospital Presumptive Eligibility (HPE): HPE was originally introduced under the Affordable Care Act in 2014 to provide temporary Medicaid coverage and immediate care for individuals likely eligible for Medicaid during their hospital visits. However, Illinois was concerned about its expected impact on administrative efficiency and continuity of care. In particular, the state considered that hospitals and beneficiaries might fail to complete follow-up applications for full Medicaid coverage, thereby encouraging continued reliance on temporary coverage without transitioning beneficiaries to a stable managed care plan.

In addition, Illinois was already working to reduce application backlogs and streamline eligibility determinations. Implementing HPE would have required creating a new application process, adding to administrative burdens and detracting from the state's broader efforts to promote continuity of care through managed care coverage. As a result, Illinois requested and was approved for a waiver of this requirement under the Section 1115 demonstration.

By waiving HPE, the state aims to encourage applications for full Medicaid benefits instead of reliance on temporary coverage. This approach is also expected to enable state administrative staff to focus resources on processing Medicaid applications instead of matching HPE and full Medicaid applications.

B. Name, Approval Date and Time Period Covered

The Centers for Medicare & Medicaid Services (CMS) approved the Illinois Continuity of Care and Administrative Simplification demonstration, a Section 1115 Medicaid waiver on January 19, 2021. This demonstration is scheduled to be implemented from January 19, 2021, through December 31, 2025. This interim evaluation report includes data from the pre-waiver year (CY2016) through the most recent available (CY2023), primarily covering Demonstration Years 1 to 3.

C. History of Implementation

The Illinois Continuity of Care and Administrative Simplification Demonstration was approved by CMS on January 19, 2021. An amendment to the demonstration, which included a 12-month postpartum coverage extension, was approved on April 12, 2021. However, the state transitioned this initiative to State Plan Amendment authority as of July 1, 2022. Consequently, the current evaluation of Continuity of Care and Administration Simplification Demonstration excludes the postpartum coverage extension. It focuses solely on the two primary policy interventions: (a) managed care reinstatement when a Medicaid beneficiary submits late paperwork within 90 days and (b) waiver of HPE.

Operational History of Managed Care Reinstatement within 90 days of Eligibility Loss

While this policy was scheduled to take effect on January 19, 2021, its implementation was delayed by the COVID-19 PHE declared in March 2020. Under the Families First Coronavirus Response Act, states were required to provide continuous Medicaid coverage throughout the COVID-19 PHE, eliminating the need for beneficiaries to submit renewal paperwork on time. As a result, reinstatements into managed care under the new 90-day window did not occur until after the continuous coverage requirement expired.

On April 1, 2023, Illinois Medicaid resumed redetermination, and the first redetermination cohort received their renewal notices on May 1, 2023. The state also implemented a 30-day grace period as a PHE unwinding flexibility, extending coverage for individuals who did not return their redetermination paperwork on time. This grace period extended the first potential date of coverage loss to the end of July 2023, with cancellations taking effect on August 1, 2023. This resulted in a 90-day reconsideration period spanning August, September, and October 2023, with the 61–90-day window falling in October 2023. This was the first month when reinstatements into the previous MCOs took place under the demonstration following PHE unwinding.

In September 2023, a second 30-day grace period was implemented, with CMS concurrence, due to state system issues. As a result, there were no procedural cancellations in September. Instead, beneficiaries in both the July and August cohorts faced procedural cancellation on October 1, 2023, and their reconsideration periods extended through October, November, and December 2023. The 61–90-day window for these cohorts would fall in December 2023.

Consequently, reporting of MCO reinstatements within 90 days of eligibility loss began in October 2023. However, no new reinstatement data were added for November, as procedural cancellations had not occurred in September.

Operational History of Waiving HPE

HPE has never been implemented in Illinois; therefore, the waiver's introduction was not affected by the COVID-19 PHE or any other factors.

D. Population Groups Impacted

Under the demonstration, Medicaid eligibility does not change. Standards for eligibility remain set forth under the state plan. All affected groups derive their eligibility through the Medicaid state plan and are subject to all applicable laws and regulations in accordance with the Medicaid state plan.

Section II: Evaluation Questions and Hypotheses

A. Defining Relationships: Aims, Primary Drivers, and Secondary Drivers

The Illinois Continuity of Care and Administrative Simplification demonstration is driven by four primary goals aimed at improving the Medicaid program for beneficiaries while streamlining state-level administration. These goals are designed to address critical disruption in coverage, improve care quality, and reduce administrative complexities, thereby enhancing the overall performance and efficiency of the Medicaid system.

The four goals of the demonstration are as follows:

1. **Promote Continuity of Coverage and Care:** The primary objective of the demonstration is to reduce interruptions in Medicaid coverage for beneficiaries. Frequent disenrollment and re-enrollment disrupt care continuity and lead to increased healthcare costs. By allowing beneficiaries to be directly reinstated into their previous MCO within 90 days of coverage loss due to late redetermination paperwork, this initiative seeks to ensure that beneficiaries maintain consistent quality care. The demonstration also aims to minimize transitions between FFS and Medicaid managed care by encouraging Medicaid enrollment rather than relying on the temporary program (Hospital Presumptive Eligibility).

2. **Improve MCO Quality Oversight:** Effective oversight of MCOs is critical to the state, ensuring that beneficiaries receive high-quality, coordinated care. This demonstration seeks to improve the state's ability to measure and monitor MCO performance by reducing coverage gaps and promoting continuous enrollment. Better continuity of coverage allows for more accurate performance evaluations through metrics like the Healthcare Effectiveness Data and Information Set (HEDIS). Thus, the demonstration will support the state's goal of improving MCO accountability and the quality of care delivered to Medicaid beneficiaries.

3. **Lessen Administrative Complexities:** Administrative burden is a significant challenge within Medicaid, particularly in re-enrollment processes and transitions between FFS and managed care. By allowing for re-enrollment into previous MCOs, the demonstration aims to simplify administrative processes, thereby decreasing the time and cost associated with managing Medicaid enrollments and churn. Waiving the HPE program also prevents increases in the volume of short-term, temporary Medicaid, enabling the state to focus on processing full Medicaid applications.

4. **Provide Quality Care and Improve Health Outcomes:** The long-term goal of the demonstration is to improve the health outcomes of Medicaid beneficiaries by ensuring they receive continuous, coordinated, and high-quality care. By addressing disruptions in coverage and care, the demonstration promotes timely access to healthcare services,

reduces delays in treatment, and supports better care coordination, ultimately leading to better health outcomes.

These demonstration goals are translated into quantifiable targets to measure performance. A driver diagram below depicts relationships between the demonstration's goals, the primary drivers that contribute directly to achieving the aims, and secondary drivers, which are components or processes of the primary drivers. Figure 1 includes Goal 1 (*promoting continuity of coverage and care*), Goal 2 (*improving MCO quality oversight*), and Goal 4 (*providing quality care and improving health outcomes*), with Goal 4 representing an expected long-term outcome of achieving Goal 1. Figure 2 focuses on Goal 3 (*avoiding administrative complexities*), which reflects a distinctive set of drivers from those supporting Goals 1, 2, and 4.

As depicted in Figure 1, automatically reenrolling beneficiaries into their prior MCO when they submit late redetermination paperwork within 90 days (instead of 60 days, as previously required) will minimize churn between managed care and FFS. This will promote the continuity of MCO coverage (Goal 1). Meanwhile, waiving the requirement to operate an HPE program will promote Medicaid applications instead of reliance on temporary coverage. This will increase the timeliness and rate of MCO enrollment and facilitate coordinated care, another primary driver of Goal 1. Achieving Goal 1 is expected to improve MCO oversight quality (Goal 2) by enabling more complete MCO quality measurements, which rely on meeting the 12-month continuous enrollment standard set by HEDIS. These two goals are important steps toward providing quality care and improving health outcomes (Goal 4).

Figure 1. Driver Diagram for Goals 1, 2, and 4
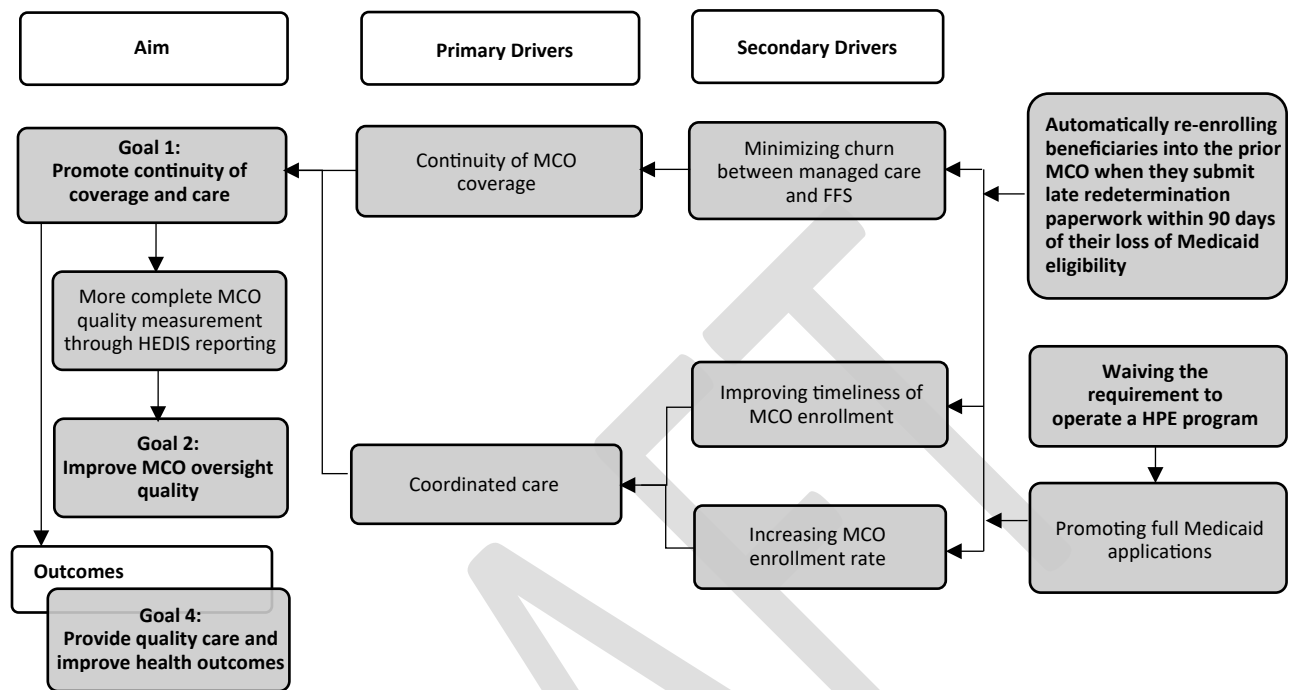
Figure 2 is a driver diagram for reducing administrative complexities. Automatically re-enrolling beneficiaries into their prior MCO when they submit redetermination paperwork within 90 days after their redetermination period ends will reduce the administrative burden of temporarily re-enrolling beneficiaries into FFS while they go through the MCO enrollment process again. This change will reduce enrollment processing costs and time, avoiding administrative complexities (Goal 3). Likewise, waiving the requirement of the HPE program implementation will minimize (1) the number of HPE-associated applications, (2) the workload of staff tasked with matching HPE with Medicaid applications, and (3) additional administrative tasks related to oversight and compliance. These secondary drivers are to prevent a large volume of additional administrative work, supporting the achievement of Goal 3.

Figure 2. Driver Diagram for Goal 3

Aims	Primary Drivers	Secondary Drivers

Reducing MCO reenrollment-related administrative costs and time
→ Reducing administrative work to temporarily place re-enrolling beneficiaries into FFS
→ Reducing administrative work to place re-enrolling beneficiaries into a new MCO
→ Automatically re-enrolling beneficiaries into the prior MCO when they submit late redetermination paperwork within 90 days of their loss of Medicaid eligibility

Goal 3: Avoid administrative complexities

Preventing a large volume of additional administrative work
→ Reducing application volumes (which could have been increased by HPE applications)
→ Reducing manual work for casework staff (associated with matching HPE applications and full applications)
→ Eliminating a new layer of admin work to monitor and enforce HPE
→ **Waiving the requirement to operate a HPE program**

B. Hypotheses and Research Questions

To measure the progress of the demonstration toward achieving the goals, the evaluation team developed four sets of hypotheses and corresponding evaluation questions. Table 1 describes these hypotheses and the alignment of the evaluation questions, hypotheses, and goals of the demonstration.

Table 1. Demonstration Goals, Hypotheses, and Research Questions

Goals	Hypotheses	Research Questions
1. Promote continuity of coverage and care	1.1. The demonstration will reduce the rates of disrupted coverage (gaps in coverage).	1.1.1. Are enrollees less likely to experience a disruption in service by allowing a 90-day reinstatement period into the prior MCO?

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		1.1.2 Does waiving HPE minimize the churns between Medicaid fee-for-service (FFS) and Medicaid managed care?
	1.2. The demonstration will increase the MCO coverage period.	1.2 Does allowing a 90-day reinstatement period into the prior MCO increase months of MCO coverage?
	1.3. The demonstration will promote full-scope Medicaid applications.	1.3. Does waiving HPE continue to promote hospitals' assistance with full-scope Medicaid benefit applications?
	1.4 The demonstration will increase enrollment in MCOs.	1.4. Does the demonstration increase the rate of enrollment in MCOs?
	1.5 The demonstration will affect the timing of enrollment in MCO.	1.5 Does waiving HPE encourage timely enrollment in MCO?
	1.6. The demonstration will improve care coordination.	1.6. Does the demonstration improve care coordination?
	1.7. The demonstration will increase continuity of care.	1.7. Does continuity of MCO coverage increase continuity of care?
2. Improve MCO quality oversight	2. The demonstration will improve MCO quality oversight.	2. Does improved continuity of MCO coverage allow for more complete MCO quality measurement through HEDIS reporting?
3. Avoid administrative complexities	3. The demonstration will maintain or reduce administrative costs and time.	3.1. Does allowing beneficiaries to be reenrolled automatically into their previous MCO within 90 days of the reconsideration period reduce administrative costs and time?

		3.2. Does waiving HPE prevent increases in application processing costs and time?
		3.3. Does waiving HPE prevent increases in Medicaid application backlog?
4. Provide quality care and improve health outcomes	4.1 The demonstration will improve the quality of care.	4.1 Does the demonstration improve the quality of care?
	4.2 The demonstration will improve health outcomes among beneficiaries.	4.2 Does the demonstration improve health outcomes among beneficiaries?

C. Current Report and Previous Findings

The interim evaluation presented here builds upon earlier findings from the Annual Monitoring Report submitted to CMS in June 2024, as well as prior annual and quarterly reports prepared by HFS. These earlier reports tracked key metrics for evaluating the demonstration, including the number of MCO reinstatements due to late redetermination paperwork within the 61–90-day window per month, and metrics related to the application backlog and turnaround times. However, the COVID-19 PHE Maintenance of Effort (MOE) requirements significantly hindered the operation and monitoring of the demonstration, as the state suspended redeterminations until April 2023.

To address these challenges, the state reported alternative metrics in consultation with CMS, such as the number of MCO reinstatements during the 61–90-day window *prior to* the PHE and estimated application backlog data without the HPE waiver until the end of the PHE. While these alternative metrics provided only limited insights into post-waiver outcomes, the reports identified specific trends, including the occurrence of MCO reinstatements after the restoration of redeterminations, particularly after October 2023. Additionally, the reports noted an increasing application backlog since redeterminations resumed, suggesting that waiving HPE may have benefited the state by preventing hospital-initiated temporary coverage applications and enabling a greater focus on Medicaid applications.

Building on these earlier findings, the current interim evaluation report offers a more comprehensive exploration of the demonstration's outcomes. While the Annual Monitoring Reports primarily focused on specific metrics directly impacted by the initiatives, this evaluation expands the scope to include outcomes such as continuous coverage and care, quality of care, and health outcomes. Furthermore, it compares metrics from the pre-waiver period (2016-2020) with each year of the waiver period (2021-2023), using statistical tests to identify significant changes. This approach provides a more detailed and nuanced understanding of data trends over time.

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However, as with earlier findings, it should be noted that the impact of COVID-19 constrains the current evaluation. The redetermination process resumed only during the final year of the evaluation period, limiting the ability to assess the waiver's impact fully. The results presented here will be interpreted in consideration of these limitations.

D. Connection of Waiver Project to Broader Transformation Efforts

This waiver project is designed to advance the objectives outlined in Titles XIX (Medicaid) and XXI (CHIP) by addressing key challenges in continuity of coverage, care coordination, program efficiency, and quality oversight. By evaluating the project through the proposed research questions and hypotheses, it aims to evaluate broader systemic transformation and sustainable healthcare delivery and administration innovations.

A key area of focus includes reducing coverage disruptions and improving care coordination. For example, by examining whether a 90-day reinstatement period into the prior MCO reduces service disruptions, the research directly supports Medicaid's goal of ensuring uninterrupted care for low-income and vulnerable populations. Similarly, examining how waiving HPE affects churn between Medicaid FFS and managed care addresses systemic inefficiencies, enhancing enrollment stability and access to care.

In addition to addressing continuity of care, the demonstration examines how to improve administrative efficiency. It explores methods such as automatic re-enrollment into previous MCOs and waiving HPE to minimize application backlogs, aligning with the broader objective of streamlining program delivery while maintaining or reducing administrative complexities. These efforts are designed to ensure that resources are used effectively and that both providers and beneficiaries experience fewer administrative burdens.

Furthermore, the waiver project seeks to improve healthcare quality and beneficiary outcomes. The hypotheses related to quality of care and health outcomes align with CMS objectives to promote patient-centered care and enhance population health.

In this way, the research questions and hypotheses advance the aims of Titles XIX and XXI by focusing on practical ways to enhance healthcare access and improve health outcomes while ensuring that program delivery is cost-effective and efficient.

Section III: Methodology

The results provided in the next section are the first step of the multi-step evaluation described in the approved Evaluation Plan (Appendix A). For this report, the independent evaluator used the Medicaid enrollment and claims data for Illinois beneficiaries to compare 3-5 years prior to the start of the 1115 Medicaid waiver (2016- or 2018-2020) with the most current available data (2021-2023) across 35 proposed metrics. This includes the first three demonstration years of the 5-year waiver. As listed in the approved timeline in the Evaluation Plan, the research team has included descriptive statistics and trend analysis for the metrics comparing the pre- and post-demonstration in the current report.

For the Summative report due in June 2027, the evaluation will incorporate more rigorous study design, such as Interrupted Time Series (ITS), Propensity Score Matching (PSM), and/or Difference-In-Difference (DiD) analyses. The team will evaluate the data quality and availability for each metric to determine the best type of analysis to be used.

Furthermore, the summative evaluation report will include a qualitative component designed to address hypotheses for which a dedicated data infrastructure either does not exist or is not yet reliable. Metrics 5, 7, 9, 10, 11, 27, 28, 29, and 30 have been included in the evaluation plan for qualitative data analysis. Given the logistical challenges of collecting interview data, the qualitative analysis results have been proposed to be deferred to the summative evaluation report. In alignment with the evaluation plan's proposed timeline, the evaluation team has obtained IRB approval and identified potential interview and focus group participants. While the interim report does not include results from these interviews, the summative evaluation report is expected to present qualitative findings, with the deferred metrics complementing the interim evaluation.

Although the assessment of waiving HPE largely depends on qualitative data, excluding these metrics in this report does not mean that the waiver's impact is entirely unmeasured. Section IV, Methodological Limitations, discusses which quantitative metrics should be used to identify the impact of the waiver while a more thorough analysis is forthcoming.

A. Evaluation Design

We report simple trend analyses and descriptive statistics for the interim report, with methods of greater statistical rigor (e.g., comparative interrupted time series or Difference-in-Differences estimation) reserved for the final report. For the interim report, yearly measurements of the metric will be taken, allowing for simple visualizations of change over time and basic trend analysis. Comparison groups are not included in this interim report. However, two comparison states (Iowa and Wisconsin) will be included in the final report alongside the methodology used to select these two states.

Furthermore, in datasets with fixed values (e.g., requiring all claims prior to December 15 as part of a measure year definition), the team checked the data to ensure that calculations did not inadvertently include beneficiaries who should have been excluded. Finally, the team

undertook an extensive review of the SQL syntax used to generate the metrics, focusing on two key aspects: first, to ensure that no errors were inadvertently introduced that could affect the metrics, and second, to validate that the population inclusion/exclusion criteria, value sets, and other choices were well-justified for evaluating the waiver's impact. This process involved a large portion of the team and included a thorough review of relevant literature in instances where metrics had been independently developed. Since many of the metrics were tailor-made to test the impact of this waiver, they are discussed further in Section G – Additional Information.

B. Target and Comparison Populations

Since the policy changes introduced by the 1115 waiver will affect the entire state Medicaid population, the evaluation includes all Medicaid beneficiaries in Illinois, with exclusions applied on a per-metric basis. The inclusion and exclusion criteria are detailed below:

Inclusion
The evaluation includes all beneficiaries enrolled in Illinois Medicaid during the evaluation period, with some exclusions. This approach allows for a comprehensive assessment of the waiver's impacts across diverse populations, including families, children, adults without dependent children, and those with varying health conditions who depend on Medicaid as their primary healthcare coverage.

Exclusions
To enhance the precision of each measure, specific subgroups are excluded on a per-metric basis where their patterns of healthcare interactions diverge substantially from the general Medicaid population. Specific inclusion and exclusion criteria for each metric are detailed in Section V. Key overall exclusions include:

- **Long-term Care (LTC) Beneficiaries**: Individuals in long-term care facilities are excluded from several metrics due to their unique, often continuous engagement with healthcare services that do not reflect the healthcare utilization patterns typical of non-LTC Medicaid enrollees.
- **Dual-Eligible Individuals**: Beneficiaries with both Medicaid and Medicare coverage are generally excluded, as their access to Medicare services may introduce external variations in healthcare access and continuity that could confound the waiver's effects.
- **Partial-Benefit Recipients**: Those receiving only partial Medicaid benefits (e.g., for emergency services or specific conditions) are excluded from metrics evaluating ongoing managed care enrollment, as Medicaid beneficiaries with partial benefits are excluded from Medicaid managed care enrollment in Illinois.
- **Hospice Beneficiaries**: Medicaid enrollees in hospice care are also excluded, given their distinct healthcare needs and utilization patterns.
- **Fee-for-Service (FFS) Enrollees**: When evaluating managed care-related metrics, beneficiaries in fee-for-service arrangements, who are not enrolled in managed care, are excluded to maintain focus on managed care continuity and quality.

C. Evaluation Period

The evaluation period for this analysis spans two distinct phases: the pre-waiver period and the post-waiver period. The pre-waiver period spans January 2016 to December 2020, which establishes a stable baseline for comparison. This period also captures the initial onset of COVID-19 and the declaration of the PHE in March 2020. While our original Evaluation Plan proposed starting the pre-waiver period in 2018, we extended it to include data from 2016 due to additional access granted through the HFS Electronic Data Warehouse (EDW). We incorporated data from 2016 where data quality permitted, creating a longer pre-pandemic baseline to enhance the analysis and provide insights into extended trends.

The proposed post-waiver period extends from January 2021 to December 2025. For this interim report, we assessed outcomes through December 2023, the latest full year of available data. This period includes the implementation of the waiver in January 2021 but overlaps with the PHE's continuous enrollment provision, which remained in effect until March 2023. This overlap may limit our ability to isolate the waiver's impact, a limitation discussed further in Section IV. The Summative Report will incorporate data from 2024 to 2025—when the continuous enrollment provision is no longer in effect—allowing for a more complete evaluation of the waiver's impact.

D. Evaluation Measures

Table 2 below includes the list of measures proposed in the Evaluation Design. Unless otherwise noted, all metrics were assessed on an annual basis. In general, each measure was anchored on December 31st of the measure year, meaning that the time series reported below represent real time. Some measures were anchored in fiscal years, however, these instances have been noted in the results.

Table 2. List of Measures

Hypothesis	Associated Metrics	Status
Hypothesis 1.1: The demonstration will reduce MCO coverage disruption	Metric 1: The number of MCO enrollees who had experienced an MCO coverage gap divided by the total number of MCO Medicaid enrollees Metric 2: Length of MCO enrollment gaps (in a year) Metric 3: The number of enrollees who fail to recertify but subsequently re-enroll in the same health plan. Metric 4: The number of MCO enrollees transitioned from FFS within 12 months, divided by the total number of Medicaid enrollees (pre- vs. post-waiver period) Metric 5: Churns between managed care and FFS (pre- vs. post-waiver period)*	Metrics 1-4: Trend analysis and raw data included below CITS will be added to the summative report Metric 5 will be included in the summative report following qualitative data collection.
Hypothesis 1.2: The demonstration will increase the MCO coverage period	Metric 6: The total number of months of continuous Medicaid coverage period covered by MCO (in one and two years[s])	Trend analysis and raw data included below CITS will be added to the summative report

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Hypothesis 1.3: The demonstration will promote full Medicaid applications.	Metric 7: Hospitals' assistance with full Medicaid applications (pre- vs. post-waiver period) *	Metric 7 will be included in the summative report following qualitative data collection.
Hypothesis 1.4: The demonstration will increase the enrollment in MCOs.	Metric 8: Total number of Medicaid MCO enrollees divided by total number of Medicaid enrollees	Trend analysis and raw data included below CITS will be added to the summative report
Hypothesis 1.5: The demonstration will affect the timing of enrollment in MCOs.	Metric 9: Application processing backlog and turnaround time* Metric 10: Reduced duplicative processes* Metric 11: Time to become enrolled in Medicaid from the date of first visit to a hospital*	Metrics 9, 10, and 11 will be included in the summative report following qualitative data collection.
Hypothesis 1.6: The demonstration will improve care coordination.	Metric 12: Emergency Transfer Communication Metric 13: Medication Reconciliation Post-Discharge Metric 14: Correlation with Existing Imaging Studies for All Patients Undergoing Bone Scintigraphy Metric 15: Medication Information Transfer Metric 16: Nursing Information Transfer Metric 17: Patients Information Transfer Metric 18: Physician Information Transfer	Not yet reported. See disclaimer below.

	Metric 19: Procedures and Test Results Transfer Metric 20: Vital Signs Information Transfer	
Hypothesis 1.7: The demonstration will increase continuity of care.	Metric 21: Primary care continuity: average number of primary care visits per year. Metric 22: Bice-Boxerman Continuity of Care (COC): Patient-level care continuity that ranges from 0 to 1; 0 reflects completely disjointed care (a different provider for each visit), and 1 reflects complete continuity with the same provider for all visits. Metric 23: Herfindahl-Hirschman Index (HHI): to measure market concentration using the sum of the squares of discharges from a disease category, viewed as a proportion of all discharges from the hospital. Metric 24: Usual Provider of Care (UPC): The number of visits to the provider or practice group with the highest number of visits divided by the total number of visits. (Density of care) Metric 25: Sequential Continuity Index (SECON): The fraction of sequential visit pairs in which a patient	Trend analysis and raw data included below CITS will be added to the summative report

	sees the same provider (i.e., sees the same provider on two consecutive visits).	
Hypothesis 2: The demonstration will improve MCO quality oversight.	Metric 26: The rate of MCO enrollees meeting the HEDIS 12-month continuous enrollment standard for each year	Near complete overlap with metric 1, replaced with metric 1. Trend analysis and raw data included below CITS will be added to the summative report
Hypothesis 3: The demonstration will maintain or reduce administrative costs and time	Metric 27: Administrative costs to reenroll beneficiaries who submit late redetermination paperwork within the 90-day reconsideration period divided by the number of Medicaid enrollees * Metric 28: Staff time equivalents needed to reenroll beneficiaries who submit late redetermination paperwork within the 90-day reconsideration period divided by the number of Medicaid enrollees * Metric 29: Administrative costs to process applications* Metric 30: Staff time (including casework staff) equivalents needed to process applications* Metric 31: Medicaid application backlog: the number of Medicaid applications that have surpassed 45 days for initial applications or 60 days for renewals	All except Metric 31 will be included in the summative report following qualitative data collection. Metric 31: Trend analysis and raw data included below and ITS will be added to the summative report

Hypothesis 4.1: The demonstration will improve the quality of care.	Metric 32: Cervical Cancer Screening	Trend analysis and raw data included below
	Metric 33: Chlamydia Screening in Women Ages 21 to 24	CITS will be added to the summative report
	Metric 34: Breast Cancer Screening	
	Metric 35: Prenatal and Postpartum Care	
	Metric 36: Controlling High Blood Pressure	
	Metric 37: Hemoglobin A1c Control for Patients with Diabetes	
	Metric 38: HIV Viral Load Suppression	
	Metric 39: Initiation and Engagement of Alcohol and Other Drug Use or Dependence Treatment	
	Metric 40: Follow-up After Hospitalization for Mental Illness within 7 days or 30 days - Ages 6-17 - Ages 18 and older	
	Metric 41: Use of Pharmacotherapy for Opioid Use Disorder	
	Metric 42: Follow-Up After Emergency Department Visit for Alcohol and Other Drug Use or Dependence	

	Metric 43: Immunizations for Adolescents	
Hypothesis 4.2: Does the demonstration improve health outcomes among beneficiaries?	Metric 44: Rate of ED visits Metric 45: Proportion of high-frequency ED utilizers	Trend analysis and raw data included below CITS will be added to the summative report
*The data for this metric will be collected through the upcoming stakeholder interviews. Results will be included in the Summative Evaluation report.		

Metric Stewards

The majority of the metrics above were calculated using pre-existing technical specifications approved by CMS or other contractors. These specifications often change annually, affecting data comparability over time (e.g., additional diagnosis codes added to numerator definitions and changes from measured per 100 beneficiaries to per 1,000 beneficiaries). Therefore, to ensure consistency, all metrics were calculated using the same version or year of technical specifications. Below is a list of all metric stewards.

Table 3. Metric Stewards

Steward	Metrics
Developed by evaluator	Metrics 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 26, 27, 28, 29, 30
Derived from literature (Pollack et al., 2016)	Metrics 21, 22, 23, 24, 25
State-identified	Metric 31
National Committee for Quality Assurance (NCQA)	Metrics 32, 33, 34, 35, 36, 37, 39, 40, 42, 43
Health Resources and Services Administration (HRSA)	Metric 38
Centers for Medicare & Medicaid Services (CMS)	Metric 41
NCQA Healthcare Effectiveness Data and Information Set (HEDIS)	Metrics 44, 45

The measures related to MCO enrollment (Metrics 1-6, Metrics 8 and 26) were developed by the research team based on existing literature on Medicaid coverage continuity (Fairbrother et al., 2004; Goldman & Sommers, 2020; Gordon et al., 2019; Orzol et al., 2015; Roberts & Pollack, 2016). Metric 7 and metrics 9-11 were also designed by the team to assess the impact of waiving HPE. The team developed metrics 27-30 to assess administrative costs and staff time required for processing applications and re-enrolling beneficiaries who submit late

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redetermination paperwork. Data for these measures will be collected through stakeholder interviews, with findings to be reported in the summative evaluation. Details on the creation of each metric are presented alongside the data analysis in Section V.

The continuity of care measures (Metrics 21-25) under hypothesis 1.7 were derived from Pollack et al. (2016), who detail the use of these metrics and provide the mathematical formulae to calculate the continuity of care indices by beneficiaries. The formula used for calculating each continuity of care index is provided alongside the data analysis in Section V.

Metric 31, the application backlog is monitored by the state of Illinois, which provided the data for this metric.

For Metrics 32-43, the source was Core Set of Adult Health Care Quality Measures for Medicaid for fiscal year 2024. Metrics 44 and 45 were derived from the NCQA HEDIS measure EDU (Emergency Department Utilization). Metric 44 is the rate as calculated by the HEDIS technical specifications, while Metric 45 is the outlier rate calculated during the computation of metric 44.

A disclaimer for all HEDIS metrics is provided below:

Measures EDU [Metrics 44 and 45] are Healthcare Effectiveness Data and Information Set (HEDIS®) measures that are owned and copyrighted by the National Committee for Quality Assurance (NCQA). HEDIS measures and specifications are not clinical guidelines, do not establish a standard of medical care and have not been tested for all potential applications. The measures and specifications are provided "as is" without warranty of any kind. NCQA makes no representations, warranties, or endorsements about the quality of any product, test or protocol identified as numerator compliant or otherwise identified as meeting the requirements of a HEDIS measure or specification. NCQA makes no representations, warranties, or endorsement about the quality of any organization or clinician who uses or reports performance measures and NCQA has no liability to anyone who relies on HEDIS measures or specifications or data reflective of performance under such measures and specifications.

The measure specification methodology used by CMS is different from NCQA's methodology. NCQA has not validated the adjusted measure specifications but has granted CMS permission to adjust. A calculated measure result (a "rate") from a HEDIS measure that has not been certified via NCQA's Measure Certification Program, and is based on adjusted HEDIS specifications, may not be called a "HEDIS rate" until it is audited and designated reportable by an NCQA-Certified HEDIS Compliance Auditor. Until such time, such measure rates shall be designated or referred to as "Adjusted, Uncertified, Unaudited HEDIS rates."

E. Data Sources

This interim report relies entirely on Medicaid claims and enrollment data; Illinois Medicaid claims data has been obtained via direct access to the State of Illinois Department of Healthcare and FaHFS EDW), which contains all Medicaid claims submitted to the state and is updated as claims are made. Furthermore, the HFS EDW contains beneficiary enrollment start and end dates, with additional data on MCO enrollment. Unfortunately, data is limited on disenrollment and reenrollment causes, requiring the evaluation team to develop alternative methods to derive disenrollment causes.

F. Analytic Methods

Data cleaning and metric calculation were largely completed directly in SQL. In some cases, data cleaning was done in SQL while other data management tasks were handled using the *tidyverse* family of packages in R.

Descriptive statistics and basic trend analysis have been included for all metrics to examine patterns in the data. The limited sample size in annually reported data made it challenging to conduct further robust statistical tests without a comparison group. Additionally, applying basic statistical tests to time-series data is not straightforward and can result in misleading conclusions. Consequently, while *post hoc* bivariate testing was conducted, it has not been reported owing to its lack of interpretability and reliability. A more detailed rationale for the exclusion of bivariate and effects size testing can be found in Section IV.

G. Other Additions

Metrics Developed Independently

To best evaluate the waiver impact on continuous enrollment, some metrics had to be developed by the evaluation team. While the specific details of each new measure have been noted in the results section, this explains some of the overarching philosophy used to create the metrics.

Where possible, the evaluation team aimed to define the denominator to be as standardized as possible, following strictly the inclusion and exclusion criteria noted in part B of this section. For example, for metrics with a pre-existing reference (such as those found in the CMS core set or with an assigned steward on the CMS Measures Inventory Tool (CMIT)), the team always defaulted to the existing technical specifications.

However, unlike the quality of care metrics, the team defined many enrollment-related metrics—especially those under hypothesis 1.1— include the entire Medicaid population in the denominator, regardless of enrollment duration. In this instance, the evaluation team aimed to examine the impact of the waiver on MCO enrollment itself, so the HEDIS enrollment criteria (i.e., a beneficiary was considered to be continuously enrolled in an MCO if they had no more than one gap in coverage of less than 45 days) was used to determine beneficiaries with discontinuous MCO enrollment. As the majority of metrics under hypothesis 1.1 were focused on measuring the impact of the waiver on continuous Medicaid managed care coverage, rather than continuous Medicaid coverage, this existing HEDIS rule was applied to allow for corroboration of the coverage of care metrics with the quality of care metrics.

Additionally, established elements of the metrics, such as the measure year definition, were maintained to align the new metrics with recognized standards.

For the coordination of care measures, under hypothesis 1.6, the evaluation team encountered data limitations, a consequence of using claims data for the majority of the metrics instead of EMR data. As a result, these metrics were modified, and some were merged to create a new metric that was possible to create using just claims data. Since this change resulted in the loss of

definition for the metric, a more extensive discussion is included in section four, and under each individual metric.

Section IV: Methodological Limitations

This interim evaluation has several methodological limitations. First, it does not report bivariate analyses or effect size testing due to concerns about data constraints and potential bias. Although the Medicaid beneficiary population consists of millions of individuals, their healthcare outcomes are ultimately compressed into a few annual data points. This restricts the sample size to just the three (sometimes five) pre-waiver years and the three post-waiver years. Conducting bivariate analyses on such limited data poses a significant risk of misrepresenting both the statistical and clinical significance of the waiver, either by exaggerating an effect that doesn't exist or by underestimating its impact due to the lack of sufficient post-waiver time points.

Effect size testing using Cohen's d was considered, but ultimately not conducted as its reliance on variance estimates, which become highly unstable with limited data points. With only three post-waiver years, random fluctuations could artificially inflate or deflate the effect size. Additionally, a single extreme year could disproportionately impact the results, leading to misleading conclusions about the waiver's impact. Furthermore, effect size measures typically compare pre- and post-waiver averages, ignoring potential pre-existing trends. If a trend was already occurring before the waiver, a simple effect size might incorrectly attribute change to the policy. Another limitation of the bivariate analyses is the lack of consideration for the impact of the COVID-19 PHE. This issue stems from the use of simple pre-post-testing for the interim report and will be addressed with a secondary analysis in the final evaluation report.

Second, this report relies solely on visual comparisons between the pre-waiver and post-waiver periods, without including a comparison group. This limits the scope of conclusions that can be drawn from the interim report. The final evaluation will directly address the effect of time by introducing a Comparative Interrupted Time Series (CITS) Analysis across all available metrics, allowing for the assessment of both the waiver's immediate and long-term effects. Where CITS is not possible, a Difference-in-Differences (DiD) analysis will be conducted, once again allowing for the effects of the waiver over time to be measured. Both methods also introduce comparison groups to the analysis, to be drawn from the Medicaid populations of both Wisconsin and Iowa.

Third, the Coordination of Care Measures listed under hypothesis 1.6 come with some caveats. Originally, these measures were adapted from the National Quality Forum (NQF) Endorsed Measures for Care Coordination (NQF, 2014), which are designed for use with Electronic Medical Record (EMR) data. The methodology requires care providers (e.g., hospitals) to sample EMR data and create a dataset to derive these care measures. However, this evaluation was conducted using Medicaid claims data, as it would be logistically difficult to create a representative sample of EMR data of Medicaid beneficiaries in Illinois; this approach also raised questions as to the extent to which the evaluation team would need to secure, transfer, and otherwise work with private health data.

With just nine measures requiring EMR, it was decided that the more pragmatic choice would be to adapt the measures for use with claims data; while this process was largely successful, it created some caveats. The largest is a distinct loss of granularity in the data. For example, emergency transfer communication calls for a measurement of data transfer within a 30-minute window, but the claims data only records the date of transfer, effectively reducing the definition of the data transfer from a rapid half-hour window to an ill-defined 24-hour window, limiting the usefulness of the metric. For all metrics with a communication-time component, a 24-hour window of communication was defaulted to as the smallest time increment available with claim data.

Additionally, some of these measures were merged into a larger metric that was better suited for calculation with the claims data. Patient, physician, and nursing information are not available in the claims data, only services rendered by a provider. As a result, not only is there a loss of definition with regard to time, there is a loss of specificity regarding the details of a given transfer. In order to still measure transfers, the team decided to examine transfers within 24 hours in the domains of inpatient care, outpatient care, and transfers between the two. It is regrettable that these metrics have had to be so dramatically shifted; however, the evaluation team is confident that these revised metrics still examine the impact of the waiver on coordination of care. In the final report, these modified measures will be corroborated with qualitative interviews. Individual modifications to the metrics will be noted in the results for each measure.

Fourth, the qualitative analysis of HPE has not been included in the interim report, due to the logistical challenges of conducting interviews with 30 stakeholders in Illinois, coding the interviews, and conducting a thematic analysis within the time allotted for the interim report. Consequently, two quantitative metrics were used to particularly target the waiving of HPE, or rather the ongoing non-implementation of HPE in this interim report.

The measures are:

- The number of MCO enrollees transitioned from FFS within 12 months, divided by the total number of Medicaid enrollees listed under hypothesis 1.1.2; and
- The overall Medicaid application backlog: the number of Medicaid applications that have surpassed 45 days for initial applications or 60 days for renewals under hypothesis 3.3.

These metrics provide an adequate analysis of the presumed null effect of HPE in Illinois while the evaluation team prepares a more thorough qualitative analysis for the final report. Furthermore, while the above metrics will only be reported using descriptive statistics and trend analysis for the interim report, they will be retained alongside the qualitative analysis and subject to CITS or DiD analysis, providing a comprehensive overview of HPE's anticipated non-effect as a consequence of the 1115 waiver.

Lastly, Metric 31 under Hypothesis 3 required adjustments from the initial proposal. Originally, it was designed to count Medicaid applications that have surpassed 45 days for initial applications or 60 days for renewals. However, upon receipt of the data, the evaluation team found that there was no way to distinguish between renewal applications and first-time applications.

Consequently, the evaluation team has opted to just report the overall number of applications on hand that are older than 45 days. While this loss of granularity is regrettable, the overall application backlog is considered suitable for measuring the waiver impact.

Section V. Results

A. Goal 1 – Promote Continuity of Coverage and Care

The first goal of the waiver is to promote continuity of coverage and care for Medicaid beneficiaries. Below are the results for the metrics included under seven hypotheses related to this goal, with a particular focus on the waiver's impact on enrollment in MCOs and continuity of care. While beneficiaries may remain Medicaid-eligible outside of managed care, losing MCO enrollment can significantly disrupt care, especially continuous care, as MCOs often assign primary care providers and establish care routines that can be interrupted if beneficiaries transition to FFS care.

Hypothesis 1.1: The demonstration will reduce MCO coverage disruption.

Five metrics were used to measure if the demonstration reduced MCO coverage disruption: (1) the number of beneficiaries who experienced an MCO coverage gap; (2) the length of the coverage gap; (3) the number who failed to recertify but re-enrolled in the same plan within the year; (4) the rate of those who transitioned to FFS; and (5) the churn between FFS and MCO enrollment by year. Collectively, these metrics illustrate MCO coverage disruption in Illinois from 2018 to 2023.

Metric 1: The number of MCO enrollees who experienced an MCO coverage gap divided by the total number of MCO Medicaid enrollees annually.

MCO coverage gaps were determined using the HEDIS continuous enrollment criteria, which define continuous enrollment in a health plan (i.e., either Medicaid for metrics requiring continuous Medicaid enrollment or an MCO for metrics examining MCO enrollment) as having no more than one gap of 45 days or fewer. Therefore, the numerator includes beneficiaries with multiple gaps in MCO enrollment, or a single gap exceeding 45 days. Since many of the following metrics examine continuity of coverage, this HEDIS criteria will be referenced frequently.

Proportion of MCO enrollees experiencing coverage gaps

The number of MCO enrollees who had experienced an MCO coverage gap divided by the total number of MCO Medicaid enrollees
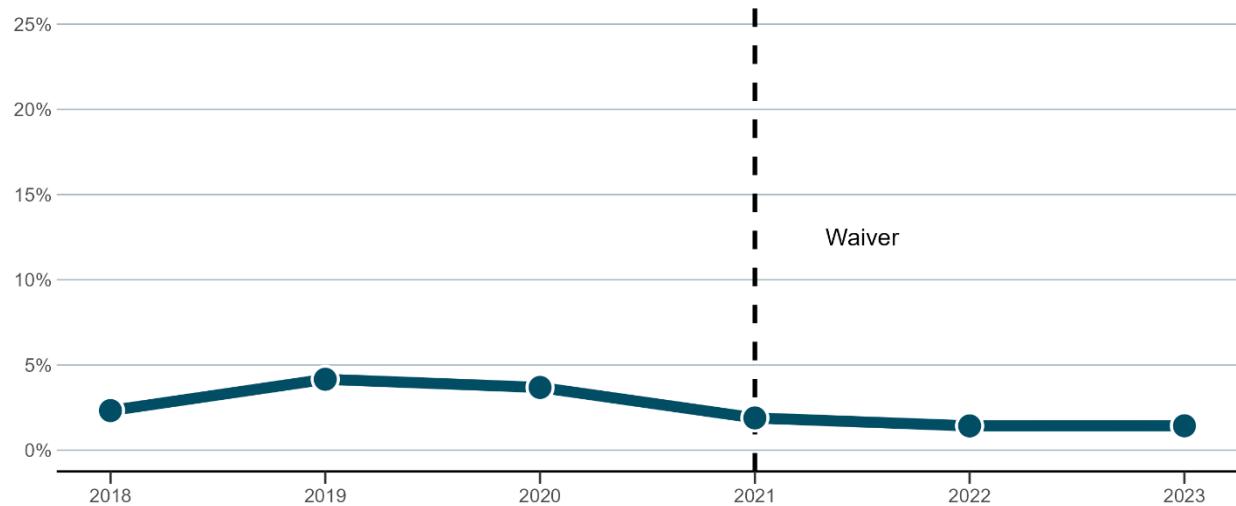
Year	2018	2019	2020	2021	2022	2023
Percent (n)	2.32% (49,767)	4.16% (80,335)	3.68% (64,265)	1.89% (33,663)	1.42% (26,002)	1.43% (29,021)

The proportion of MCO enrollees experiencing coverage gaps fluctuated between 2018 and 2020 before declining sharply in 2021 and remaining low through 2023. The percentage increased from 2.32% in 2018 to 4.16% in 2019, then slightly declined to 3.68% in 2020. Since the waiver's implementation in 2021, it continued to decline, from 1.89% in 2021 to 1.43% in 2023. This suggests improved continuity of coverage. However, this reduction in MCO disruptions is likely also driven by the PHE continuous enrollment provision, which began in March 2020.

Metric 2: Length of MCO enrollment gaps (in a year)

For Metric 2, the continuous enrollment criteria as mentioned in Metric 1 above was not used, meaning that all gaps one day or greater, even those which would normally be ignored while calculating continuous enrollment, were included in the median calculation. Disenrollments for change of address, beneficiary death, and other causes of non-procedural disenrollment have not been included in this calculation.

Median Length of MCO Enrollment Gaps (in days)
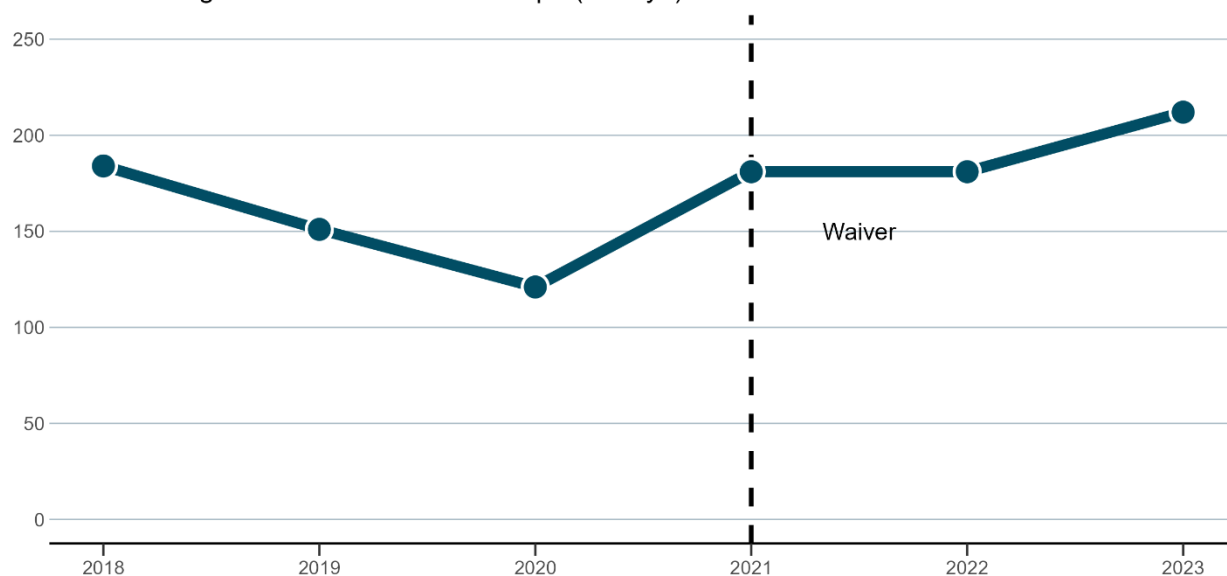
Year	2018	2019	2020	2021	2022	2023
Median Gap Length	184	151	121	181	181	212
Average Gap Length	183.21	157.79	155.5	179.63	177.71	197.13

The median length of MCO enrollment gaps declined in the year the PHE continuous enrollment provision began in March 2020. However, it appeared to increase in 2021, remained steady in 2022, and showed an upward trend in 2023 following the provision's termination in March 2023.

Metric 3: The number of enrollees who fail to recertify but subsequently re-enroll in the same health plan (in a year).

The goal was to assess whether the waiver improved the likelihood of beneficiaries returning to their previous MCO after experiencing an administrative coverage gap. Metric 3 specifically examines gaps between 60 and 90 days, as the waiver extended the MCO re-enrollment window from 60 to 90 days. The hypothesis is that the waiver increased the proportion of enrollees returning to the same MCO after experiencing a 60- to 90-day gap. To identify administrative gaps, we excluded cases where enrollment changes resulted from death, income changes, or relocation out-of-state.

Due to limitations in the data, re-enrollment could only be identified if a beneficiary had claims both before and after the coverage gap. Therefore, the results include only those with documented claims in both periods. The analysis captured the proportion of beneficiaries who re-enrolled and claimed services within 60 days after the end of the gap, either under the same MCO or a different MCO, as well as those who transitioned from an MCO to fee-for-service care after a coverage gap.

Proportion of enrollees who fail to recertify by reenrollment status
Beneficiares who had an administrative gap in coverage (60-90 days) who claimed a service under the same MCO or who had a fee-for-service claim within 60 days after the end of the gap
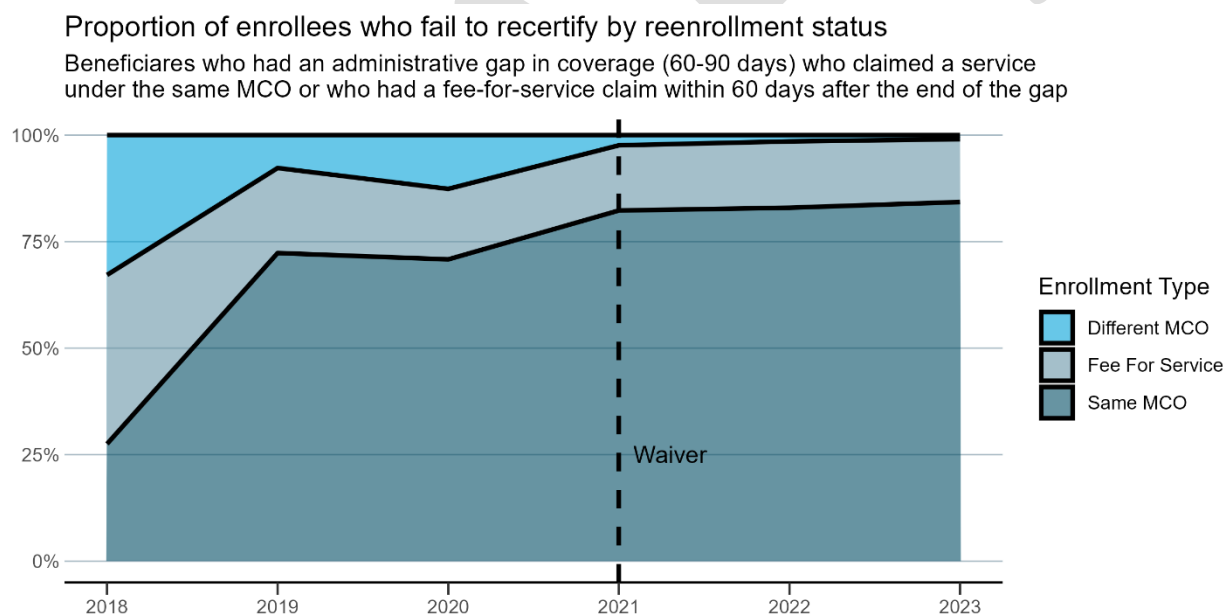
Year	2018	2019	2020	2021	2022	2023
Percent re-enrolling in same MCO (n)	27.52% (5,249)	72.31% (21,711)	70.83% (4,635)	82.30% (2,572)	82.95% (2,701)	84.30% (10,661)
Percent re-enrolling in different MCO (n)	32.82% (6,261)	7.72% (2,319)	12.62% (826)	2.40% (75)	1.47% (48)	.95% (120)

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Transitioning to FFS (n)	39.66% (7,565)	19.96% (5,991)	16.55% (1,083)	15.30% (478)	15.57% (507)	14.75% (1,866)

The proportion of re-enrollees returning to the same MCO increased substantially during the pre-waiver period (2018-2020) but tapered slightly after the waiver's implementation in 2021, retaining an upwards trend, albeit with a smaller increase year-on-year. The sharp rise in MCO enrollment from 2018 to 2019 is the result of the implementation of a mandated MCO policy, leading to a sharp increase in MCO enrollees in 2019. Enrollees moving to a different MCO dropped dramatically during the waiver implementation, indicating that beneficiaries more successfully returned to the same MCO they were enrolled in before they experienced a gap. However, the total number of individuals with an administrative gap between 60 and 90 days decreased significantly from 2020 to 2021, reflecting continuous enrollment due to PHE. As this number rose again in 2023--when redetermination resumed---future analysis using upcoming data will enable accurate assessment of the waiver's impact.

Metric 4: The number of MCO enrollees transitioned to FFS within 12 months, divided by the total number of Medicaid enrollees in a year.

Metric 4 captures the percentage of beneficiaries who were enrolled in an MCO who later made a fee-for-service claim that year. In order to more fully capture changes in coverage, it includes beneficiaries who did not meet the HEDIS continuous enrollment criteria (i.e., having no more than one gap in coverage of 45 days or fewer). Metric 4 hypothesizes that this rate will decline over time as the waiver improves its ability to maintain coverage in MCOs for beneficiaries.

The MCO enrollees transitioned to FFS
Percentage transitioned to FFS annually

Year	2018	2019	2020	2021	2022	2023
Percent (n)	10.20% (331,971)	12.56% (391,456)	4.86% (153,427)	5.41% (181,723)	4.17% (145,150)	3.95% (150,840)
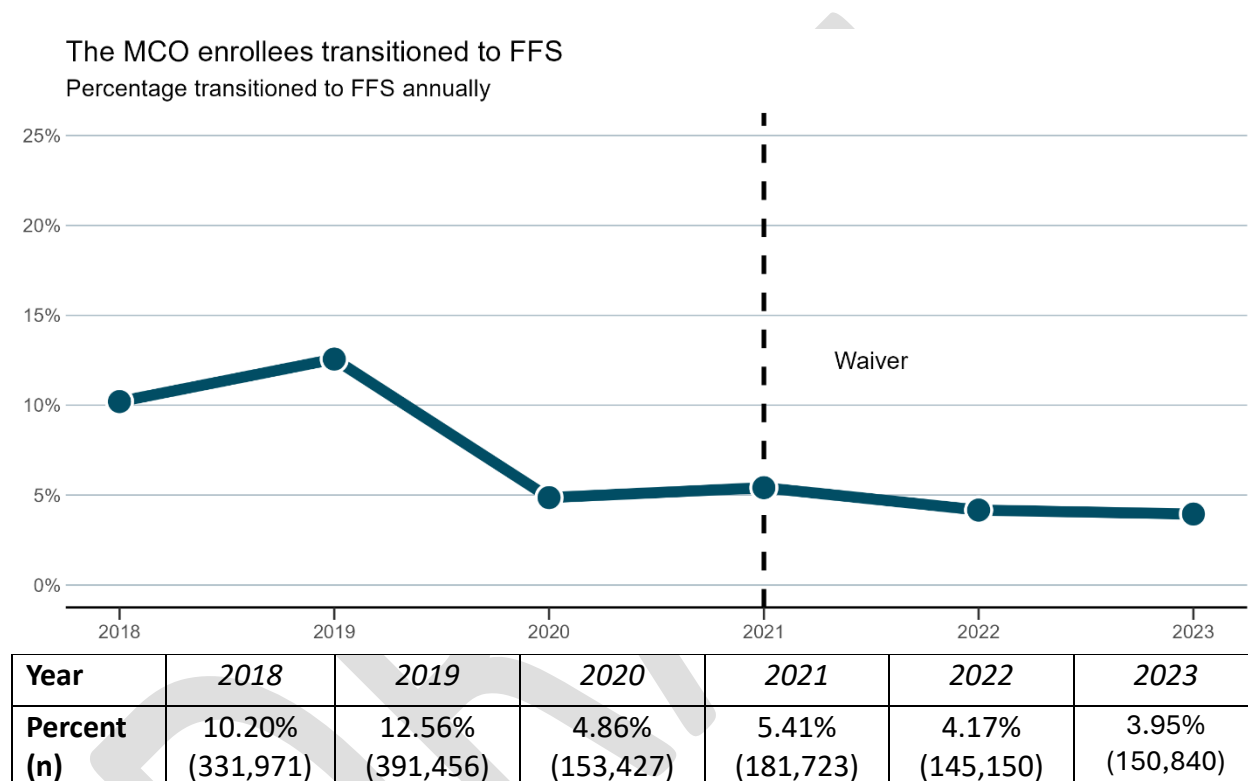
The percentage of MCO enrollees transitioning to FFS declined over the observed period, particularly after the implementation of the waiver in 2021. Prior to the waiver, the transition rate fluctuated, increasing from 10.20% in 2018 to 12.56% in 2019, before dropping significantly to 4.86% in 2020. This steep decline in 2020 likely reflects the impact of the PHE during COVID-19, specifically the continuous enrollment provision, which minimized coverage disruptions. Following the waiver's implementation in 2021, the rate remained relatively stable, with 5.41% in 2021, 4.17% in 2022, and 3.95% in 2023. These findings suggest that both the waiver and PHE policies may have contributed to improved continuity of MCO coverage by reducing transitions back to FFS.

Metric 5*: Churns between managed care and FFS (pre-vs. post-waiver period)

While the data metric for 5 was initially intended to be collected during the qualitative assessment and included in the summative report, an initial quantitative assessment is included here, measuring the churn rate between fee-for-service and managed care. Churn was calculated by identifying gaps where the type of coverage changed, independent of directionality (i.e., both changes from MCO to FFS and FFS to MCO were both counted). This number was divided by the total number of Medicaid beneficiaries for each year (i.e., only those who were continuously enrolled per HEDIS criteria). Note that each beneficiary was only counted once in the numerator, meaning that the churn rate reported here may be marginally lower than the true rate.

Percent of beneficiaries experiencing churn
Beneficiaries whose coverage type changed at least once during the measurement year

Year	2018	2019	2020	2021	2022	2023
Percent (n)	26.62% (866,374)	26.29% (819,237)	20.41% (644,134)	14.75% (495,316)	13.35% (464,955)	12.15% (464,263)
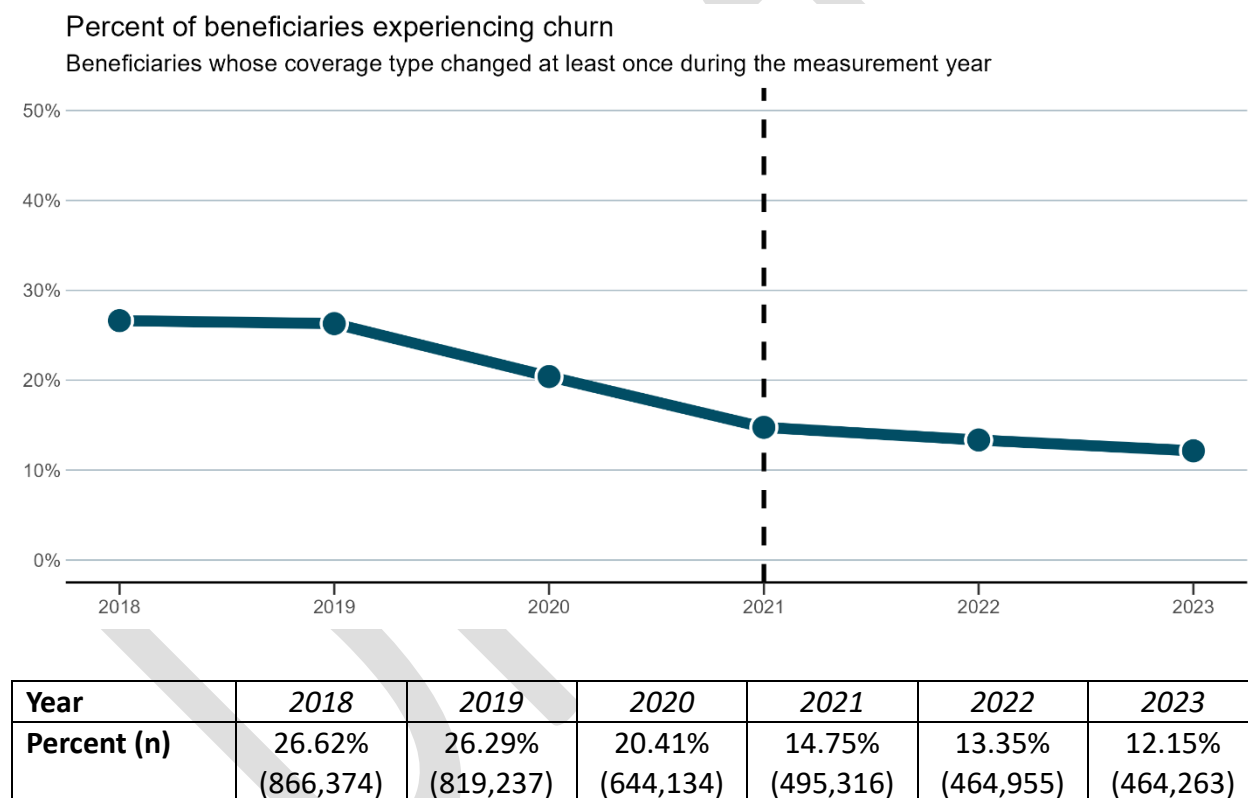
The coverage type churn rate declined steadily from 2018 to 2023, with a notable decrease beginning in 2020 (20.41%), coinciding with the implementation of the PHE continuous enrollment provision. The declines continued post-waiver, reaching 14.75% in 2021, 13.35% in 2022, and 12.15% in 2023. This trend suggests improved coverage stability over time, though it remains unclear whether this reflects lasting structural improvements or temporary policy effects.

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Hypothesis 1.2: The demonstration will increase the MCO coverage period.

Metric 6: The total number of months of continuous Medicaid coverage period covered by MCO (in one and two years).

Continuous MCO coverage was determined using the HEDIS continuous enrollment criteria, with the additional criteria that those enrolled months must specifically be with an MCO. To examine how MCO enrollment changes beyond a one-year period, a two-year rolling period for continuous MCO enrollment was also calculated. In instances where beneficiaries had more months of coverage than were possible in the measure period (i.e., 2022), this indicated that the median beneficiary with coverage in the measure year had continuous coverage either before the beginning of the measure year or had coverage beyond the measure year, so the coverage span is reported as greater than 12 months to avoid implying the existence of coverage gaps where beneficiaries have had continuous coverage (i.e., a false impression of a coverage gap would be given were coverage spans uniformly trimmed on December 31st of the measure year). Overall, this indicates lengthy coverage spans over multiple years.

Median months of continuous Medicaid enrollment with MCO coverage
Within one year and within a two-year rolling period
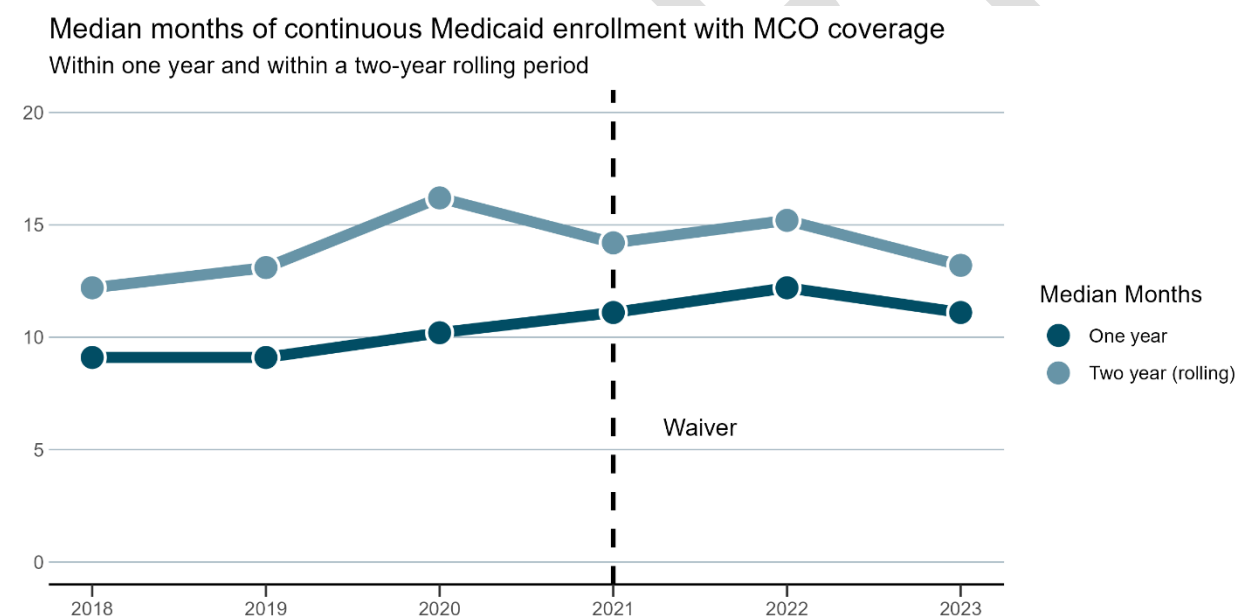
Year	2018	2019	2020	2021	2022	2023
Median months of enrollment covered by MCO in one year	9.1	9.1	10.2	11.1	12.2	11.1
Two Year Rolling Period	*2018-2019*	*2019-2020*	*2020-2021*	*2021-2022*	*2022-2023*	*2023-2024*
Median months of enrollment covered by MCO in two years	12.2	13.1	16.2	14.2	15.2	13.2

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The median months of continuous MCO coverage increased over time in both the one-year and two-year periods, peaking around 2020-2022 before slightly declining in 2023. In the one-year period, the median duration of MCO coverage remained stable at 9.1 months in 2018 and 2019, then gradually increased to 10.2 months in 2020, 11.1 months in 2021, and 12.2 months in 2022, before slightly decreasing to 11.1 months in 2023. This trend also coincides with the PHE continuous enrollment provision.

In contrast, the two-year rolling period showed a more modest increase than the one-year results. It peaked at 16.2 months in 2020, which was only six months longer than the median months in the one-year measure. By the end of the study period in 2023, the two-year rolling median declined to 13.2 months, remaining slightly higher than the one-year median of 11.1 months.

The increase in the one-year measure reflects improved short-term MCO coverage continuity, likely driven by continuous enrollment during the PHE period. A similar but inconsistent pattern is observed in the two-year rolling period. However, the two-year measure indicates that long-term continuity did not improve as significantly, suggesting that some MCO coverage disruptions persisted over extended periods. Until more data is available, it is difficult to draw a distinction between the PHE policy and waiver impacts.

Hypothesis 1.3: The demonstration will promote full Medicaid applications.

Metric 7*: Hospitals' assistance with full Medicaid applications (pre- vs. post-waiver period).

The analysis for metric 7 will be collected through the upcoming stakeholder interviews. Results will be included in the Summative Evaluation report.

Hypothesis 1.4: The demonstration will increase enrollment in MCOs.

Metric 8: Total number of Medicaid MCO enrollees divided by total number of Medicaid enrollees (annually, as feasible, during the pre- vs. post-waiver period)

This metric captures the share of Medicaid beneficiaries enrolled in MCOs within a given year, considering only those who meet HEDIS continuous Medicaid enrollment criteria.
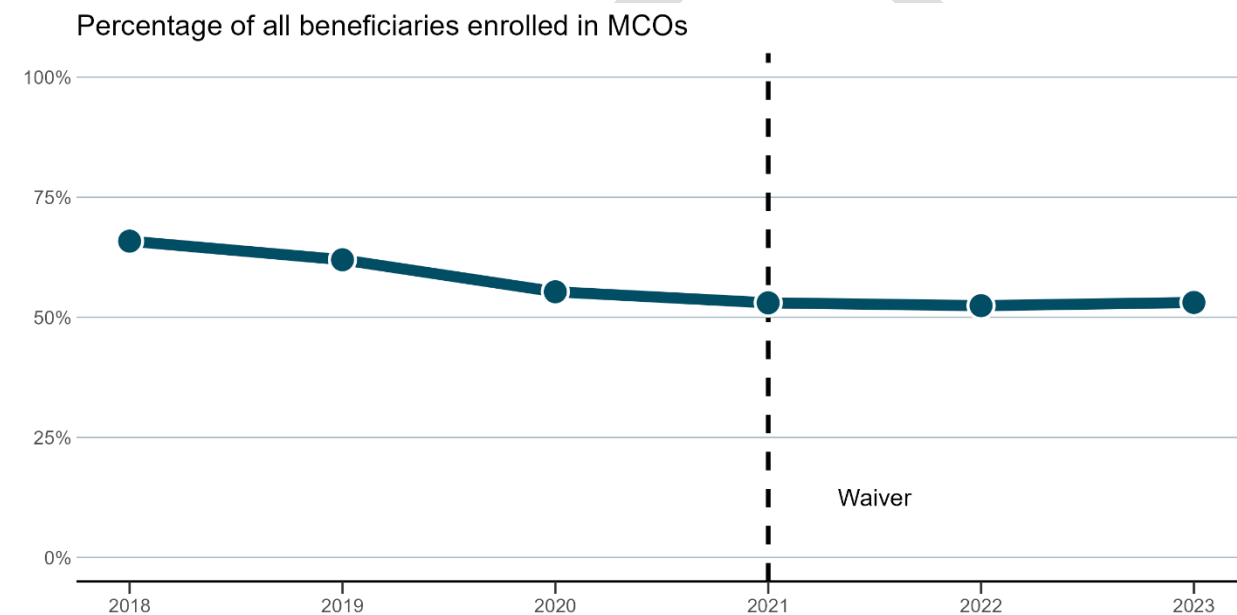
Percentage of all beneficiaries enrolled in MCOs

Year	2018	2019	2020	2021	2022	2023
Percent (n)	65.86% (2,143,286)	61.98% (1,931,104)	55.32% (1,746,103)	53.01% (1,779,900)	52.42% (1,826,420)	53.09% (2,029,460)

The percentage of MCO enrollment declined from 65.86% in 2018 to 52.42% in 2022, before a slight increase to 53.09% in 2023. A notable decline occurred between 2019 (61.98%) and 2020 (55.32%), coinciding with the PHE continuous enrollment provision. While this provision stabilized overall Medicaid enrollment, some individuals who would have normally cycled into MCOs through redetermination remained in FFS instead, possibly causing the decrease in MCO enrollment during the PHE. It is also notable that the number of Medicaid enrollees (irrespective of proportion) has decreased from 2019 until 2023 when PHE terminated, indicating that the PHE may have had other effects on MCO enrollment.

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Hypothesis 1.5: The demonstration will affect the timing of enrollment in MCOs.*

Metric 9: Application processing backlog and turnaround time

Metric 10: Reduced duplicative processes

Metric 11: Time to become enrolled in Medicaid from the date of first visit to a hospital

The analysis for hypothesis 1.5 metrics 9-11 will be collected through the upcoming stakeholder interviews. Results will be included in the Summative Evaluation report.

Hypothesis 1.6: The demonstration will improve care coordination.

Hypothesis 1.6 of the waiver includes the following nine metrics:

1. Emergency Transfer Communication
2. Medication Reconciliation Post-Discharge
3. Correlation with Existing Imaging Studies for All Patients Undergoing Bone Scintigraphy
4. Medication Information Transfer
5. Nursing Information Transfer
6. Patients Information Transfer
7. Physician Information Transfer
8. Procedures and Test Results Transfer
9. Vital Signs Information Transfer

Originally, these measures were adapted from the National Quality Forum (NQF) Endorsed Measures for Care Coordination (NQF, 2014). However, these metrics require information available from electronic medical record (EMR) data but not from the Enterprise Data Warehouse (EDW; Administrative Claims Data Center for Illinois). EMR data was not only unavailable to the evaluation team, but impossible to obtain in a sample representative of Medicaid beneficiaries in Illinois, owing to the privacy concerns inherent in creating a statewide sample of medical records.

To address this issue, the evaluation team notified the Illinois Department of Health and Family Services on December 11th, 2024 that a discussion with CMS was needed to alter the evaluation plan. In turn, HFS reached out to CMS on the following dates:
- December 17, 2024
- January 7, 2025
- January 16, 2025
- February 25, 2025
- March 12, 2025

Additionally, monthly meetings between HFS and CMS in December, January, February, and March were canceled. HFS was notified on March 19, 2025 that CMS will no longer hold monthly meetings and will transition to a quarterly meeting schedule instead.

HFS received feedback from CMS at the April 24, 2025 meeting, where CMS confirmed the evaluation team could proceed with the proposed alternative metrics. Given the timing of the publication of this interim evaluation report, the metrics are not included here; the metrics will be included in the final published version.

Hypothesis 1.7: The demonstration will increase continuity of care.

To best represent continuity of care, a variety of continuity indices have been included in the interim report. Apart from metric 21, all indices report a number between 0 and 1, with 1 indicating perfectly continuous care, and 0 representing completely discontinuous care.

The metrics below were designed to represent just one or smaller groups of providers. The denominator for each measure is the provider, not an MCO or larger organization within Illinois Medicaid. The results here are presented as histograms (apart from metric 21), with providers grouped into roughly equal buckets. While some granularity is lost through this approach, the vast amount of primary care providers in Illinois necessitates further aggregation of the data. Furthermore, to provide a single number per metric per measure year, the proportion of providers with high continuity of care (defined as having an index value greater than or equal to .7) has been reported.

Metric 21: Primary care continuity: average number of primary care visits per year.

Average number of primary care visits per year
Average number of recipients who had 2 or more visits per provider, per year
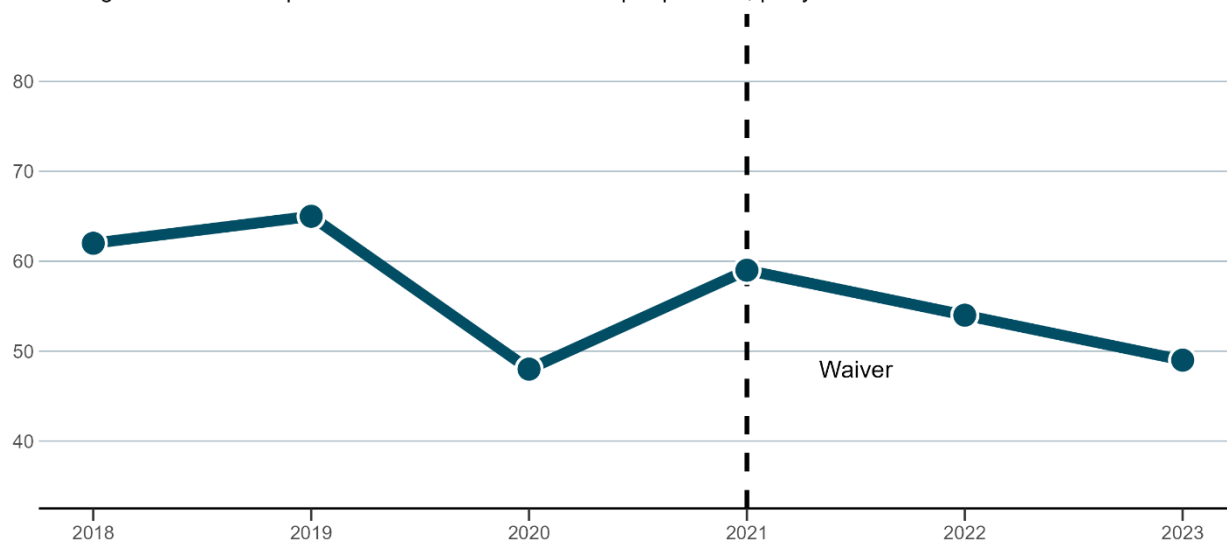
Year	*2018*	*2019*	*2020*	*2021*	*2022*	*2023*
Average number of beneficiaries who had 2 or more visits, per provider	62	65	48	59	54	49
Total beneficiaries who had 2 or more visits	1,885,186	1,542,278	1,439,398	2,374,609	2,135,832	1,429,264

Metric 21 measures continuity through the average number of beneficiaries per provider who had two or more primary care visits annually. In 2018 and 2019, this average was 62 and 65, respectively, reflecting relatively strong continuity in the pre-pandemic period. The average fell sharply to 48 in 2020, coinciding with the onset of COVID-19, which disrupted access to routine care. In 2021—the demonstration's implementation year—the average rebounded to 59 but declined again in 2022 (n=54) and 2023 (n=49). These fluctuations suggest that although care engagement recovered temporarily in 2021, the longer-term trend points to declining continuity in primary care relationships, indicating limited support for the hypothesis from this metric.

Metric 22: Bice-Boxerman Continuity of Care (COC): Patient-level care continuity that ranges from 0 to 1; 0 reflects completely disjointed care (a different provider for each visit), and 1 reflects complete continuity with the same provider for all visits.

Bice-Boxerman Continuity of Care Index
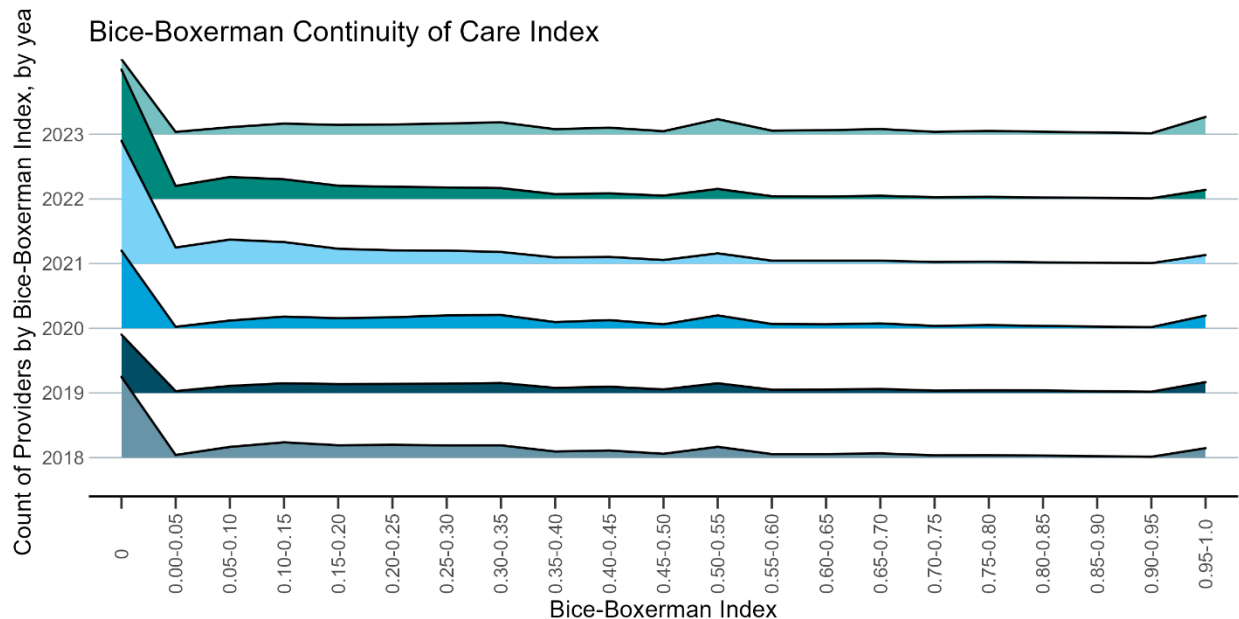
Index Value	0	0.01-0.1	0.1-0.2	0.2-0.3	0.3-0.4	0.4-0.5	0.5-0.6	0.6-0.7	0.7-0.8	0.8-0.9	0.9-1.0
2018											
Count of Providers	11,792	3,635	3,486	3,463	1,839	2,077	958	913	629	320	1,320
2019											
Count of Providers	8,502	2,350	2,467	2,719	1,566	1,890	879	875	734	399	1,510
2020											
Count of Providers	11,157	2,719	2,947	3,703	1,985	2,392	1,119	1,002	788	387	1,772
2021											
Count of Providers	19,814	6,187	3,883	3,457	1,794	1,943	792	626	442	192	1,201
2022											
Count of Providers	20,246	5,687	3,455	3,135	1,454	1,881	702	684	504	230	1,267
2023											
Count of Providers	10,933	2,492	2,628	3,201	1,618	2,586	1,026	1,062	832	383	2,420

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Year	2018	2019	2020	2021	2022	2023
Percent of providers with high continuity (index value ≥.7)	7.46%	11.06%	9.83%	4.55%	5.10%	12.46%

The Bice-Boxerman Continuity of Care (COC) index measures patient-level care continuity, with values ranging from 0 (completely fragmented care) to 1 (complete continuity with a single provider). In this metric, COC scores were calculated at the patient level and then averaged per provider. The reported values represent the distribution of providers across different continuity levels, and the percentage of providers whose average patient continuity score was ≥ 0.7.

In 2018, only 7.46% of providers served patient panels with high continuity (COC ≥ 0.7), rising to 11.06% in 2019. The proportion declined to 9.83% in 2020 and dropped further to 4.55% in 2021. A modest recovery was observed in 2022 (5.10%), followed by a substantial increase in 2023 to 12.46%—the highest value across the six-year period. This trajectory suggests that the waiver's effect may have been delayed or masked by pandemic-related disruptions. While continuity declined in the immediate post-implementation period, the strong recovery by 2023 provides partial support for the hypothesis.

Metric 23: Herfindahl-Hirschman Index (HHI): to measure market concentration using the sum of the squares of discharges[1] from a disease category, viewed as a proportion of all discharges from the hospital.
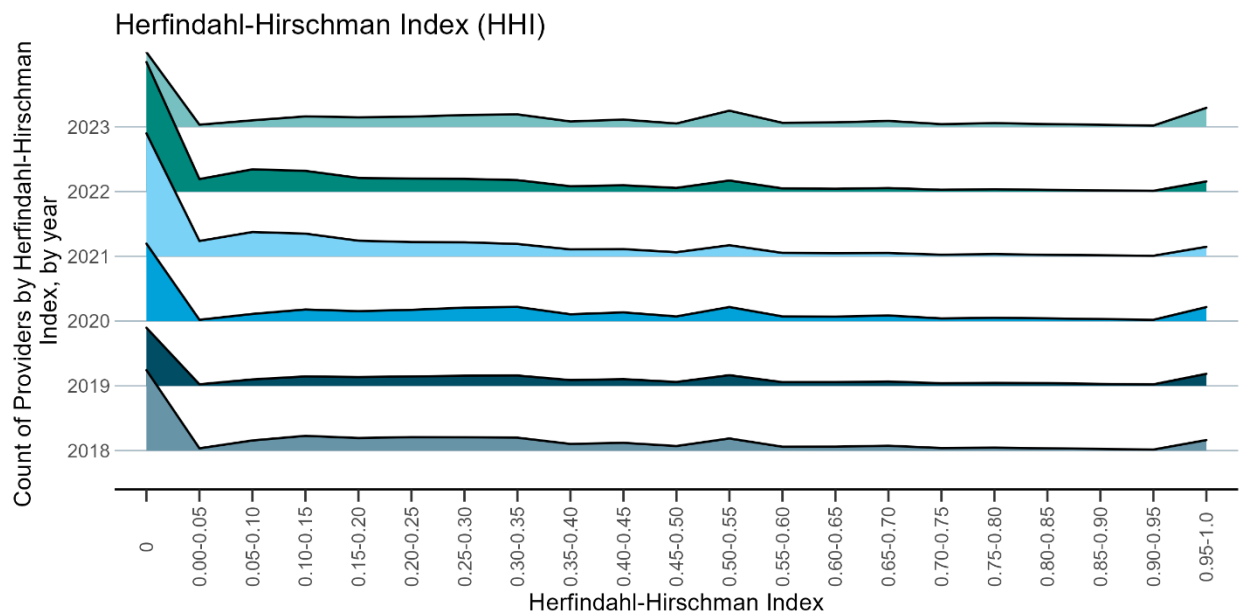
Index Value	0	0.01-0.1	0.1-0.2	0.2-0.3	0.3-0.4	0.4-0.5	0.5-0.6	0.6-0.7	0.7-0.8	0.8-0.9	0.9-1.0
2018											
Count of Providers	11,309	3,373	3,479	3,574	1,949	2,256	1,027	988	703	356	1,418
2019											
Count of Providers	8,142	2,158	2,436	2,770	1,675	1,990	957	929	778	440	1,616
2020											
Count of Providers	10,726	2,557	2,846	3,761	2,084	2,549	1,206	1,102	824	424	1,892
2021											
Count of Providers	19,082	6,188	3,969	3,599	1,904	2,052	868	669	497	218	1,285
2022											
Count of Providers	19,546	5,656	3,544	3,276	1,552	2,018	774	701	559	251	1,368

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[1] In this analysis, "discharges" refer to outpatient evaluation and management visits grouped by disease category. The Herfindahl-Hirschman Index (HHI) measures the concentration of these visits within a provider or practice. A higher index indicates visits are concentrated within fewer disease categories, suggesting greater continuity or specialization of care.

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2023										
Count of Providers	10,469	2,290	2,642	3,290	1,698	2,677	1,099	1,149	880	426	2,564

Year	2018	2019	2020	2021	2022	2023
Percent of providers with high continuity (index value ≥.7)	8.14%	11.86%	10.48%	4.96%	5.55%	13.26%

The Herfindahl-Hirschman Index (HHI) was used to assess the concentration of outpatient evaluation and management visits by disease category within each provider. Higher HHI values (closer to 1) reflect a more concentrated distribution of visits, suggesting greater care specialization or coordination, while lower values indicate greater dispersion across conditions and potentially more fragmented care. Providers were classified as having high continuity when their average HHI score was 0.7 or greater.

In 2018, 8.14% of providers had high concentration (HHI ≥ 0.7), increasing to 11.86% in 2019. This figure declined to 10.48% in 2020 and fell sharply to 4.96% in 2021. Continuity remained low in 2022 (5.55%) before rising significantly in 2023 to 13.26%. These results mirror the COC trend: an initial decline following waiver implementation, likely due to COVID-19, followed by a robust rebound. As such, this metric also offers partial support for the hypothesis, particularly in the later demonstration years.

Metric 24: Usual Provider of Care (UPC): The number of beneficiary visits to the provider or practice group with the highest number of visits divided by the total number of visits. (Density of care)

Usual Provider of Care (UPC)

The number of visits to the provider or practice group with the highest number of visits divided by the total number of visits
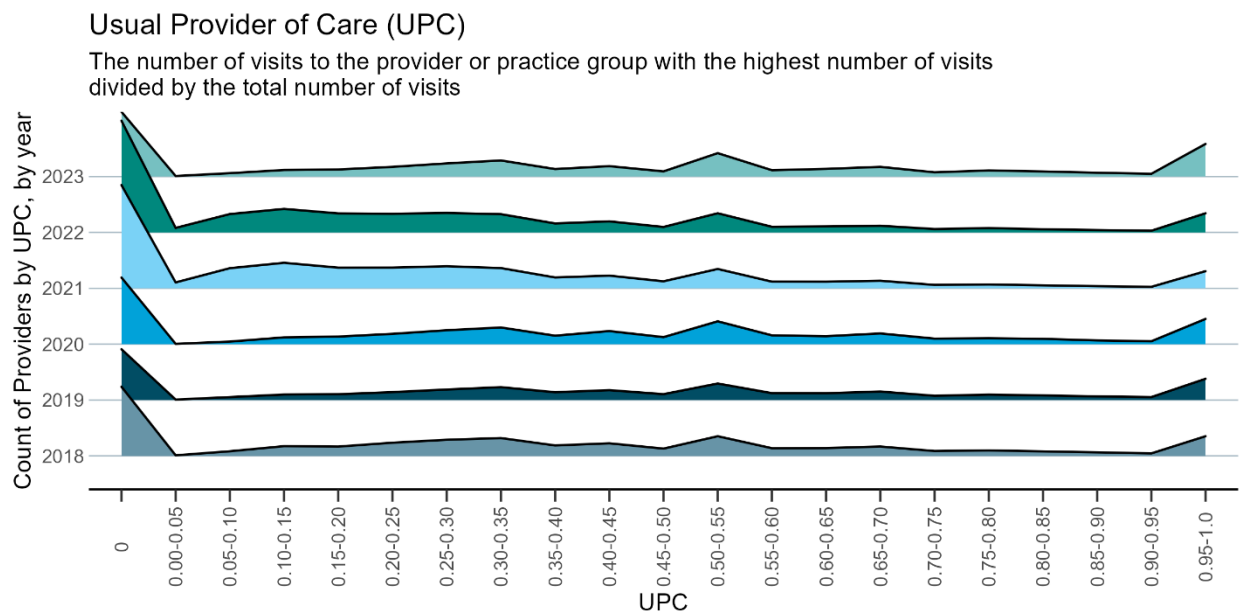
Index Value	0	0.01-0.1	0.1-0.2	0.2-0.3	0.3-0.4	0.4-0.5	0.5-0.6	0.6-0.7	0.7-0.8	0.8-0.9	0.9-1.0
2018											
Count of Providers	8,315	1,711	2,678	4,083	2,706	3,240	1,797	1,675	1,212	699	2,316
2019											
Count of Providers	6,103	1,019	1,623	2,815	2,072	2,719	1,574	1,489	1,210	762	2,505
2020											
Count of Providers	7,963	1,129	2,121	3,680	2,537	3,626	1,902	1,906	1,354	777	2,976
2021											
Count of Providers	13,138	5,373	4,821	5,044	2,778	3,125	1,539	1,259	816	407	2,031
2022											
Count of Providers	13,950	4,930	4,425	4,486	2,339	2,974	1,330	1,192	896	460	2,263
2023											
Count of Providers	7,770	1,180	1,985	3,503	2,103	3,441	1,609	1,627	1,356	755	3,855

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Year	2018	2019	2020	2021	2022	2023
Percent of providers with high continuity (index value ≥.7)	13.89%	25.17%	17.04%	8.07%	9.22%	20.44%

The Usual Provider of Care (UPC) index measures the proportion of visits a patient has with their most frequently seen provider or practice group, reflecting the density of care within a single care relationship. Scores range from 0 to 1, with higher values indicating that the majority of care is delivered by one provider, signaling stronger continuity. In this evaluation, UPC scores were calculated at the patient level and then averaged at the provider level. Providers with an average patient UPC score of 0.7 or higher were considered to be delivering high continuity of care.

In 2018, 13.89% of providers achieved high UPC scores (≥ 0.7), increasing to 25.17% in 2019. Continuity declined to 17.04% in 2020 and dropped further to 8.07% in 2021, before modestly increasing in 2022 (9.22%) and then rising sharply to 20.44% in 2023. This pattern suggests a strong post-pandemic recovery and re-stabilization of provider-patient relationships. The sharp increase in 2023 indicates renewed continuity of care and offers moderate support for the hypothesis—albeit with a delayed effect.

Metric 25: Sequential Continuity Index (SECON): The fraction of sequential visit pairs in which a patient sees the same provider (i.e., sees the same provider on two consecutive visits).

Sequential Continuity Index (SECON)
The fraction of sequential visit pairs in which a patient sees the same provider
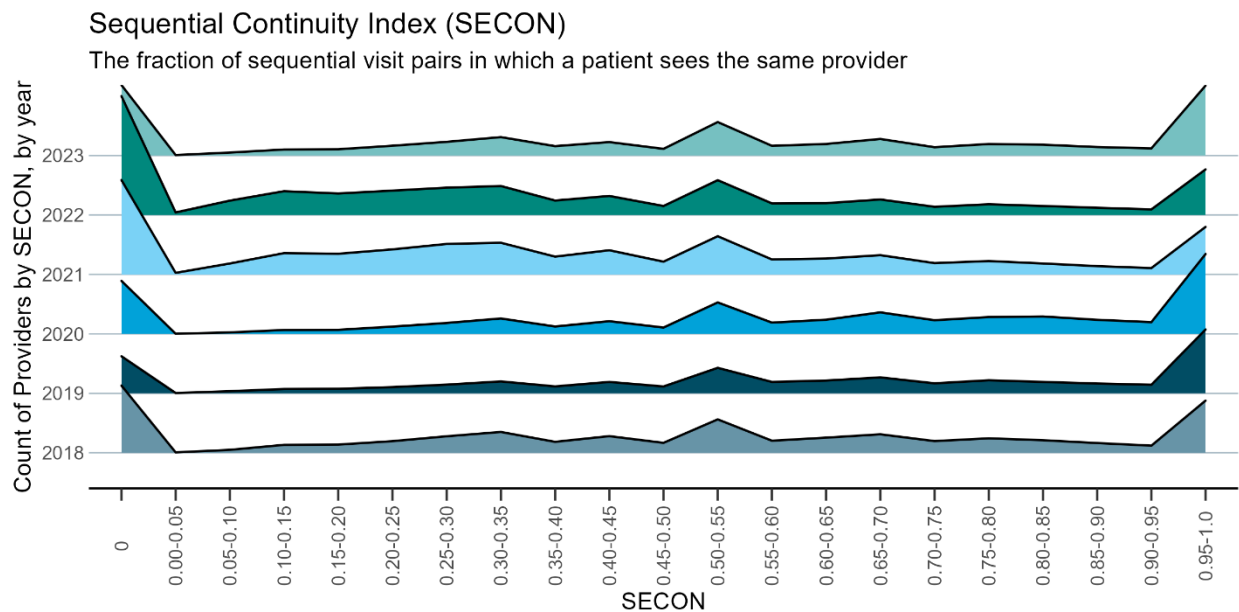
Index Value	0	0.01-0.1	0.1-0.2	0.2-0.3	0.3-0.4	0.4-0.5	0.5-0.6	0.6-0.7	0.7-0.8	0.8-0.9	0.9-1.0
2018											
Count of Providers	5,694	955	1,666	3,198	2,312	3,726	2,288	2,522	2,304	1,441	4,326
2019											
Count of Providers	3,164	550	919	1,780	1,533	2,765	2,035	2,135	2,111	1,531	5,368
2020											
Count of Providers	4,555	456	941	2,263	1,675	3,235	2,116	2,949	2,921	2,191	6,669
2021											
Count of Providers	8,153	2,793	3,788	5,315	3,535	4,369	2,561	2,563	2,052	1,218	3,984
2022											
Count of Providers	10,341	3,247	3,804	4,846	2,813	3,766	1,892	1,974	1,695	1,053	3,814
2023											
Count of Providers	6,037	751	1,351	2,783	1,882	3,444	1,744	2,060	1,943	1,329	5,860

Year	2018	2019	2020	2021	2022	2023
Percent of providers with high continuity (index value ≥.7)	26.52%	37.71%	39.31%	17.99%	16.72%	31.29%

The Sequential Continuity Index (SECON) measures the proportion of consecutive outpatient visits in which a patient sees the same provider, offering a dynamic view of how often care is maintained with a consistent provider over time. SECON is sensitive to the ordering of visits and captures the stability of provider relationships across successive appointments. In this evaluation, SECON scores were calculated at the patient level and averaged at the provider level. Providers were considered to deliver high continuity if their average patient SECON score was 0.7 or higher.

This metric showed the highest baseline continuity, with 26.52% of providers reaching high SECON values in 2018. Continuity rose further in 2019 (37.71%) and peaked in 2020 (39.31%). However, continuity declined substantially in 2021 (17.99%) and remained low in 2022 (16.72%) before rebounding to 31.29% in 2023. These results suggest that while the pandemic temporarily disrupted sequential care patterns, the system largely recovered by 2023. The upward trend in the final year provides evidence of renewed provider stability and supports the hypothesis in the later stages of the demonstration.

Across all five metrics, a consistent pattern emerges: moderate to strong continuity of care in the pre-pandemic period (2018–2019), significant disruption during the early pandemic and demonstration years (2020–2022), and a marked recovery in 2023. Although most metrics declined during the initial implementation of the waiver, this decline appears to have been driven primarily by system-wide effects of the COVID-19 pandemic, including reduced access to in-person visits, provider turnover, and increased reliance on telehealth.

The robust improvement observed in 2023 across all five metrics—particularly COC, HHI, UPC, and SECON—suggests that continuity of care has rebounded and, in some cases, surpassed pre-pandemic levels. This rebound may reflect both post-pandemic healthcare system stabilization and the cumulative effect of demonstration activities aimed at improving care consistency.

Therefore, while the immediate years following the waiver's implementation did not show clear gains in continuity, the later-stage improvements provide partial and time-sensitive support for the hypothesis. The demonstration's impact on continuity appears to have emerged gradually.

B. Goal 2 – Improve MCO Oversight Quality

Hypothesis 2: The demonstration will improve MCO quality oversight.

Metric 26: The rate of MCO enrollees meeting the HEDIS 12-month continuous enrollment standard for each year.

Metric 26 was initially defined as the rate of MCO enrollees who experienced a coverage gap divided by the total number of MCO enrollees; it was hypothesized that this trend would decline over the observation period as the waiver would improve enrollment rates. However, as data processing began, it was realized that there was far more overlap between the MCO and overall Illinois Medicaid than anticipated due to a mandatory managed care enrollment policy implemented in 2018. Consequently, the difference between metric 26 and metric 1 ceased to be meaningful, and were ultimately deemed duplicative. As a result, the metric 1 results have been reported again below, and is acceptable for measuring the impact of the waiver on both hypothesis 1 and hypothesis 2.

Year	2018	2019	2020	2021	2022	2023
Percent	2.32%	4.16%	3.68%	1.89%	1.42%	1.43%
(n)	(49,767)	(80,335)	(64,265)	(33,663)	(26,002)	(29,021)

As with metric 1, this decreasing trend supports the hypothesis that the waiver has resulted in more consistent Medicaid coverage for MCO enrollees.

C. Goal 3 – Avoid Administrative Complexities

Hypothesis 3: The demonstration will maintain or reduce administrative costs and time*

Metric 27: Administrative costs to reenroll beneficiaries who submit late redetermination paperwork within the 90-day reconsideration period divided by the number of Medicaid enrollees (quarterly and annually, as feasible, during the pre- vs. post-intervention period

Metric 28: Staff time equivalents needed to reenroll beneficiaries who submit late redetermination paperwork within the 90-day reconsideration period divided by the number of Medicaid enrollees.

Metric 29: Administrative costs to process applications

Metric 30: Staff time (including casework staff) equivalents needed to process applications

The analysis for hypothesis 3, metrics 27-30 will be collected through the upcoming stakeholder interviews. Results will be included in the Summative Evaluation report.

Metric 31: Medicaid application backlog: the number of Medicaid applications that have surpassed 45 days
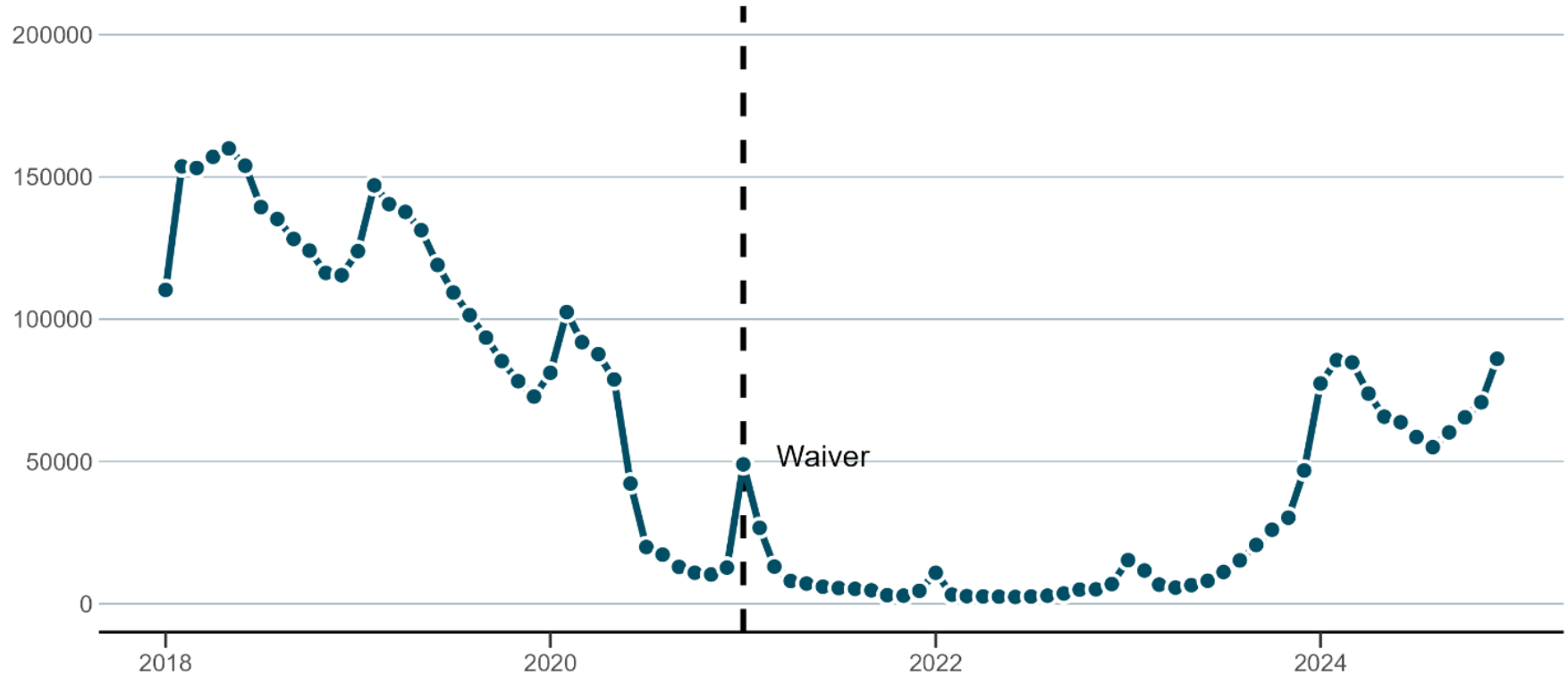
As noted in Section IV, this metric was adjusted upon receipt of the data, as there is no way to distinguish between renewal applications and initial applications. The total monthly count of all applications which have surpassed 45 days is reported below.

This metric used Illinois HFS administrative data outside of the EDW, which includes the most recent application backlog data from 2024.

Application Backlogs

Count of applications on hand which have exceeded 45 days

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2018	110,307	153,699	153,153	157,067	160,009	153,955	139,406	135,219	128,228	124,113	116,277	115,477
2019	123,917	147,038	140,445	137,712	131,293	119,060	109,371	101,440	93,530	85,294	78,207	72,807
2020	81,180	102,523	91,907	87,738	78,835	42,254	19,931	17,259	12,946	10,897	10,273	12,701
2021	48,982	26,682	13,051	8,000	7,087	5,986	5,508	5,226	4,711	2,996	2,835	4,545
2022	10,882	3,190	2,684	2,571	2,492	2,388	2,544	2,826	3,613	4,970	5,073	6,916
2023	15,329	11,667	6,709	5,678	6,539	8,065	11,148	15,229	2,0653	25,999	30,250	46,829

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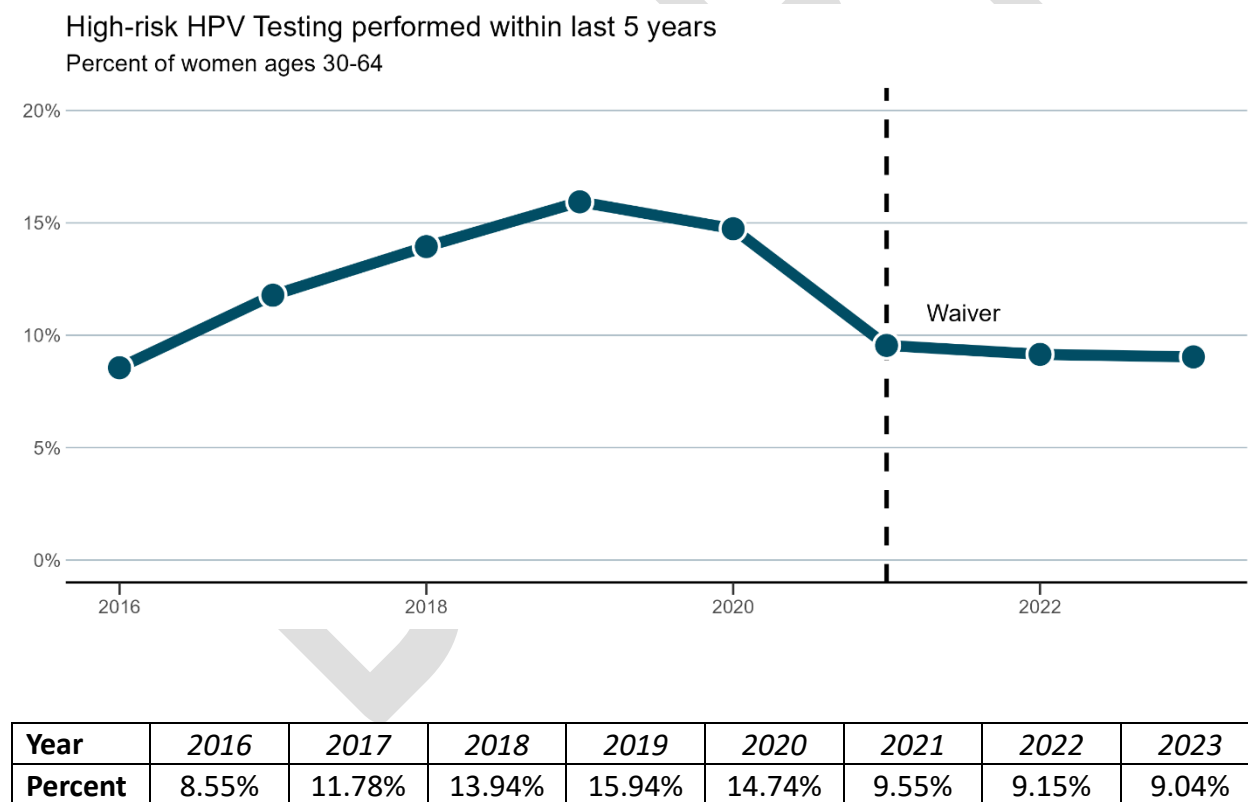| 2024 | 77,421 | 85,615 | 84,812 | 73,855 | 65,742 | 63,789 | 58,596 | 55,020 | 60,242 | 65,505 | 70,809 | 86,091 |

The Medicaid application backlog has shown significant fluctuations over time. From 2018 to 2021, the backlog declined, reaching its lowest point in late 2021. This reduction may have been influenced by process streamlining, policy changes, or temporary measures implemented during the COVID-19 pandemic decrease in renewal application. However, in 2022, the backlog began rising again, with a sharp increase observed in 2023 and 2024. By December 2024, the number of delayed applications reached its highest level since 2020. The recent surge in backlog may be attributed to the resumption of Medicaid redeterminations following the end of the federal continuous coverage requirement in April 2023, which resulted in a higher volume of applications requiring processing.

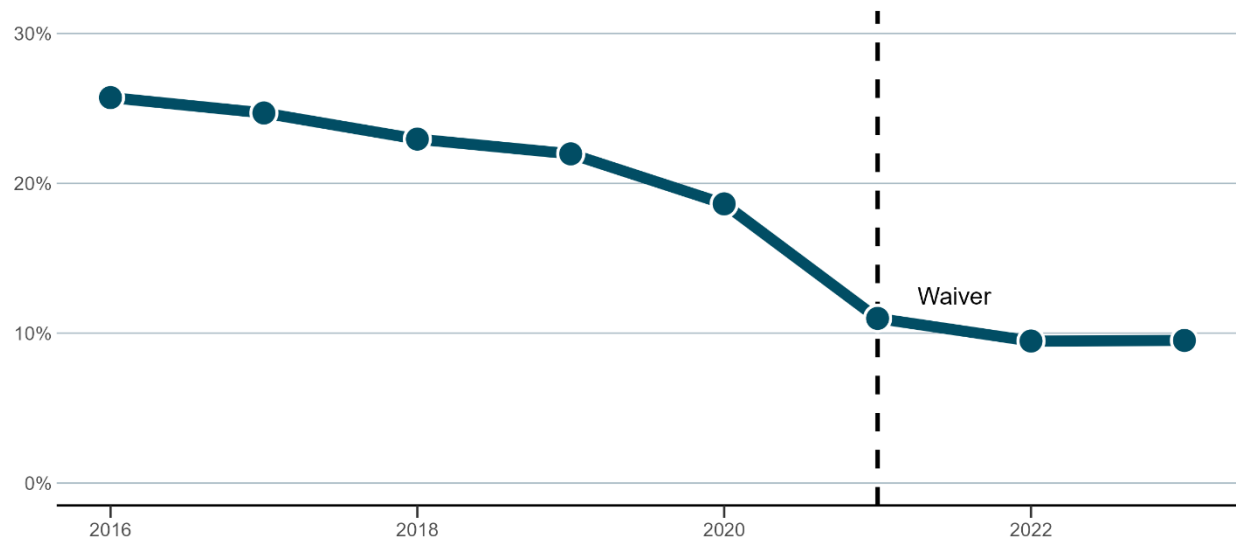# D. Goal 4 – Provide Quality Care and Improve Health Outcomes

Hypothesis 4.1: The demonstration will improve the quality of care.

This hypothesis measured quality of care using 12 metrics. These included four metrics specific to women (i.e., cervical cancer screening, Chlamydia screening, breast cancer screening, prenatal and postpartum care), and three metrics addressing care for certain diagnoses (i.e., controlling high blood pressure, hemoglobin A1C control, and HIV viral load suppression). Four additional metrics focused on substance use treatment and mental health follow-up (i.e., initiation and engagement in substance use treatment, follow-up after mental health treatment, continuity of pharmacotherapy for OUD, and follow-up after SUD-related emergency department visits). Finally, one metric captured preventive care for adolescents through immunization rates. While the original evaluation plan proposed using data from 2018 onward, we extended the pre-waiver period for these metrics to include data from 2016, where data access and quality allowed.

Metric 32: Cervical Cancer Screening (CMIT#118)

High-risk HPV Testing performed within last 5 years
Percent of women ages 30-64

Year	2016	2017	2018	2019	2020	2021	2022	2023
Percent	8.55%	11.78%	13.94%	15.94%	14.74%	9.55%	9.15%	9.04%

Rate of Cervical Cytology performed within past 3 years
Percent of women ages 21-64

Year	2016	2017	2018	2019	2020	2021	2022	2023
Rate	25.72%	24.69%	22.95%	21.97%	18.63%	10.98%	9.47%	9.51%

Rate of Cervical Cytology/High-risk HPV cotesting performed within past 5 years
Percent of women, ages 30-64
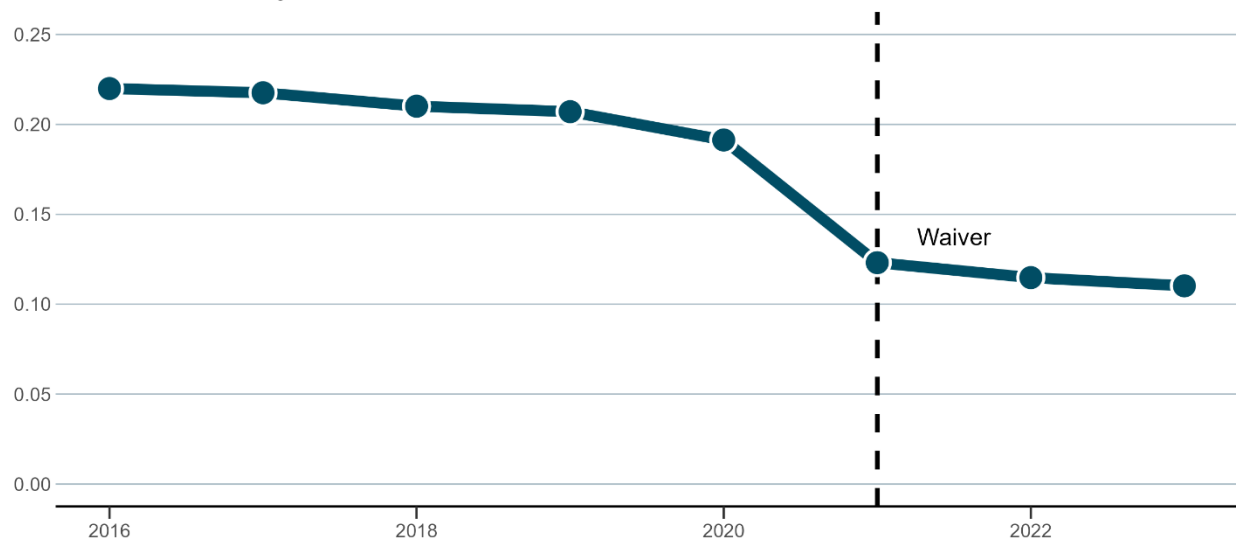
Year	2016	2017	2018	2019	2020	2021	2022	2023
Rate	21.99%	21.76%	21.01%	20.71%	19.13%	12.31%	11.48%	11.02%

The cervical cancer screening rate was divided into three separate measures: the rate of HPV testing performed in the past 5 years among women aged 30-64, the rate of cervical cytology performed within 3 years among women aged 21-64, and a combined rate of cervical cytology and HPV co-testing within 5 years among women aged 30-64. All three measures show a decline

in testing rates beginning in 2020, coinciding with the onset of the COVID-19 pandemic and the waiver implementation in 2021. While healthcare disruptions during the pandemic likely contributed to lower screening rates in 2020, the continued decline after the waiver's introduction does not support the hypothesis that the demonstration improved the quality of care in this area.

However, this effect cannot be entirely attributed to the waiver implementation. The effects of the COVID-19 pandemic, whose span roughly begins a year before the waiver implementation, have not been examined in this report. The pandemic severely disrupted access to care, leading to the cancellation of many non-critical or preventative procedures, such as cancer screenings, which are likely to confound these results.

Consequently, while the current findings do not support the hypothesis, the methodological limitations warrant further investigation using more robust techniques, such as CITS or DiD regression, which will be included in the final report.

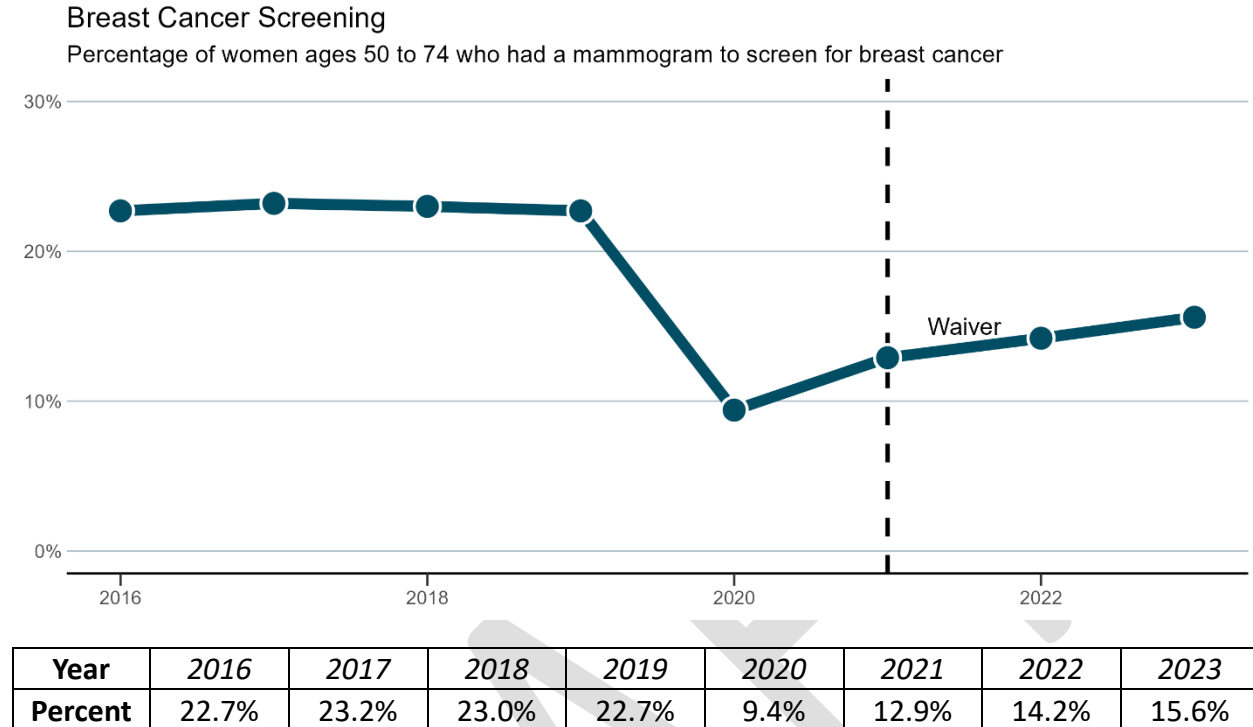**Metric 33**: Chlamydia Screening in Women (CMIT#128)

Chlamydia Screening

Percentage of Women who were Identified as Sexually Active
and who had at Least One Test for Chlamydia, ages 21-24
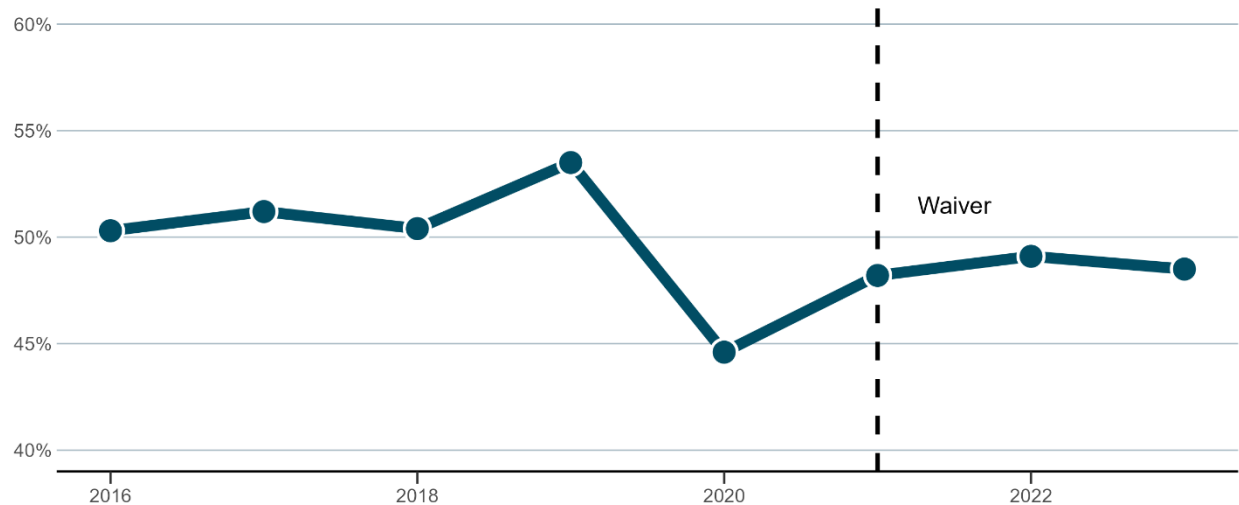
Year	2016	2017	2018	2019	2020	2021	2022	2023
Percent	50.3%	51.2%	50.4%	53.5%	44.6%	48.2%	49.1%	48.5

The chlamydia screening rate for women has shown fluctuations over the past several years, with a significant decline observed in 2020, likely due to disruptions caused by the COVID-19 pandemic. Between 2016 and 2019, the screening rate remained relatively stable, ranging from 50.3% to 53.5%. However, in 2020, the rate dropped sharply to 44.6%, marking the lowest level in the observed period. This decline coincides with pandemic-related barriers to healthcare access, such as reduced in-person visits and shifting healthcare priorities. A modest recovery followed, with the rate increasing to 48.2% in 2021 and stabilizing around 48.5% in 2023. While this rebound suggests a partial return to pre-pandemic screening levels, the measure remains below 2019 levels. Given these trends, the data neither strongly supports nor contradicts the hypothesis.

Metric 34: Breast Cancer Screening (CMIT#93)

Breast Cancer Screening
Percentage of women ages 50 to 74 who had a mammogram to screen for breast cancer

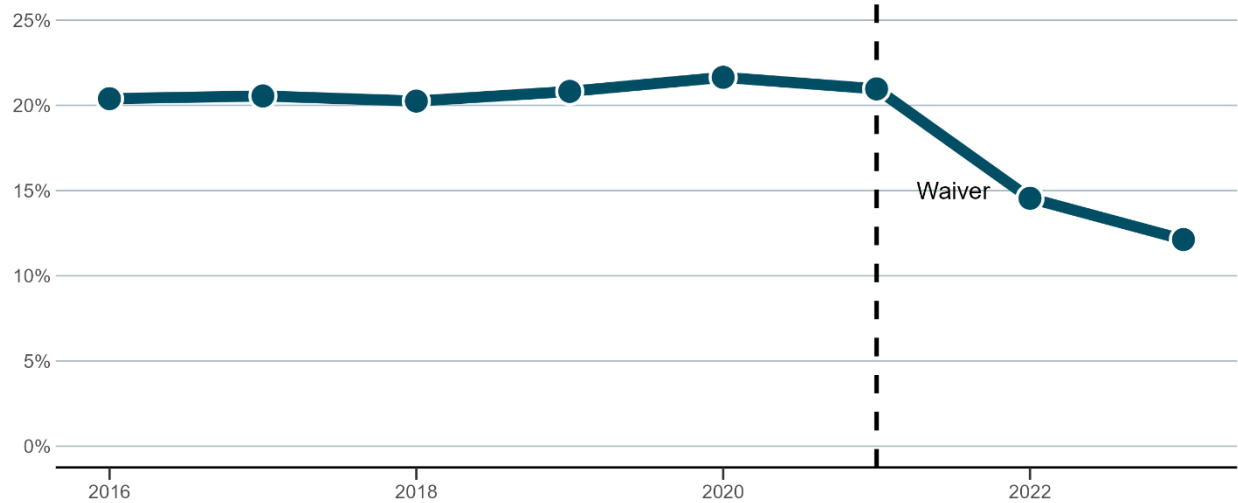| Year	2016	2017	2018	2019	2020	2021	2022	2023
Percent	22.7%	23.2%	23.0%	22.7%	9.4%	12.9%	14.2%	15.6%

The breast cancer screening rate remained relatively stable between 2016 and 2019, fluctuating between 22.7% and 23.2%. However, in 2020, a sharp decline was observed, with the screening rate dropping to 9.4%, likely due to disruptions in healthcare services caused by the COVID-19 pandemic. A gradual recovery followed, with the rate increasing to 12.9% in 2021 and continuing to rise to 15.6% in 2023. While this rebound suggests a return to regular screening practices, the rate remains below pre-pandemic levels. Like chlamydia screening trends, this measure exhibits a disruption followed by partial recovery, meaning the results neither strongly support nor contradict the hypothesis.

Metric 35: Prenatal and Postpartum Care (CMIT#581)
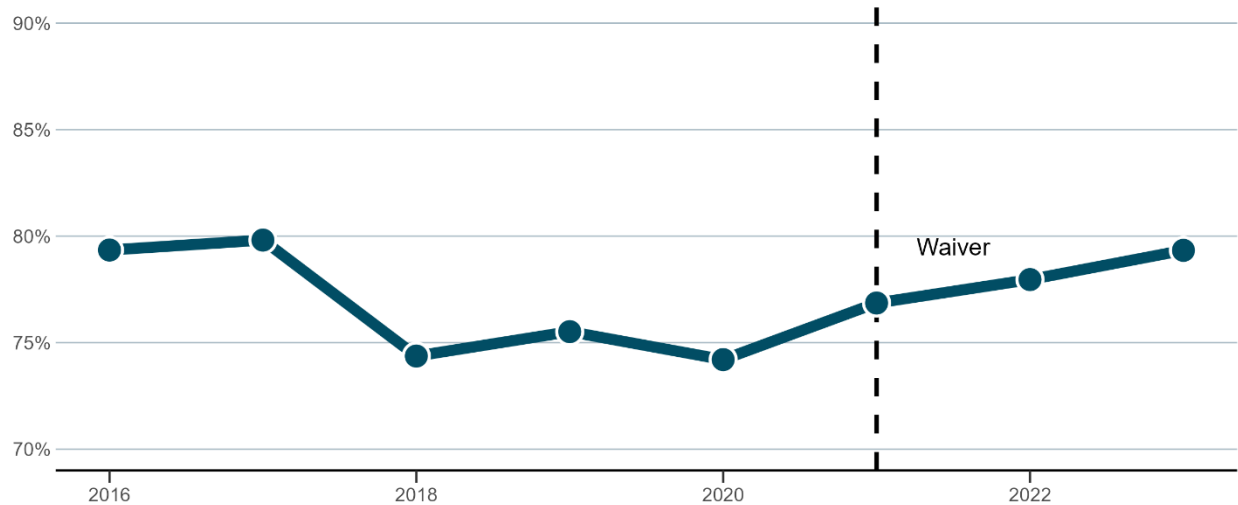
Timeliness of Prenatal Care

Percentage of deliveries that received a prenatal care visit in the first trimester, on or before the enrollment start date or within 42 days of enrollment

Year	2016	2017	2018	2019	2020	2021	2022	2023
Rate	20.39%	20.55%	20.25%	20.82%	21.64%	20.96%	14.55%	12.13%

Postpartum Care

Percentage of deliveries that had a postpartum visit on or between 7 and 84 days after delivery
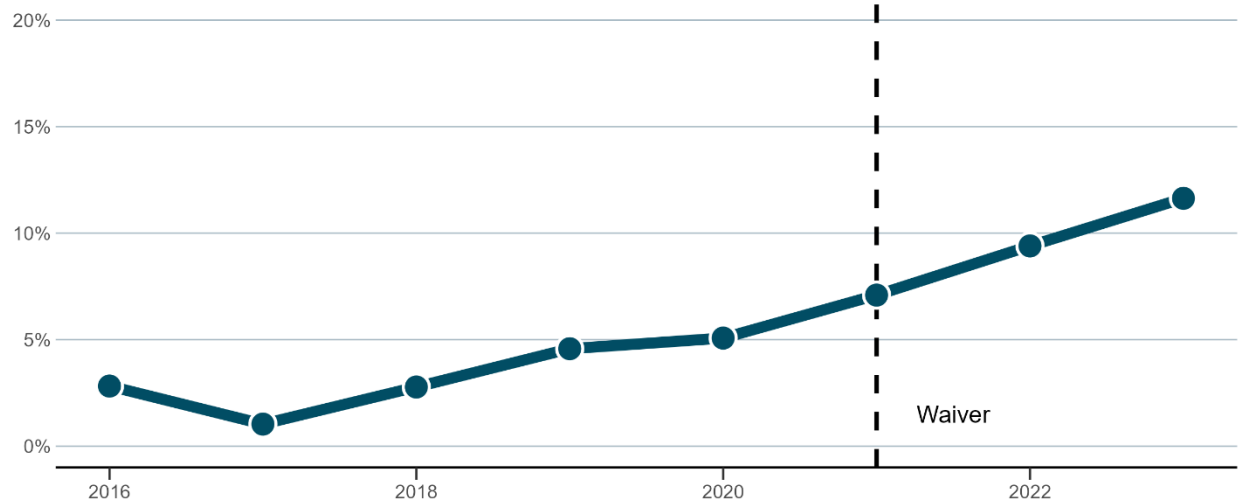

Year	2016	2017	2018	2019	2020	2021	2022	2023
Rate	79.35%	79.81%	74.37%	75.52%	74.20%	76.86%	77.96%	79.33%

This metric was divided into two measures, each showing conflicting trends over time. The timeliness of prenatal care remained relatively stable from 2016 to 2021, peaking at 21.64% in 2020. However, a sharp decline followed, with rates dropping to 14.55% in 2022 and 12.13% in 2023. This suggests increasing challenges in ensuring timely prenatal care access in recent years. Meanwhile, the percentage of deliveries with a postpartum visit fluctuated between 74.20% and 79.81% from 2016 to 2020. After a slight decrease in 2019 and 2020, the rate increased again in 2021 and continued rising through 2023, reaching 79.33%. This upward trend suggests improvements in postpartum care engagement. These opposing trends suggest that while prenatal care access has seen a significant decrease, postpartum care utilization remained relatively stable until recently. Due to these mixed patterns, this metric does not provide clear evidence either supporting or contradicting the hypothesis.

Metric 36: Controlling High Blood Pressure (CMIT#167)

Controlling High Blood Pressure

Percentage of beneficiaries ages 18 to 85 who had a diagnosis of hypertension and whose blood pressure was adequately controlled during the measurement year
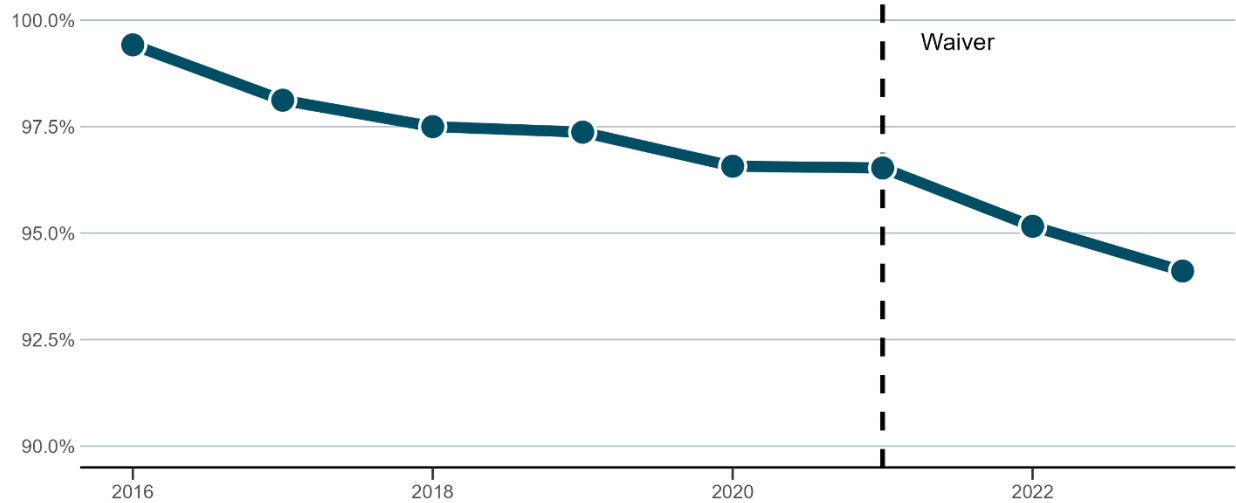

Year	2016	2017	2018	2019	2020	2021	2022	2023
Rate	2.82%	1.04%	2.78%	4.57%	5.07%	7.09%	9.34%	11.63%

The controlling high blood pressure metric shows a continuous upward trend from 2016 to 2023, with a notable increase during the waiver period (2021–2023). Prior to the waiver, the percentage of beneficiaries with adequately controlled blood pressure fluctuated at lower levels, reaching 5.07% in 2020. However, after the waiver's implementation in 2021, the rate increased more sharply, rising from 7.09% in 2021 to 11.63% in 2023. As a result, this trend supports the waiver hypothesis; albeit support must be verified with more rigorous testing in the final report.

Metric 37: Hemoglobin A1c Control for Patients with Diabetes (CMIT#148)

Hemoglobin A1C Control for patients with diabetes

Percentage of beneficiaries ages 18 to 75 with diabetes (type 1 and type 2)
whose hemoglobin A1c (HbA1c) was poorly controlled (≥ 9%)

Year	2016	2017	2018	2019	2020	2021	2022	2023
Rate	99.42%	98.12%	97.50%	97.37%	96.57%	96.53%	95.16%	94.11%

Metric 37 results show a steady decline in the percentage of Medicaid beneficiaries aged 18 to 75 with diabetes whose hemoglobin A1c (HbA1c) levels were at least poorly controlled from 2016 to 2023. The proportion decreased from 99.42% in 2016 to approximately 94% in 2023, indicating improvements in the quality of diabetes management. The trend continued downward after 2021 waiver implementation and therefore supports the waiver hypothesis.

Metric 38: HIV Viral Load Suppression (CMIT#325)

HIV Viral load supression

Percentage of beneficiaries age 18 and older with a diagnosis of Human Immunodeficiency Virus (HIV) who had a HIV viral load less than 200 copies/mL at last HIV viral load test.
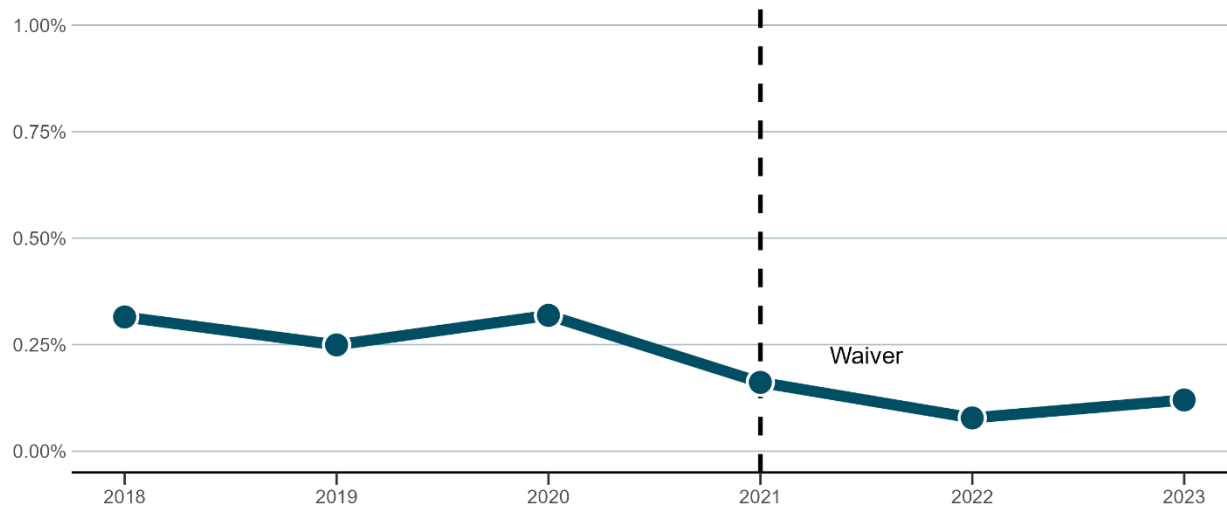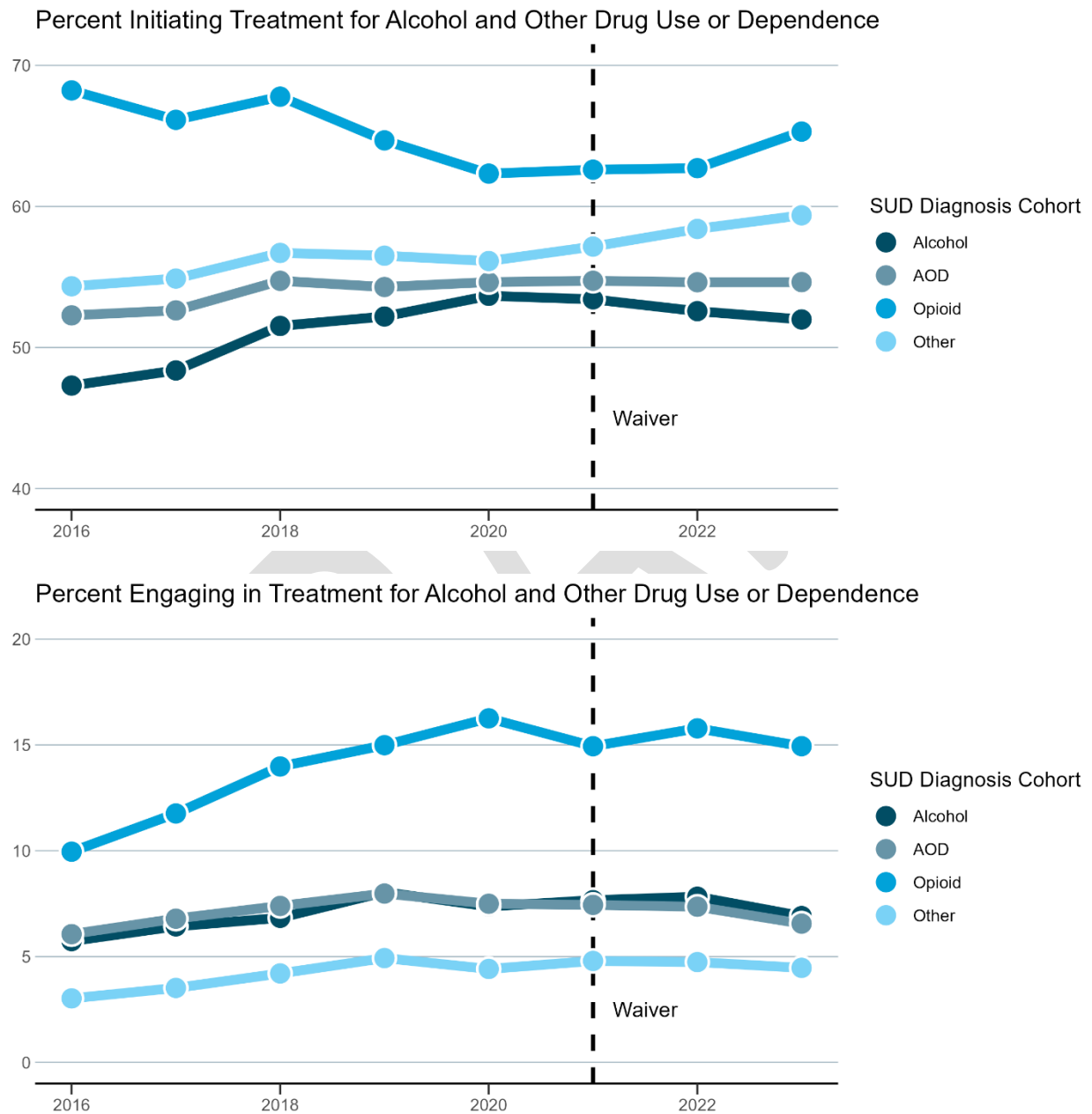

Year	2018	2019	2020	2021	2022	2023
Rate	.315%	.249%	.319%	.161%	.078%	.120%

Due to a data error present on the database provided to the evaluator, reliable estimates of the HIV Viral Load Suppression percentage were not available for years 2016 and 2017. However, the data available still covers a reasonable amount of time pre- and post-waiver, from 2018 to 2023.

Between 2018 and 2020, the suppression rate fluctuated but remained around 0.25% to 0.32%. However, following the waiver implementation in 2021, the rate dropped to 0.161% in 2021 and further declined to 0.078% in 2022, indicating a worsening trend in viral load suppression. In 2023, there was a slight recovery to 0.120%, but levels remained lower than pre-waiver years. Consequently, this measure does not support the waiver hypothesis. However, the overall changes are quite small (<1% per measure year), leaving the overall clinical significance of this trend in doubt. However, the proportion being extremely low is a cause for concern regardless of wavier impact, indicating that beneficiaries either receive antiretroviral therapy from other providers or else face significant barriers to care access.

65

Metric 39: Initiation and Engagement of Alcohol and Other Drug Use or Dependence Treatment (CMIT#394)

Below are the percentages for Medicaid beneficiaries who initiated or engaged in treatment by substance, including Alcohol Use Disorder, Opioid Use Disorder, any other substance use disorder, and the total sum of the diagnosis cohort stratifications (AOD).

Percent Initiating Treatment for Alcohol and Other Drug Use or Dependence

Percent Engaging in Treatment for Alcohol and Other Drug Use or Dependence

Rate of SUD Treatment Initiation (Percent)								
Year	*2016*	*2017*	*2018*	*2019*	*2020*	*2021*	*2022*	*2023*
Alcohol	47.31	48.38	51.53	52.20	53.67	53.42	52.58	51.99
Opioid	68.22	66.14	67.78	64.68	62.33	62.61	62.72	63.31

Other	54.34	54.89	56.71	56.51	56.13	57.16	58.41	59.37
AOD (total)	52.28	52.63	54.73	54.29	54.64	54.73	54.63	54.64
Rate of SUD Treatment Engagement (Percent)								
Year	*2016*	*2017*	*2018*	*2019*	*2020*	*2021*	*2022*	*2023*
Alcohol	5.73	6.43	6.83	8.04	7.37	7.66	7.83	6.91
Opioid	9.96	11.76	13.98	14.99	16.26	14.94	15.78	14.94
Other	3.03	3.52	4.20	4.93	4.41	4.79	4.74	4.47
AOD (total)	6.06	6.79	7.39	7.98	7.50	7.44	7.36	6.56

The percentage of Medicaid beneficiaries initiating and engaging in treatment for alcohol and other drug (AOD) use or dependence presents mixed findings regarding the demonstration's impact on the quality of care. The total AOD treatment initiation rate increased from 52.28% in 2016 to 54.73% in 2020, then slightly declined to 54.64% in 2023. Across substance categories, alcohol-related treatment initiation followed a similar trend as total AOD, while opioid-related initiation followed a somewhat different trend---declining during the pre-waiver period but marginally increasing during the post-waiver period, from 62.61% in 2021 to 63.31% in 2023. Meanwhile, treatment initiation for other substance use disorders steadily increased from 54.34% in 2016 to 59.37% in 2023.

Like the initiation rate, AOD treatment engagement rate, which reflects sustained participation in care, followed a generally increasing trend until 2020, but declined post-waiver. The overall AOD engagement rate rose from 6.06% in 2016 to a peak of 7.98% in 2019, then dropped to 6.56% in 2023. By substance category, alcohol-related and other substance engagement closely followed the total AOD trend, increasing until 2019 before fluctuating post-2020 with minor variations. Opioid-related engagement followed a similar trend, but peaking in 2020 before fluctuating in subsequent years.

Given these patterns, the data does not provide strong evidence that the demonstration improved the quality of SUD care, as neither treatment initiation nor engagement showed consistent improvement after its implementation.

Metric 40: Follow-up After Hospitalization for Mental Illness among Youth and Adults within 7 days or 30 days (CMIT#268)
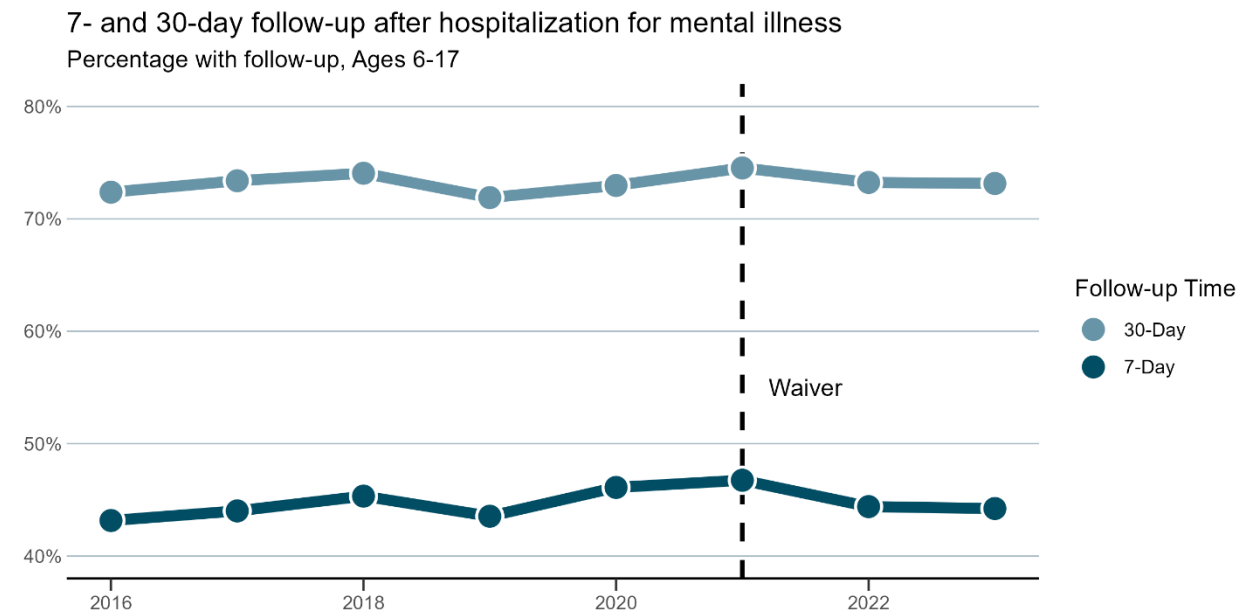
7- and 30-day follow-up after hospitalization for mental illness
Percentage with follow-up, Ages 6-17

7-Day Follow-up, Ages 6-17								
Year	*2016*	*2017*	*2018*	*2019*	*2020*	*2021*	*2022*	*2023*
Rate	43.16%	44.01%	45.33%	43.54%	46.10	46.74%	44.39%	44.22%

30-Day Follow-up, Ages 6-17								
Year	*2016*	*2017*	*2018*	*2019*	*2020*	*2021*	*2022*	*2023*
Rate	72.37%	73.39%	74.06%	71.89%	72.97%	74.53%	73.24%	73.15%

7- and 30-day follow-up after hospitalization for mental illness
Percentage with follow-up, Ages 18-64
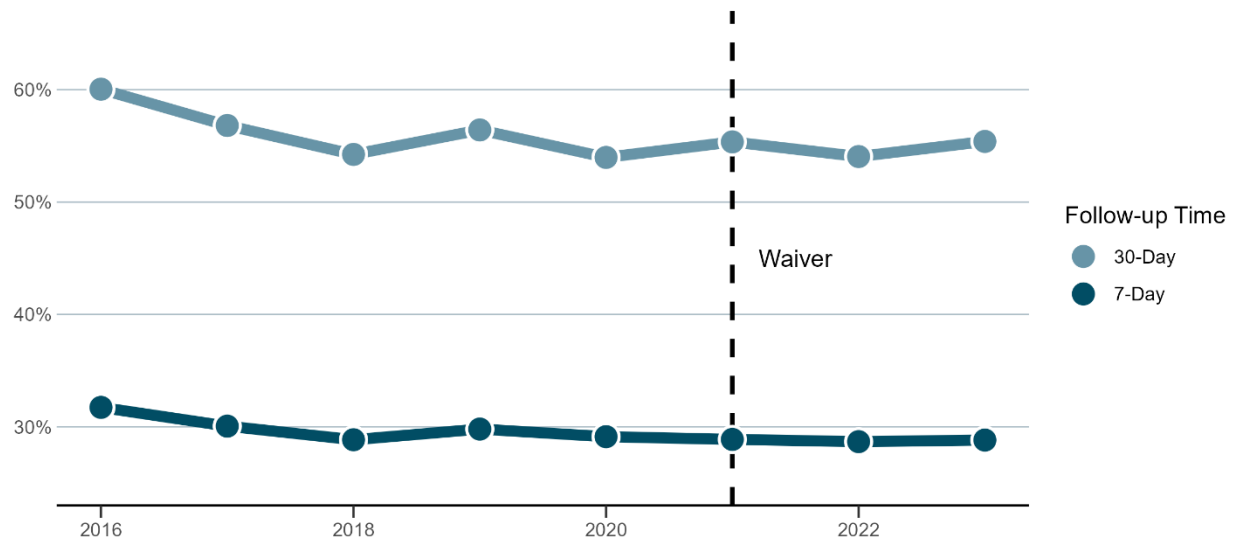
7-Day Follow-up, Ages 18-64								
Year	*2016*	*2017*	*2018*	*2019*	*2020*	*2021*	*2022*	*2023*
Rate	31.73	30.06	28.85	29.80	29.12	28.88	28.68	28.82

| 30-Day Follow-up, Ages 18-64								
Year	*2016*	*2017*	*2018*	*2019*	*2020*	*2021*	*2022*	*2023*
Rate	60.04	56.81	54.24	56.42	53.97	55.35	54.05	55.39

The follow-up rates after hospitalization for mental illness within 7 days and 30 days have remained stable over the years across both age groups (ages 6-17 and 18-64). While youth consistently had higher follow-up rates than adults---for example, with 30-day follow-up ranging from 72-75% for youth compared to 54-60% for adults---there were no notable changes in trend between the pre- and post-waiver periods for either group. Additionally, common disruptions such as the COVID-19 pandemic do not appear to have impacted these trends. As a result, this measure neither supports nor contradicts the waiver hypothesis.

Metric 41: Use of Pharmacotherapy for Opioid Use Disorder (CMIT#750)

Metric 41 was anchored on July 1 of the year prior to the measure year, and on June 30 of the measure year. To avoid confusion with the other metrics, which are largely anchored on December 31st of the measure year, Metric 41 is reported with both years labelled.

Pharmacotherapy for Opioid Use Disorder

Percentage of new opioid use disorder (OUD) pharmacotherapy events
with OUD pharmacotherapy for 180 or more days among members aged 16 or older with a diagnosis
of OUD
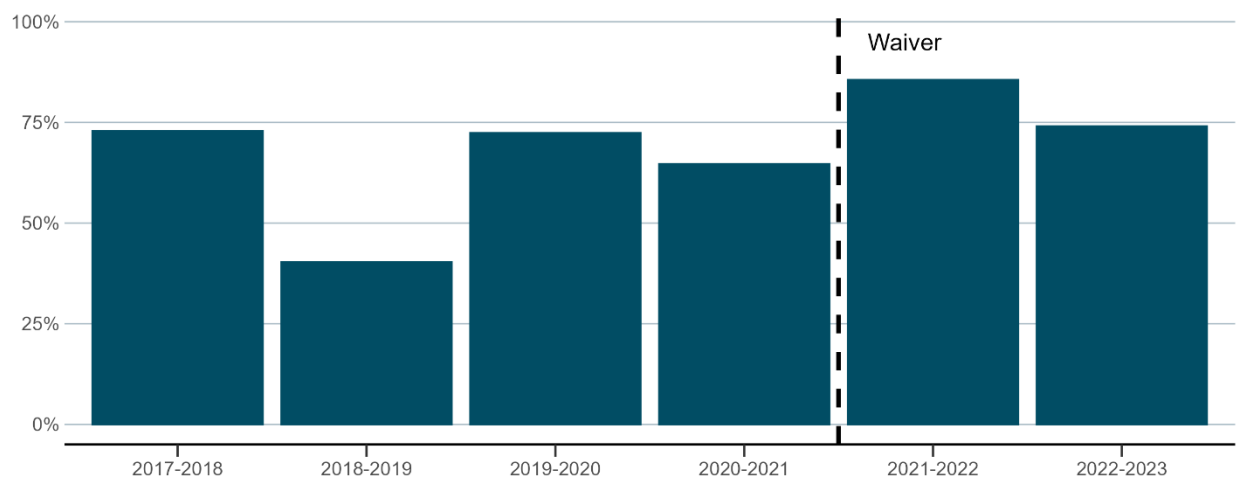
Time Period (July 1- June 30)	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
Percent	72.77%	40.27%	72.32%	64.59%	85.51%	73.80%

Overall, the continuity of pharmacotherapy for OUD has fluctuated over time, with a notable increase following the implementation of the waiver. After the waiver, pharmacotherapy utilization peaked at 85.51%, remaining above pre-waiver levels despite a slight decline in the following fiscal year. While this post-waiver drop warrants further investigation, the overall trend supports the hypothesis that the waiver enhanced continuity of pharmacotherapy for Medicaid beneficiaries.

Metric 42: Follow-Up After Emergency Department Visit for Alcohol and Other Drug Use or Dependence (CMIT#264)

7- and 30-day follow-up after ED Visit for substance use
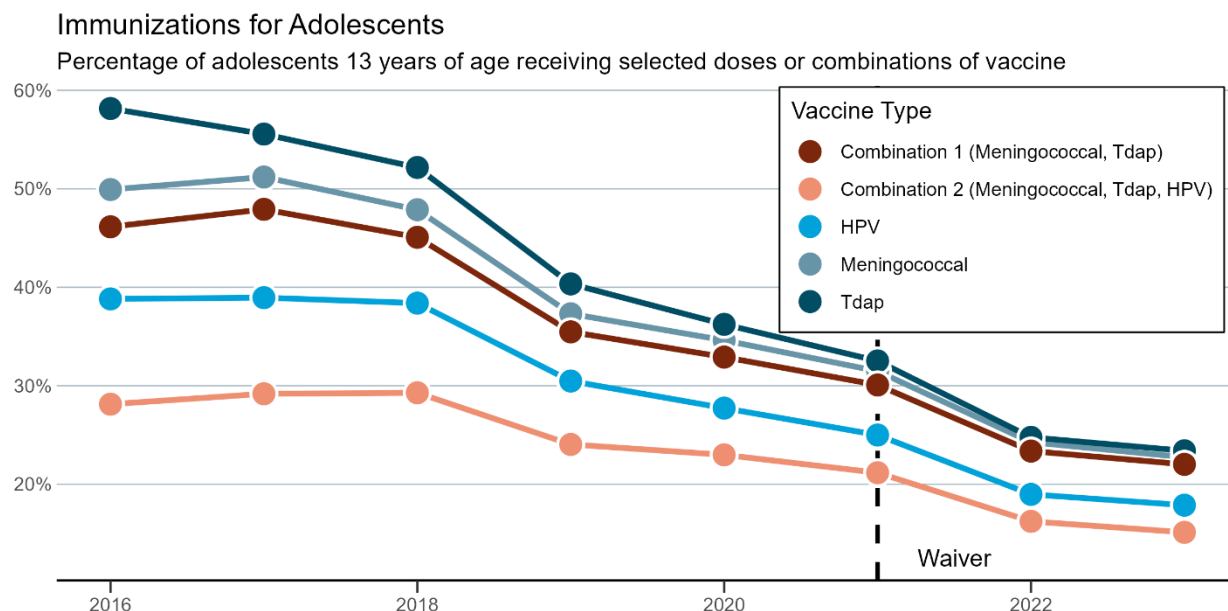Percentage with follow-up, ages 18+
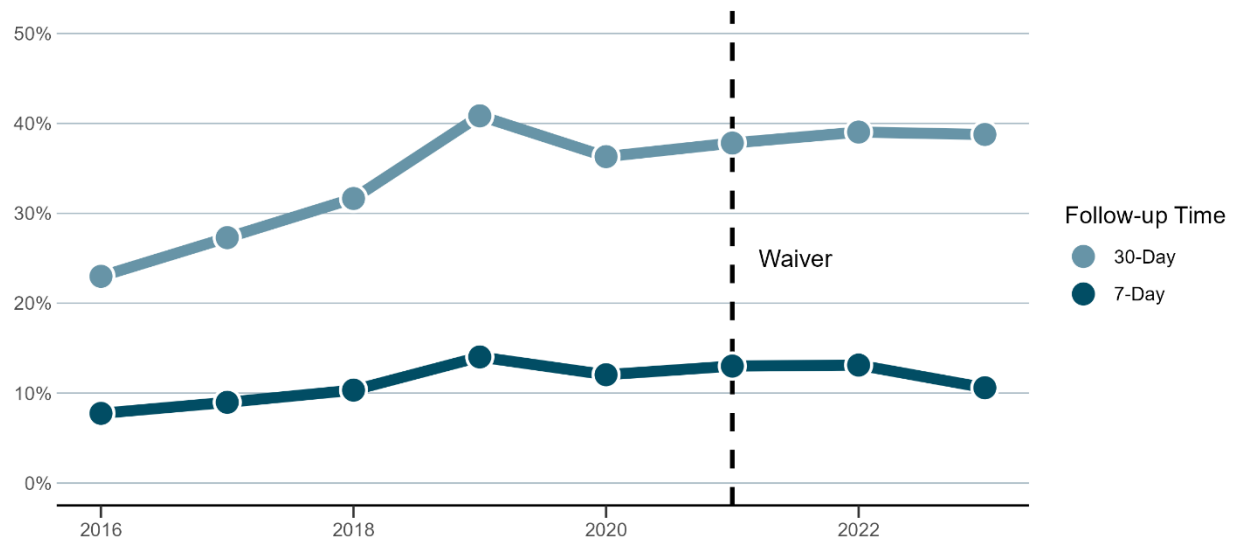
7-Day Follow-up

Year	2016	2017	2018	2019	2020	2021	2022	2023
Rate	7.74%	8.97%	10.33%	14.02%	12.04%	13.01%	13.12%	10.59%

30-Day Follow-up

Year	2016	2017	2018	2019	2020	2021	2022	2023
Rate	22.99%	27.29%	31.65%	40.84%	36.30%	37.81%	39.04%	38.77%

The follow-up rates after an emergency department (ED) visit for alcohol and other drug use or dependence have shown mixed trends over time. The 7-day follow-up rate steadily increased from 2016 to 2019, reaching a peak of 14.02%. However, this rate declined in 2020, likely due to pandemic-related disruptions in healthcare access, before rebounding slightly in 2021 and 2022. In 2023, the rate fell again to 10.59%, suggesting ongoing challenges in ensuring timely follow-up care after ED visits for substance use disorders. The 30-day follow-up rate followed a similar upward trajectory from 2016 to 2019, peaking at 40.84%. Although it declined in 2020, the rate showed gradual recovery in the following years, stabilizing around 38.77% in 2023. This suggests that longer-term follow-up care remains more consistent than immediate post-ED engagement. Overall, this measure neither supports nor contradicts the waiver hypothesis.

Metric 43: Immunizations for Adolescents (CMIT#363)

Immunizations for Adolescents

Percentage of adolescents 13 years of age receiving selected doses or combinations of vaccine

Year	2016	2017	2018	2019	2020	2021	2022	2023
Meningococcal	49.92%	51.19%	47.87%	37.30%	34.61%	31.47%	24.26%	22.73%
Tdap	58.15%	55.55%	52.16%	40.34%	36.23%	32.51%	24.75%	23.39%
HPV	38.81%	38.94%	38.38%	30.47%	27.72%	24.99%	18.96%	17.86%
Combination 1	46.14%	47.90%	45.07%	35.46%	32.90%	30.07%	23.36%	22.00%
Combination 2	28.12%	29.18%	29.28%	24.03%	22.98%	21.16%	16.22%	15.11%

The adolescent immunization rates have shown a consistent decline from 2016 to 2023 across all vaccine categories, with a particularly sharp drop starting in 2019. The rates for meningococcal, Tdap, and HPV vaccines, as well as the combination vaccine measures, decreased significantly, with the most pronounced declines occurring between 2019 and 2021. This trend suggests that the COVID-19 pandemic likely disrupted routine adolescent immunization efforts, as access to preventive healthcare services was limited, and healthcare priorities shifted toward the pandemic response. The continued decline through 2023 indicates that immunization rates have not yet recovered to pre-pandemic levels, possibly due to lingering disruptions in healthcare access, vaccine hesitancy, or challenges in catching up on missed vaccinations.

However, it should be noted that since these rates were calculated solely from Medicaid administrative claims data, it is very well possible that other sources of vaccination for Medicaid beneficiaries in Illinois were not captured. In an attempted to understand this alarming downward trend, these numbers were checked against the Illinois School Vaccination Dashboard. Although Medicaid enrollees were not specifically identified by the dashboard, vaccination rates among all Illinois youth were found to be high overall (>90% coverage for meningococcal, >97% for TDAP) (Illinois Department of Public Health, 2025). Because of this

disparity, it is assumed that the decline reported above is due to a decline in vaccines covered by Medicaid, rather than an actual dramatic decline in vaccination rates. Discussion with HFS confirmed this suspicion, who noted that there had been a decrease in adolescent vaccination across the observation period, although the actual levels of vaccination were higher and the rate of decline less dramatic than reported here. This was confirmed by checking the vaccination rate for Illinois adolescents reported by CMS. Consequently, while this report and all external data indicate that this does not support the waiver hypothesis, these trends are less alarming than this report may imply.

Hypothesis 4.2: The demonstration will improve health outcomes among beneficiaries.

This hypothesis assessed health outcomes among beneficiaries using two metrics related to emergency department (ED) utilization. ED utilization measures can serve as indirect indicators of health outcomes, as high or frequent use may suggest deteriorating health conditions, delayed care, or gaps in chronic disease management. As such, these metrics help evaluate whether the demonstration contributed to improved health outcomes among beneficiaries. Both metrics incorporated data from 2018 onward.

Metric 44: Rate of ED visits (HEDIS Emergency Department Utilization; CMIT #234)

The rate of ED visits was calculated as the rate of observed discharges (i.e., discharges claimed under Medicaid coverage) from an emergency department per 1,000 members. Since beneficiaries can have multiple discharges, the observed rate is consistently over 1,000 discharges per 1,000 members.

Emergency Department Utilization by Age Group and Gender
Observed Discharges per 1,000 Nonoutlier Members
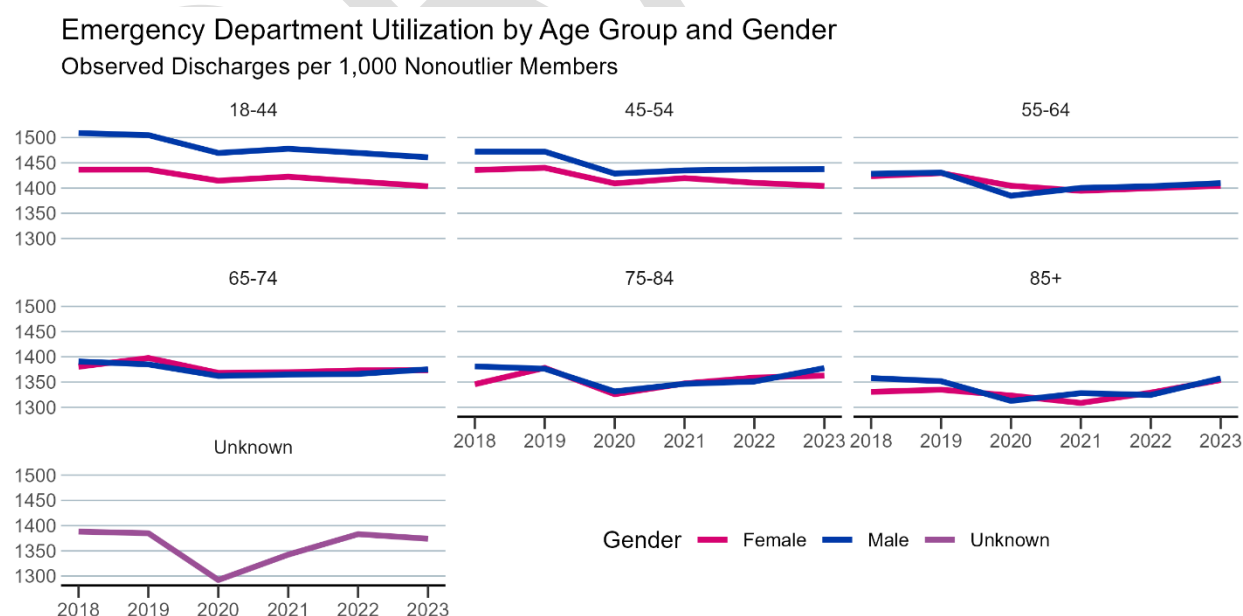
Year	2018	2019	2020	2021	2022	2023
Female						
18-44	1436.3	1436.6	1414.6	1422.5	1412.9	1403.5
45-54	1435.7	1440.1	1409.2	1419.7	1410.4	1404.1
55-64	1423.6	1429.6	1404.6	1394.6	1399.7	1404.4
65-74	1380.3	1397.7	1368.2	1369.4	1373.2	1373.4
75-84	1345.7	1378.1	1325.9	1347.2	1358.8	1362.7
85+	1330.6	1334.8	1323.3	1308.6	1329	1354.1
Male						
18-44	1508.9	1504.9	1469.5	1477.8	1469.6	1460.9
45-54	1472.3	1472.2	1428.7	1435	1436.9	1437.6
55-64	1428.3	1430.7	1384.7	1400.2	1403.5	1409.7
65-74	1390.8	1385	1362.2	1364.8	1366.1	1375.3
75-84	1381	1376.4	1331.4	1346.5	1351.1	1377.7
85+	1357.9	1351.7	1312.7	1328	1324.5	1357.3
Unknown	1388.1	1384.9	1292.2	1342.5	1383.1	1374

The rate of emergency department (ED) visits has remained relatively stable over time, with slight fluctuations observed across different age groups and genders. Between 2018 and 2019, ED utilization rates showed minimal change. However, in 2020, a modest decline was observed across nearly all groups, potentially due to pandemic-related healthcare disruptions and reduced non-urgent ED visits. From 2021 onward, the rates largely stabilized, with slight increases in some age groups, particularly among older adults. This suggests that while ED utilization initially declined during the pandemic, usage patterns have since returned to pre-pandemic levels.

Among beneficiaries under 55, males consistently had higher ED utilization than females, though both exhibited similar trends over time. In older age groups, gender differences in ED visit rates and trends were minimal.

With the limitations of the analytic strategy, this measure neither supports nor contradicts the waiver hypothesis of improving health outcomes.

Metric 45: Proportion of high-frequency ED utilizers.

Rather than observe the number of discharges per 1,000 members, Metric 45 instead identifies the rate of members who have three or more emergency department discharges per 1,000 members; these members are defined by HEDIS as 'outlier members', indicating that they are high-frequency ED utilizers.

The number of members with three or more inpatient or observation stay discharges per 1,000 beneficiaries
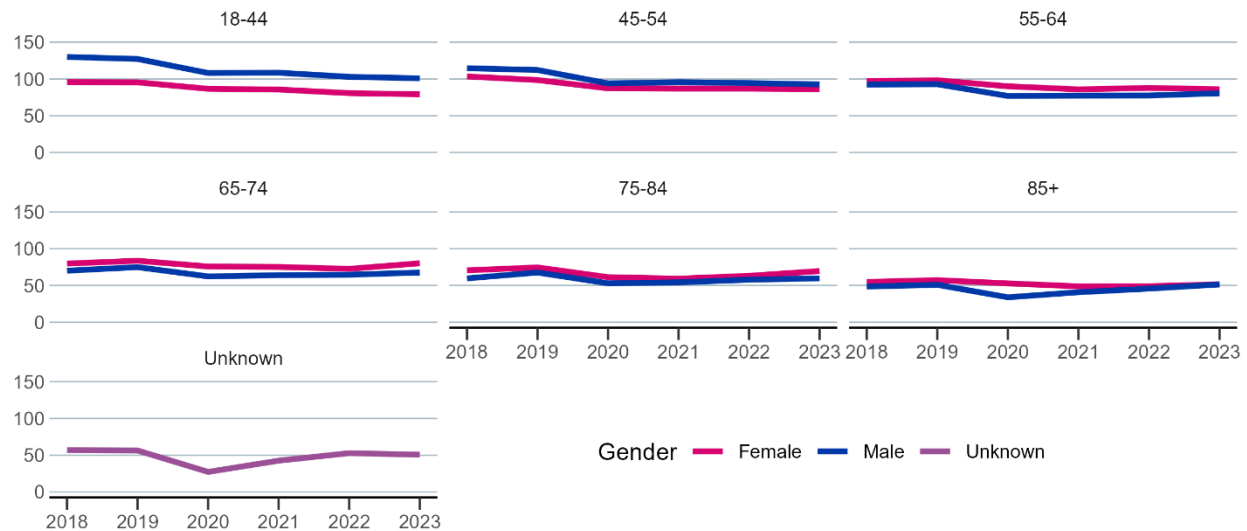
Year	2018	2019	2020	2021	2022	2023
Female						
18-44	95.7	95.4	86.6	85.6	80.7	79.1
45-54	103.4	98.5	87.2	86.8	86.8	86.1
55-64	97	98.2	90	85.8	87.8	86
65-74	79.8	83.6	75.8	75.2	72.6	80.2
75-84	70.6	74.5	61.3	59.3	63.1	69.6
85+	54.8	57.2	52.8	48.8	49	51.5
Male						
18-44	130	127.2	108.1	108.5	102.9	100.9
45-54	114.6	112.2	94	95.6	94.4	92.6
55-64	92.4	92.8	76.9	77.3	77.5	80.5
65-74	70.1	74.9	62.3	64	64.6	67.6
75-84	59.6	67.6	52.9	54.2	57.8	59.7
85+	48.5	50.9	33.9	40.8	45.7	51.4
Unknown	56.9	56.4	27.3	42.6	52.8	50.7

The proportion of high-frequency emergency department (ED) utilizers has shown a general decline across most age groups from 2018 to 2021, followed by a partial rebound in 2023. The most significant decreases occurred during the early years of the COVID-19 pandemic,

particularly in 2020 and 2021, suggesting that changes in healthcare-seeking behavior, pandemic-related restrictions, or reduced access to emergency care may have influenced utilization patterns. Both male and female populations experienced declines, with younger and middle-aged groups showing a more gradual reduction, while older adults exhibited more fluctuation. However, in 2023, some age groups, particularly older individuals, demonstrated an upward trend, indicating a potential return to pre-pandemic utilization patterns or increased healthcare needs among high-risk populations. With the limitations of the analytic strategy, this measure neither supports nor contradicts the waiver hypothesis of improving health outcomes.

Section VI: Conclusions

Executive Summary of Results		
Green indicates that the trend (directionality represented by arrows) supported the waiver hypothesis.	Yellow indicates that the trend neither supported nor did not support the waiver hypothesis.	Red indicates that the trend did not support the waiver hypothesis.
Goal	**Outcome**	**Result**
1. Promote continuity of coverage and care	**Metric 1:** The number of MCO enrollees who experienced an MCO coverage gap	↓ Both the number and proportion of enrollees experiencing coverage gaps have declined, although the impact of the PHE remains unclear.
	Metric 2: Length of MCO enrollment gaps	↑ The length of MCO enrollment gaps increased over the observation period.
	Metric 3: The number of enrollees who fail to recertify but subsequently re-enroll in the same health plan.	↑ The increase in beneficiaries re-enrolling in their previous healthcare plan after administrative gaps suggests a potentially positive impact of the waiver.
	Metric 4: The number of MCO enrollees transitioned to FFS within 12 months, divided by the total number of Medicaid enrollees	↓ A decline in transfers from MCOs to FFS suggests improved continuity of MCO coverage.
	Metric 5: Churns between managed care and FFS	↓ Churn declined across the observation period, although this trend was

			observed prior to the waiver implementation.
	Metric 6: The total number of months of continuous Medicaid coverage period covered by MCO (in one and two years[s])	↑	The one-year median coverage shows a generally positive trend, while the two-year trend displays considerable fluctuations with overall increases.
	Metric 7: Hospitals' assistance with full Medicaid applications	-	To be reported in Summative Evaluation
	Metric 8: Total number of Medicaid MCO enrollees divided by total number of Medicaid enrollees	↓	A slight decline in MCO enrollment was noted, however, it is difficult to distinguish between the effects of the waiver and the COVID-19 PHE
	Metric 9: Application processing backlog and turnaround time	-	To be reported in Summative Evaluation
	Metric 10: Reduced duplicative processes	-	To be reported in Summative Evaluation
	Metric 11: Time to become enrolled in Medicaid from the date of first visit to a hospital	-	To be reported in Summative Evaluation
	Metric 12: Emergency Transfer Communication	-	Not reported. See disclaimer on page 38.
	Metric 13: Medication Reconciliation Post-Discharge	-	
	Metric 14: Correlation with Existing Imaging Studies for All	-	

Patients Undergoing Bone Scintigraphy		
Metric 15: Medication Information Transfer	-	
Metric 16: Nursing Information Transfer	-	
Metric 17: Patients Information Transfer	-	
Metric 18: Physician Information Transfer	-	
Metric 19: Procedures and Test Results Transfer	-	
Metric 20: Vital Signs Information Transfer	-	
Metric 21: Primary care continuity: average number of primary care visits per year.	↓	Over the observation period, providers consistently served a fewer number of patients .
Metric 22: Bice-Boxerman Continuity of Care Index	↑	Although discontinuous care remained prevalent, the number of providers with a high continuity index increased across all measures following the waiver implementation. The decline in continuity observed during 2020-2021 aligns with the effects of PHE, suggesting some of these effects may be a reversion to normal rather than a
Metric 23: Herfindahl-Hirschman Index	↑	
Metric 24: Usual Provider of Care Index	↑	
Metric 25: Sequential Continuity Index	↑	

			discernable waiver effect.
2. Improve MCO quality oversight	**Metric 26:** The rate of MCO enrollees meeting the HEDIS 12-month continuous enrollment standard for each year	↓	See Metric 1
3. Avoid administrative complexities	**Metric 27:** Administrative costs to reenroll beneficiaries who submit late redetermination paperwork within the 90-day reconsideration period divided by the number of Medicaid enrollees	-	To be reported in Summative Evaluation.
	Metric 28: Staff time equivalents needed to reenroll beneficiaries who submit late redetermination paperwork within the 90-day reconsideration period divided by the number of Medicaid enrollees	-	
	Metric 29: Administrative costs to process applications	-	
	Metric 30: Staff time (including casework staff) equivalents needed to process applications	-	
	Metric 31: Medicaid application backlog: the number of Medicaid	↓	Backlogs declined just prior to the waiver implementation and remained low for two years afterward. A

	applications that have surpassed 45 days		resurgence appeared in late 2023, likely linked to the unwinding of PHE policies.
4. Provide quality care and improve health outcomes	**Metric 32:** Cervical Cancer Screening	↓	All three measures show a downward trend, suggesting a potential decline in preventive care utilization. Whether these changes are attributable to the waiver or the PHE remains unclear.
	Metric 33: Chlamydia Screening in Women Ages 21 to 24	↔	This metric fluctuates considerably throughout the observation period; with the most pronounced changes occurring around the time of PHE, suggesting that the PHE may have confounded the observed effect of the waiver.
	Metric 34: Breast Cancer Screening	↔	Similar to above, there is a neutral trend in breast cancer screening rates which drops during the PHE. While they have since begun to rise, they continue to fall short of pre-PHE levels.
	Metric 35: Prenatal and Postpartum Care	↔	Prenatal care timeliness shows a downward trend, which may suggest a negative waiver impact.

			In contrast, postpartum care demonstrates an upward trend, making the overall outcomes less conclusive.
	Metric 36: Controlling High Blood Pressure	↑	The marked upward trend in blood pressure control suggests potential positive impacts of the waiver on quality of care.
	Metric 37: Hemoglobin A1c Control for Patients with Diabetes	↓	The proportion of beneficiaries whose diabetes is poorly controlled or worse declines over the observation period.
	Metric 38: HIV Viral Load Suppression	↓	HIV viral load suppression declines across the observation period, although the quality of data is suspect due to extremely small numerator values.
	Metric 39: Initiation and Engagement of Alcohol and Other Drug Use or Dependence Treatment	↔	The trends of initiation and engagement are largely neutral with minor fluctuations, making it difficult to determine any clear waiver impact.
	Metric 40: Follow-up After Hospitalization for Mental Illness within 7 days or 30 days	↔	Trends remain steady throughout the observation period, both

			pre- and post-waiver implementation.
	Metric 41: Use of Pharmacotherapy for Opioid Use Disorder	↑	Pharmacotherapy rates fluctuated more prior to the demonstration period, but showed greater stability and improvement following the waiver, with post-waiver rates exceeding pre-waiver levels.
	Metric 42: Follow-Up After Emergency Department Visit for Alcohol and Other Drug Use or Dependence	↔	The 30-day follow-up shows an upward trend until the onset of the PHE in 2020, after which it plateaus. In contrast, the 7-day follow-up remains relatively stable with a slight increase, leading to a neutral conclusion despite initial gains.
	Metric 43: Immunizations for Adolescents	↓	Alarming decline in vaccination rates across the entire observation period. Potential data inaccuracies are suspected and will be further investigated.
	Metric 44: Rate of ED visits	↔	Both the overall ED utilization rate and the high frequency rate have flat trends across the entire observation period.
	Metric 45: Proportion of high-frequency ED utilizers	↔	

Goal 1: Promote continuity of coverage and care

Of the 25 metrics monitoring Goal 1, 9 (38%) are progressing as expected, 3 (13%) are not progressing as expected, and 13 (54%) are not included in this report. Goal 1 contains a great deal of the metrics not included in this summative report: metrics 7, 9, 10, 11 are part of the final reports qualitative data collection, while metrics 12 through 20 could not be collected due to data limitations. The absence of reporting is explained in the methodology (for the qualitative metrics) and methodological limitations (for metrics 12-20) section of this report. It should be noted that the absence of these metrics does not indicate negative directionality, of the 12 metrics which were able to be included in this summative report, 75% (9) support the waiver hypothesis, while 25% (3) do not. Descriptive analyses suggest that continuity of MCO coverage has generally improved in the post-waiver period compared to the pre-waiver period, except for an increase in the average length of MCO enrollment gaps over time. Metrics related to continuity of care also indicate overall improvement following the waiver. However, it is important to note that many of the observed trends appear to have been influenced by the COVID-19 pandemic and the subsequent PHE provisions. Until additional data are collected and more rigorous analytic methods are applied, the effects of the demonstration on continuity of coverage and care cannot be conclusively determined.

Goal 2: Improve MCO quality oversight

Over time, an increasing number of enrollees met the HEDIS 12-month continuous enrollment standard each year, which likely enabled more individuals to be included in MCO quality oversight measures. While this trend may suggest a positive impact of the waiver on quality oversight, conclusions should be deferred until further data are collected and additional analyses are conducted.

Goal 3: Avoid administrative complexities

Of the five metrics monitoring Goal 3, four rely on qualitative interview data and will be addressed in the summative evaluation report. The remaining metric—Medicaid application backlog—was reported and showed a decline over time, suggesting progress toward administrative simplification. However, this improvement may be attributable to the continuous enrollment provisions under the PHE, rather than the waiver itself. Therefore, additional data collection and analysis are needed to assess the waiver's specific impact. As part of the upcoming summative evaluation, stakeholder interviews will further explore the waiver's influence on administrative complexities and help contextualize the quantitative findings.

Goal 4: Provide quality care and improve health outcomes

Of the 14 metrics monitoring Goal 4, 3 (21%) are progressing as expected, 8 (57%) have no conclusive directionality, and 3 (21%) are not progressing as hypothesized. Findings related to quality of care are mixed. Some metrics, such as controlling high blood pressure, show improvement over time, while others, including cervical cancer screening, indicate declines. Some measures show no notable change between the pre- and post-waiver periods, such as breast cancer screening. Similarly, no clear trends were observed in overall health outcomes

during the evaluation period. Results indicate a relatively flat pattern, and the impact of the waiver remains inconclusive. Due to the limited data timeframe and the current evaluation design, it is difficult to draw conclusions about the waiver's impact on quality of care and health outcomes. As with other goals, further data collection and more rigorous analyses—such as time series methods and the use of comparison groups—will be necessary to assess the waiver's effect more accurately.

Section VII: Interpretations, Policy Implications, and Interactions with Other State Initiatives

Continuity of Coverage

Evaluating the impact of the 90-day MCO re-enrollment extension has been challenging due to the federal continuous enrollment provision that was in place throughout most of the evaluation period. The PHE policy paused Medicaid redeterminations and disenrollments, which effectively suppressed typical patterns of churn and made it difficult to isolate the specific effect of the waiver on continuity of coverage.

Nonetheless, some evaluation findings revealed unexpected gaps in both MCO and overall Medicaid coverage, even during the PHE. These findings are difficult to interpret, given that eligibility should have remained stable. A likely explanation involves limitations in the Enterprise Data Warehouse (EDW, Illinois' Medicaid claims data warehouse), including incomplete tracking of beneficiaries' enrollment history and lack of detailed information on disenrollment reasons. Additionally, some observed MCO coverage gaps may reflect temporary placement in fee-for-service due to administrative delays, such as lags in initial MCO assignment or disruptions in the plan assignment process. These are not necessarily true losses of coverage but may appear as such in the data.

In 2023, coverage gaps began to increase, suggesting a return to pre-pandemic patterns as the continuous enrollment provision ended and the state entered the Medicaid unwinding phase. During this time, the 90-day re-enrollment extension under the waiver was expected to play a more critical role in preventing disruptions in MCO coverage by allowing individuals who missed their redetermination deadline to re-enroll in the same health plan within 90 days. However, when evaluating the impact of the waiver, it will be important to distinguish its effects from those of broader unwinding measures adopted by the state under Section 1902(e)(14)(A)—such as strategies to increase *ex parte* renewal rates aimed at streamlining eligibility redeterminations. Distinguishing between these policies and the waiver will be possible with the inclusion of comparison state data in the planned analysis for the summative report and the full impact of the waiver will become clearer as more post-PHE data becomes available.

Administrative Complexities

Trends in application backlogs serve as a useful proxy for assessing administrative burden within the Medicaid eligibility and enrollment process. Backlogs declined through 2021 and remained low during the PHE but rose sharply in 2023–2024 following the resumption of redeterminations.

Waiving HPE may have helped prevent further increases in the backlog during the unwinding phase. By avoiding the additional administrative workload of processing both HPE and full Medicaid applications for the same individuals, the state may have minimized strain on

eligibility systems. However, it is difficult to rigorously isolate the impact of waiving HPE due to limitations in the current evaluation design and the available data timeframe. Stakeholder interviews, which will be included in the summative evaluation report, will explore counterfactual scenarios (e.g., how the process might have differed if HPE had been implemented) and provide additional insight into the waiver's role in shaping administrative complexity.

Beginning in July 2023, the trend in application backlog during the unwinding phase should also be understood in the context of the state's broader strategies under Section 1902(e)(14)(A). These included enhancements to *ex parte* renewal processes—such as leveraging SNAP income data and accommodating $0 income households—as well as the implementation of a staggered 12-month redetermination schedule. These measures were designed to reduce paperwork requirements and manage the surge in renewal volume more efficiently and therefore may have influenced administrative burdens during this period.

It is also important to note that application backlog levels had already decreased prior to the pandemic, notably in 2019. Illinois launched the Integrated Eligibility System (IES) in 2013 and implemented major system enhancements between 2018 to 2020 to expand functionality and address prior system issues (Illinois Department of Human Services, n.d.). These pre-waiver streamlining efforts may have contributed to the reduction in application backlog observed during the pre-pandemic period.

Quality of Care and Health Outcomes

Findings related to quality of care and health outcomes reveal mixed trends, with some metrics demonstrating improvement while others remained unchanged or declined. Several policy changes outside the scope of the current 1115 demonstration likely interacted with the waiver and influenced these results.

Maternal Health

Metric 35 (prenatal and postpartum care) showed divergent trends, with timely prenatal care declining substantially after 2021, while postpartum care utilization steadily increased and nearly returned to pre-pandemic levels by 2023. This divergence may be partially explained by two policy changes. First, Illinois implemented a State Plan Amendment (SPA) extending postpartum Medicaid coverage to 12 months, effective April 1, 2022. This SPA, made possible through a provision in the American Rescue Plan Act (ARPA), guarantees continuous coverage for Medicaid-eligible pregnant individuals for one year following delivery, regardless of income changes or administrative status. By reducing churn and ensuring uninterrupted access to services, the SPA likely supported the stability and modest improvement observed in postpartum care engagement. Additionally, HB4343, Medicaid Omnibus legislation enacted in 2022, expanded midwifery coverage and increased reimbursement rates for maternal care, which may have improved provider participation and access to services.

Chronic Disease Management and Preventive Care

Metrics related to chronic disease—Metric 36 (Controlling High Blood Pressure) and Metric 37 (Diabetes A1C Control)—showed consistent improvement during the observation period, including post-waiver implementation. These trends likely reflect care coordination efforts and quality oversight within managed care organizations. However, improvement in these areas also coincided with Illinois' expansion of Medicaid coverage for the National Diabetes Prevention Program (DPP) in August 2021. Though not part of the current demonstration, this policy represents a key example of how state-level decisions outside of the 1115 framework can complement demonstration goals. The DPP's focus on lifestyle change and prevention may have contributed to improved A1C control and secondary benefits like better blood pressure management.

Behavioral Health and Substance Use

Substance use disorder (SUD)-related outcomes —Metrics 39, 41, and 42—were the most likely to interact with Illinois' ongoing Behavioral Health Transformation 1115 Waiver, which began in July 2018 and is scheduled to run through June 2029. This 1115 SUD demonstration aims to improve the ability of Illinois Medicaid to diagnose and treat substance use disorder through a series of pilot programs designed to bridge gaps between state authority and Illinois Medicaid. Therefore, SUD-related outcomes observed in this interim evaluation from 2018 should be interpreted within the context of this broader waiver initiative. The pilot program implemented under the demonstration has overall been successful, as noted by HFS's quarterly reports and the interim report of the evaluation submitted to CMS in December 2023.

Cancer Screenings and Adolescent Immunizations

Preventive care metrics, such as cancer screenings (Metrics 32 and 34) and adolescent immunization rates (Metric 43), showed declines or incomplete recovery following the COVID-19 pandemic. In the case of adolescent immunizations, data derived from administrative claims data seemed to indicate extremely low vaccination rates – 23.39% coverage for the TDAP coverage in 2023, for example. However, follow-up investigations of other public health data sources revealed that the true TDAP coverage for all adolescents (inclusive of Medicaid) in Illinois was 91.3% in 2023 (Illinois Department of Public Health, 2025). This conflicting data, reflected in other years and vaccination combinations, suggests that the administrative data may significantly underreport vaccination rates, likely due to vaccines being administered through school-based programs or public health clinics that do not generate Medicaid claims.

Emergency Department Utilization and Health Outcomes

Metrics 44 and 45, which assess ED utilization and the prevalence of high-frequency ED users, remained relatively stable over the observation period. While these metrics are commonly used as indirect indicators of health status, they offer only a limited perspective on the demonstration's broader aims. In particular, the current waiver does not include components that address social determinants of health, such as housing instability or unmet behavioral health needs that often drive frequent ED use. These factors are expected to be addressed more directly under Illinois' subsequent 2024 Healthcare Transformation 1115 Waiver. Additionally, pandemic-era policies, including the PHE continuous coverage provision, likely influenced ED

utilization patterns in ways that are difficult to disentangle using claims-based data alone. The reliance on state administrative claims in this evaluation limited the ability to assess more direct health outcomes such as clinical improvement, symptom control, or functional status. Also, given that improving health outcomes is a long-term goal of the demonstration, this measure should be considered from a long-range perspective. Stabilization in ED use may represent only an early or incomplete signal of the demonstration's impact on population health. Future evaluations would benefit from incorporating more comprehensive data sources—such as electronic health records, managed care encounter data, or patient-reported outcomes—to better capture clinical changes over time.

Caution in Interpreting Quality of Care Measures

Several quality of care metrics warrant caution due to concerns about data reliability. Most of these metrics are based on standardized HEDIS measures, which allow for comparison with publicly reported data. However, we identified significant discrepancies between results in this evaluation and those reported by the state to the CMS in its Medicaid State Profile (Medicaid.gov, 2024), as well as those published in the External Quality Review (EQR) Annual Report (Health Services Advisory Group [HSAG], 2023). The affected metrics include Metric 32 (cervical cancer screening), Metric 34 (breast cancer screening), Metric 36 (controlling high blood pressure), and Metric 37 (hemoglobin A1c control for patients with diabetes). For example, using data from the EDW, this evaluation reported controlling high blood pressure rates of 7.09%, 9.34%, and 11.63% for 2021, 2022, and 2023, respectively. In contrast, the EQR report documented statewide rates of 50.03% in 2021 and 57.96% in 2022, and the CMS Medicaid State Profile reported a rate of 73.8% in 2023. Although these discrepancies may be attributed to reasonable differences in data structure, population coverage, or the operationalization of HEDIS specifications, they raise caution specifically around the reliability of certain metrics in this evaluation. Therefore, these selected results may not be interpreted as precise reflections of care delivery or outcomes in the state. Further investigation into this issue should be followed for the final evaluation.

Section VIII: Lessons Learned and Recommendations

From an analytical standpoint, the interim evaluation demonstrated the downside of monitoring waiver progress solely through administrative claims data. Since all metrics were derived only from Medicaid claims, there were some blind spots in the data. An example of this can be found in Metric 43: Immunizations for Adolescents. Only measuring the vaccinations which were billed under Medicaid created the false impression that vaccination rates for Illinois youth were distressingly low, requiring external verification from both HFS staff and state public health data to ensure that vaccination rates were truly at a higher level. Consequently, while the limitations of administrative claims data are acknowledged, the evaluation team has learned to work within the limitations of this data, and to collect a reasonable amount of data (e.g., qualitative interviews) when these limitations impede the evaluation.

Therefore, it is recommended that the state improve data integration; the EDW combined with other state data sources could become an even more potent means of monitoring Medicaid policy changes within Illinois. A wider scope of data would allow future evaluations to consider additional dimensions of health that are not included in the EDW, such as EMR data, housing data, or employment data. The state of Illinois already has a program in place designed to unite many disparate sources of data, including Medicaid claims data, housing and employment data, and data related to various policy initiatives. Improving data integration, as well as access to this data by various evaluators and subject matter experts, will improve the ability of the state to design policy interventions and ensure that these interventions are as efficacious as possible.

As coverage gaps are beginning to return to pre-pandemic patterns and the state transitions into the post-PHE environment, it will be important to closely monitor redeterminations and manage the unwinding process effectively. Because the 90-day MCO re-enrollment extension only began implementation in late 2023, the state should also pay close attention to whether the policy is operating as intended—specifically, whether eligible individuals are being reconnected with their previous health plans in a timely manner. Doing so will be essential to reducing avoidable gaps in MCO enrollment, supporting continuity of care, and achieving the demonstration's broader goals related to administrative simplification and improved health outcomes.

Overall, many of the metrics evaluated in this report have a common difficulty in distinguishing the effects of the 1115 waiver from the various effects of the COVID-19 PHE, from the pandemic's immediate impact on elective and preventative care visits to primary care providers, to Illinois Medicaid's various response measures (some with guidance from CMS) ending disenrollments for the duration of the PHE, and finally the various unwinding measures as a result of Illinois' approved Section 1902(e)(14) Waiver. Beyond these immediate identifiable policy interactions with the 1115 Waiver, many beneficiaries and healthcare providers adjusted to a post-PHE norm, which led to an overall change in how patients interact with healthcare providers. In short, the vast and still-unexplored consequences of the COVID-19 pandemic are being realized alongside the implementation of the Continuity of Care and Administration Waiver; with the waiver implementation beginning during the PHE and complicating the

evaluation further. As discussed in both the conclusions and the results, many metrics seem to have a baseline trend interrupted by the PHE, meaning that some of the effects of the waiver may have been lost in return to the pre-pandemic trends.

However, given the initial results of many of the enrollment metrics, combined with an understanding that many metrics were less directly impacted by the 1115 waiver (e.g., many of the health outcomes listed under goal 4) and are currently faced with a variety of interacting policy and societal factors, the initial implementation of the waiver has been a success. Full verification of the hypotheses will only be possible with comparison state data and a more thorough analysis, which will be included in the summative report. The state of Illinois set two objectives for the 1115 Continuity of Care Waiver: to provide quality healthcare and improve health outcomes, and to address administrative barriers to care access. The most immediate impact of the waiver has been in reducing administrative barriers, as reflected by the preponderance of positive metrics under goal 1. Health outcomes have seen some initial improvements, although more time will be needed to allow for the waiver's effects to fully take hold. Given these promising results, the independent evaluator recommends a continuation of the waiver policies as more time is needed to allow these policies to impact Medicaid beneficiaries.

Appendix A: Approved Evaluation Design Plan

Illinois 1115 Continuity of Care & Administrative Simplification Evaluation Plan Revision

Resubmission to the Centers for Medicare & Medicaid Services July 15, 2024

A. General Background Information

Program Description

The objectives of the <u>Illinois Continuity of Care and Administrative Simplification</u> section 1115(a) demonstration (Project Number 11-W-00341/5) are (1) to provide quality health care and improve health outcomes for Medicaid beneficiaries through care coordination and continuity of care initiatives and (2) to address administrative barriers to care access. Approval for the "Illinois Continuity of Care and Administrative Simplification" demonstration is effective January 19, 2021, through December 31, 2025. On April 12, 2021, the Centers for Medicare & Medicaid Services (CMS) approved an amendment for the state to provide state plan benefits to postpartum women. However, the current evaluation plan does not include this initiative because the state has transitioned its implementation from the 1115 waiver authority to the State Plan Amendment authority.

The state has hypothesized that it can meet the objectives by (1) reinstating eligible Medicaid customers into their prior Medicaid managed care organizations (MCOs) when they submit late redetermination paperwork within 90 days of the date of termination and (2) waiving hospital presumptive eligibility (HPE). Under this demonstration, the state will collect data on, test, and evaluate this hypothesis. The CMS has determined that this project is likely to promote Medicaid's objectives. The two elements are described in greater detail below.

Implementing managed care reinstatements when a Medicaid beneficiary submits late redetermination paperwork within 90 days of the date of termination (42 CFR 438.56(g)): This demonstration will assist the State of Illinois in automatically reenrolling beneficiaries into their prior MCO when they submit late redetermination paperwork within 90 days of their Medicaid termination date and are determined to be eligible for medical coverage. Previously, beneficiaries could reenroll into their prior MCO within 60 days of the redetermination period. However, when they submitted the paperwork after 60 days, but still within 90 days of the redetermination period, they were enrolled into Medicaid fee-for-services (FFS) and had to restart the MCO enrollment process. By extending the automatic re-enrollment period to 90 days, the demonstration is expected to promote continuity of Medicaid coverage and care, minimize churn between Medicaid FFS and managed care, and simplify administrative procedures.

Waiving hospital presumptive eligibility (HPE) (1902(a)(47)(B)): As detailed in 42 CFR 435.1110, states are required to implement an HPE program, which permits hospitals to make presumptive eligibility determinations and provide temporary Medicaid coverage to individuals likely to qualify for Medicaid. To continue Medicaid coverage, qualified individuals need to

submit a full Medicaid application around the time their temporary coverage is terminated. However, the demonstration enables Illinois to forego implementing an HPE program in an effort to (1) minimize unnecessary transitions between FFS and managed care and (2) promote full Medicaid enrollment instead of temporary FFS coverage.

Rationale for This Waiver

Importance of continuity of Medicaid: Improving continuity of Medicaid coverage is a cost-effective way to reduce transition in and out of health care coverage, minimize beneficiary burden, increase the security of health insurance coverage for Medicaid recipients, improve the measurement of health care quality, and enhance people's overall health (Gordon et al., 2019). Additionally, continuous Medicaid enrollment reduces the program's administrative costs (Brooks & Gardner, 2021; Wagner & Solomon, 2021). By contrast, when people lose their Medicaid coverage and are required to reenroll, their health care costs are often higher than when they had continuous coverage. These coverage gaps can also result in delayed access to appropriate health care services (Wagner & Solomon, 2021).

Continuity of care and coverage: Transitioning between FFS and Medicaid managed care due to late submission of redetermination paperwork can disrupt communication with care coordinators, confuse beneficiaries and providers about their existing authorizations, disrupt transportation arrangements, and create gaps in claims history for MCOs monitoring their members' care. This churning also restricts the state's ability to assess health outcomes for Medicaid beneficiaries in managed care. Waiving 42 CFR 435.170(b) to allow beneficiaries' reinstatement into their prior Medicaid MCO within 90 days of receipt of late redetermination paperwork will improve access to high-quality, person-centered services that promote positive health outcomes for individuals and efficiently enhance the longevity of Medicaid benefits.

With the hospital presumptive eligibility (HPE) program, the state is concerned that both the hospital and the beneficiary might fail to submit the follow-up application after an initial hospital stay has been covered under HPE. Waiving HPE will address this concern by encouraging people to apply for full Medicaid benefits rather than relying on temporary coverage. Additionally, payments for services during an HPE segment occur through Medicaid FFS. A large part of Illinois's efforts to improve continuity of care focused on enrolling clients in an MCO that is responsible for working with providers and coordinating the client's health care. Therefore, by waiving HPE, the state expects to minimize churn between FFS and managed care, as well as promote continuity of care.

Administrative simplification: This demonstration will eliminate the additional administrative work of reenrolling beneficiaries into FFS and restart the managed care enrollment process due to the late submission of redetermination paperwork. It will also enable Illinois to focus its administrative resources on processing full Medicaid applications instead of matching HPE and full Medicaid applications.

Population

The 90-day managed care reinstatement initiative, which involves automatically reenrolling a beneficiary in their prior MCO when they regain eligibility within 90 days of the redetermination period, has been implemented for all people who are eligible for Medicaid in the State of Illinois.

The HPE initiative has also been waived for all people who are eligible for Medicaid in the State of Illinois. The state will continue to operate Medicaid presumptive eligibility for children and pregnant women under the state Medicaid plan.

Illinois 1115 Continuity of Care and Administrative Simplification Goals

Goal 1: Promote continuity of coverage and care. The hypothesis suggests that auto-enrolling a beneficiary in their previous plan within 90 days after the redetermination period will increase months of MCO coverage and reduce MCO coverage disruption. It also suggests that waiving HPE will prevent churning between managed care and FFS and will promote full Medicaid applications and subsequent enrollment. Finally, the hypothesis suggests that auto-enrolling a beneficiary in their previous plan within 90 days after the redetermination period and waiving HPE will increase continuity of care.

Goal 2: Improve MCO quality oversight. The hypothesis suggests that improved continuity of coverage will enable complete MCO quality measurement through the Healthcare Effectiveness Data and Information Set (HEDIS) reporting.

Goal 3: Avoid administrative complexities. The hypothesis suggests that auto-enrolling a beneficiary in their previous plan within 90 days after the redetermination period and waiving HPE will reduce the cost, time, and overall administrative burden of the state's Medicaid program.

Goal 4: Provide quality care and improve health outcomes. The hypothesis suggests that auto-enrolling a beneficiary in their previous plan within 90 days of the redetermination period will result in quality care and improved health outcomes.

B. Evaluation Questions and Hypotheses

Driver Diagram

Using the hypotheses and research questions, we created a driver diagram that depicts relationships between the demonstration's aims, the primary drivers that contribute directly to achieving the aims, and secondary drivers, which are components or processes of the primary drivers. Figure 1 includes Goal 1 (*promoting continuity of coverage and care*), Goal 2 (*improving MCO quality oversight*), and Goal 4 (*providing quality care and improving health outcomes*), which is an expected long-term outcome of achieving Goal 1. Figure 2 includes Goal 3 (*avoiding administrative complexities*), led by different drivers from Goal 1 and the other goals.

As depicted in Figure 1, automatically reenrolling beneficiaries into their prior MCO when they submit late redetermination paperwork within 90 days (instead of 60 days, as previously required) will minimize churn between managed care and FFS. This will promote continuity of MCO coverage, a primary driver of Goal 1 (*promoting continuity of coverage and care*). Meanwhile, waiving the requirement to operate an HPE program will promote hospitals' ability to assist with full Medicaid applications. This will increase MCO enrollment and its timeliness and finally lead to coordinated care, another primary driver of Goal 1. Achieving Goal 1 is expected to *improve MCO oversight quality* (Goal 2) by promoting more complete MCO quality measurement through HEDIS reporting. These two goals are important steps toward achieving Goal 4, *providing quality care and improving health outcomes*.
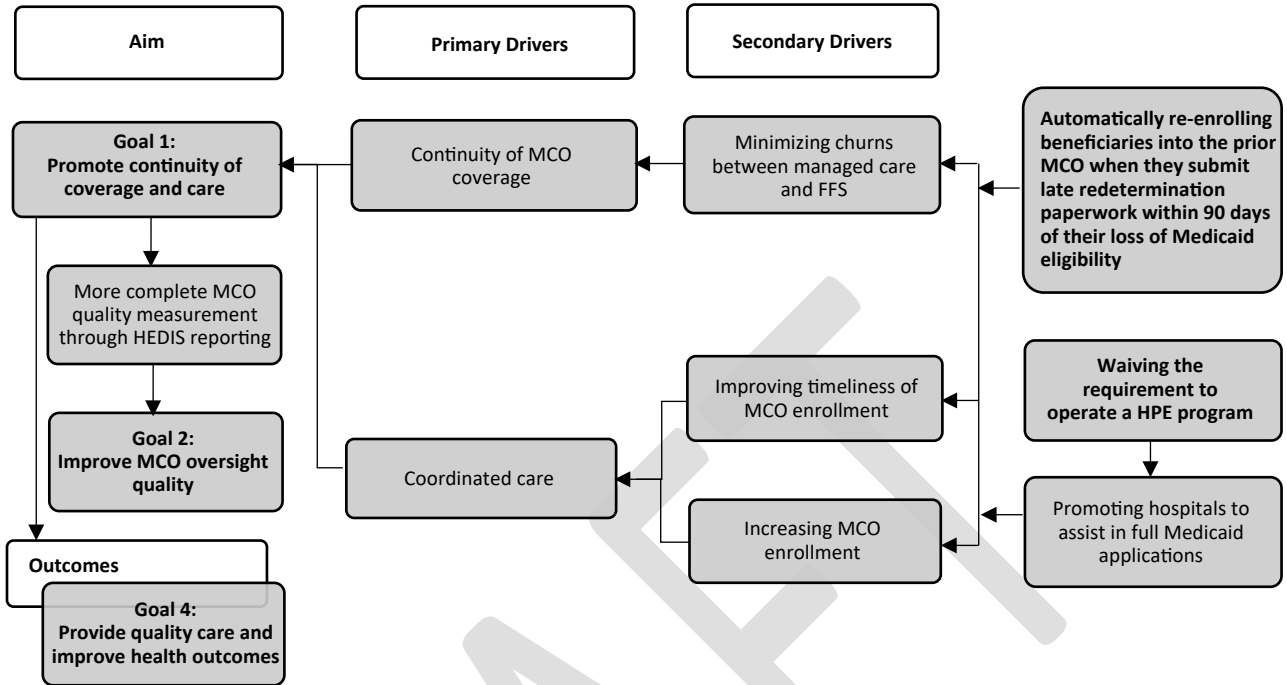
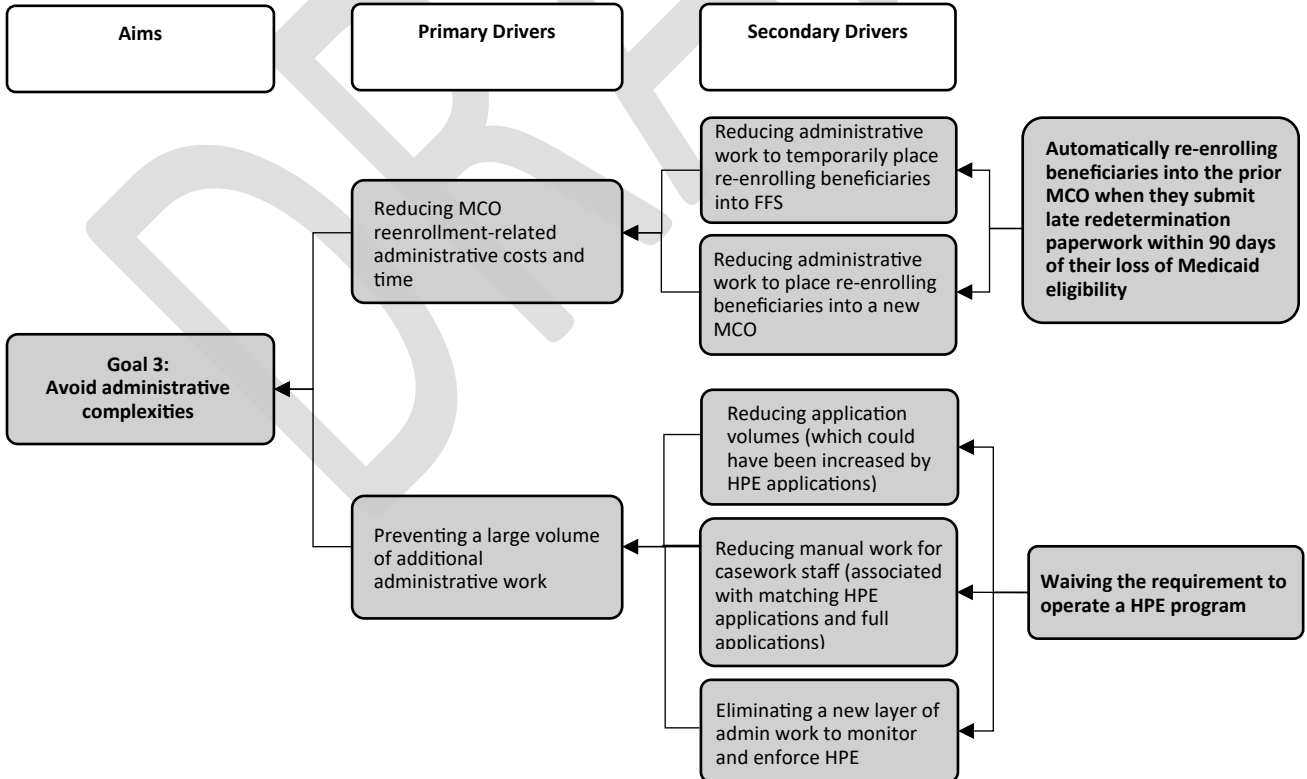*Figure 1. Driver Diagram for Goals 1, 2, and 4*

Aim	Primary Drivers	Secondary Drivers

Goal 1: Promote continuity of coverage and care

Continuity of MCO coverage

Minimizing churns between managed care and FFS

Automatically re-enrolling beneficiaries into the prior MCO when they submit late redetermination paperwork within 90 days of their loss of Medicaid eligibility

More complete MCO quality measurement through HEDIS reporting

Improving timeliness of MCO enrollment

Waiving the requirement to operate a HPE program

Goal 2: Improve MCO oversight quality

Coordinated care

Increasing MCO enrollment

Promoting hospitals to assist in full Medicaid applications

Outcomes

Goal 4: Provide quality care and improve health outcomes

Figure 2. Driver Diagram for Goal 3

Aims	Primary Drivers	Secondary Drivers

Reducing MCO reenrollment-related administrative costs and time

Reducing administrative work to temporarily place re-enrolling beneficiaries into FFS

Automatically re-enrolling beneficiaries into the prior MCO when they submit late redetermination paperwork within 90 days of their loss of Medicaid eligibility

Reducing administrative work to place re-enrolling beneficiaries into a new MCO

Goal 3: Avoid administrative complexities

Reducing application volumes (which could have been increased by HPE applications)

Preventing a large volume of additional administrative work

Reducing manual work for casework staff (associated with matching HPE applications and full applications)

Waiving the requirement to operate a HPE program

Eliminating a new layer of admin work to monitor and enforce HPE

Figure 2 illustrates a driver diagram for reducing administrative complexities in the Illinois Medicaid Plan. Automatically reenrolling beneficiaries into their prior MCO when they submit redetermination paperwork within 90 days after the end of their redetermination period will reduce the administrative burden of temporarily reenrolling beneficiaries into FFS while they go through the MCO enrollment process again. This reduced administrative work will reduce enrollment processing costs and time, which is a primary driver of Goal 3, *avoiding administrative complexities*. Likewise, waiving the requirement of HPE program implementation and its associated HPE applications will (1) decrease the overall number of applications, (2) reduce the workload of staff tasked with matching HPE with full Medicaid applications, and (3) eliminate new and additional administrative work related to oversight and compliance. These secondary drivers related to Goal 3 will eliminate multiple additional administrative complexities and labor.

Illinois 1115 Continuity of Care Waiver Goals, Evaluation Questions, and Hypotheses

The following section describes the translation of the state's demonstration goals into quantifiable targets to measure performance. Specifically, it details the state's hypotheses regarding the demonstration's outcomes as well as the alignment of the evaluation questions, hypotheses, and goals of the demonstration. Finally, this section describes the ways in which the research questions and hypotheses are related to Titles XIX and/or XXI.

Table 1. The Goal, Hypotheses, and Research Questions

Goals	Hypotheses	Research Questions
1. Promote continuity of coverage and care	1.1. The demonstration will reduce the rates of disrupted coverage (gaps in coverage).	1.1.1. Are enrollees less likely to experience a disruption in service by allowing a 90-day reinstatement period into the prior MCO? 1.1.2 Does waiving HPE minimize the churns of Medicaid fee-for-service (FFS) and Medicaid managed care?
	1.2. The demonstration will increase the MCO coverage period.	1.2 Does allowing a 90-day reinstatement period into the prior MCO increase months of MCO coverage?
	1.3. The demonstration will promote full Medicaid applications.	1.3. Does waiving HPE continue to promote hospitals' assistance with full Medicaid benefit applications?

	1.4 The demonstration will increase enrollment in MCO.	1.4. Does the demonstration increase the rate of enrollment in MCO?
	1.5 The demonstration will affect the timing of enrollment in MCO.	1.5 Does waiving HPE encourage timely enrollment in MCO?
	1.6. The demonstration will improve care coordination.	1.6. Does the demonstration improve care coordination?
	1.7. The demonstration will increase continuity of care.	1.7. Does continuity of MCO coverage increase continuity of care?
2. Improve MCO quality oversight	2. The demonstration will improve MCO quality oversight.	2. Does improved continuity of MCO coverage allow for more complete MCO quality measurement through HEDIS reporting?
3. Avoid administrative complexities	3. The demonstration will maintain or reduce administrative costs and time.	3.1. Does allowing beneficiaries to be reenrolled automatically into their previous MCO within 90 days of the reconsideration period reduce administrative costs and time? 3.2. Does waiving HPE prevent increases in application processing costs and time? 3.3. Does waiving HPE prevent increases in Medicaid application backlog?
4. Provide quality care and improve health outcomes	4.1 The demonstration will improve the quality of care. 4.2 The demonstration will improve health outcomes among beneficiaries.	4.1 Does the demonstration improve the quality of care? 4.2 Does the demonstration improve health outcomes among beneficiaries?

C. Methodology

1) Overall Evaluation Design

Following CMS recommendations for waiver demonstrations (Contreary et al., 2018), we will use a rigorous, quasi-experimental pre-post design to compare outcomes before and directly after waiver implementation. Whenever feasible, we will employ the comparative interrupted time series (CITS) as our primary analytic approach, as it is expected to produce robust causal inference. CITS evaluates program/policy impacts by revealing whether the demonstration state deviates from its baseline trend by a greater amount than the comparison state. Because the waiver is open to all Medicaid recipients, a comparison group will be selected from a similar state that does not have the same waiver.

Where CITS is not possible due to the unavailability of a comparison group, we will employ the interrupted time series (ITS) approach to take advantage of available data from multiple time points before and after the intervention. Alternatively, when a comparison group is available but has limited time points, we will use a difference-in-differences (DID) model. In the rare event of extreme scarcity of data or the absence of a suitable control series, a pretest-posttest design will be used to assess the impact of the intervention, and we will note the limitations of this approach. This approach may also be employed when power calculations suggest that the sample size might be insufficient to detect a statistically significant effect. A more detailed rationale for the proposed analytic approach and methodology is provided later in this section.

In interview-based research questions, such as stakeholder interviews, the research team will employ a one-group post-test design. Data will be gathered solely from the demonstration state after the implementation of the waiver. Collected qualitative data will be analyzed using thematic analysis to address these research questions. While this design is straightforward and easier to implement than CITS or DID, the lack of a baseline or pre-waiver measurement will make it impossible to establish a causal relationship or to attribute outcomes to the intervention.

One of the waiver elements, waiving HPE, requires specific evaluation approaches since HPE has never been implemented in Illinois, and thus the waiver does not involve any implementation activities. Stakeholder interview data will be primarily used for evaluation, gauging Medicaid stakeholders' perspectives on the waiver. Supplementing the qualitative findings, relevant pre- and post-waiver quantitative data will be used to identify trends in outcomes when feasible, although significant changes are not anticipated. To analyze these trends, we will employ interrupted time series and pretest-posttest designs, along with descriptive analysis. Detailed measures and methodologies are provided later in this section.

2) Target and Comparison Population

The target population will be limited to Illinois Medicaid-eligible individuals with incomes at or below 138% of the FPL. Specifically, individuals enrolled in Illinois Medicaid from January 19, 2021, to December 31, 2025, will be targeted to test the hypotheses and measure the demonstration's impact. Service providers or other key stakeholders will be interviewed to identify and measure any changes in administrative costs and time followed by the demonstration.

Subgroup Analyses

Where possible and appropriate, the research team may conduct analyses on subgroups within the study population to gauge the impact of the waiver on diverse subgroups across Illinois. Because the evaluation encompasses several policy changes, each potentially affecting various subgroups in different ways, the research team will determine whether specific metrics should be used for subgroup assessments.

As suggested in the subgroup analysis literature (Farrokhyar et al., 2022; Sun et al., 2011), the research team will specify relevant groups within the Illinois Medicaid population and hypothesize regarding the direction of the effect *a priori*. A key aspect of the waiver is that it permits individuals who submit required redetermination paperwork late, but still within a 90-day timeframe, to be automatically reenrolled into their previous MCOs. This provision is expected to benefit individuals who often encounter administrative barriers and risk procedural termination of coverage. In this regard, our evaluation will pay special attention to how the waiver impacts specific racial/ethnic groups as well as the interaction effects of racial/ethnic groups on the main effects of the demonstration. To examine the subgroup effect (i.e., interaction effect), we will use applicable statistical tests and adjusted p-values for multiple testing and sample sizes (Farrokhyar et al., 2022; Sun et al., 2011).

Often, individuals returning paperwork late also have unstable incomes and are subjected to frequent data checks and verifications of ongoing eligibility. Research indicates that people of color experience income instability at higher rates than their White counterparts, and that they consequently face more administrative barriers when accessing public benefits (Carr & Hardy, 2022; Sugar et al., 2021). Additionally, studies show that Medicaid beneficiaries with limited English proficiency encounter significant barriers during the redetermination process, particularly ethnic minorities such as Hispanics and Asians (Arbogast et al., 2022; Mirza et al., 2022). Given the waiver's focus on addressing administrative barriers and its potential to reduce health disparities across race and ethnicity, our evaluation prioritizes examining outcomes among non-White individuals and assessing the waiver's impact on existing disparities. We hypothesize that non-White groups are more likely than Whites to benefit from the extension of the MCO re-enrollment period. However, deficiencies in racial/ethnic data within Medicaid claims may hinder subgroup analyses, necessitating imputation to obtain more meaningful conclusions.

In addition to racial/ethnic subgroups, geographical subgroups will be considered in the evaluation. We will analyze the impact of the waiver on individuals residing in different regions of Illinois, considering variations in healthcare access, socioeconomic factors, and other relevant factors. By examining geographical differences, we aim to identify any disparities in the implementation and outcomes of the waiver across different areas of the state.

Additional subgroups encompass various age groups, which we might obtain by splitting the study population into 10-year age cohorts (e.g., 18-29, 30-39, 40-49) or by separating the population into two broad age categories: working-aged adults (18-64) and older adults (65+). We expect to find impactful differences by age. While older adults are eligible for Medicare, financial difficulties (e.g., trouble affording food, shelter, and other basic needs, can easily lead them to enter Medicaid, too (Willink et al., 2019). Indeed, older adults account for 21% of all Medicaid expenditures, compared to just 10% for adults (Kaiser Family Foundation, 2024). Given the disproportionate impact of this group on healthcare expenditures, a separate evaluation is appropriate whenever possible.

Moreover, the research team may analyze the waiver's effects by gender to provide more comprehensive insights into possible gender gaps in Medicaid utilization and efficacy. Focusing on gender differences in the waiver's impact could illuminate ways in which the waiver contributes to reducing health disparities.

Comparison Group

Depending on the research questions and available data, the comparison group for the evaluation will be either (1) pre-implementation within-state Medicaid members or (2) other state Medicaid populations, particularly in states that do not have a similar demonstration to Illinois, but which have similar demographic characteristics.

The pre-implementation population consists of individuals enrolled in Illinois Medicaid during the period spanning January 2018 to March 2021. Thus, we examine both pre-pandemic and pandemic periods before implementation. Moreover, this group will include clients who are disenrolled from and reenrolled into MCOs before the policy change, accounting for those who switched to a different MCO after their Medicaid FFS reinstatement.

Comparison states were selected from among states in which beneficiaries are not allowed to reenroll in their prior MCO when they submit their redetermination paperwork later than 60 days and within 90 days of eligibility termination. For our evaluation of waiving HPE, other states that have implemented an HPE program constitute a comparison group, allowing us to explore possible challenges and opportunities that could have been applicable to Illinois prior to the waiver demonstration.

Comparison State Selection Methodology

We explored the synthetic control method to select a comparison state, an approach that also suggested by CMS, but it would require sampling many states. Due to the expense of purchasing comparison state data from CMS's vendor of Medicaid and Medicare data (~$18,000 per state per data year; see section F. Evaluation Budget for details), the research team decided to choose just one or two states with which Illinois can be compared. Furthermore, because purchasing comparison state data requires a minimum necessary limit to protect the privacy of subjects, the team concluded that purchasing the fewest states needed for effective comparison would be in the best interest of subject privacy.

Comparison state selection was conducted through a mixed methods approach designed to identify states with high-quality data that were similar to Illinois in the policy environment, Medicaid population, and economic and demographic makeup, yet which had no policy akin to Illinois's 1115 policy changes. Because selecting a state that is perfectly identical to Illinois is not possible, we used a sequence of variables (detailed in Table 2) to identify a comparison state. Using the values of each variable multiplied by a consensus-derived weight, we calculated the Manhattan distance between each state. Because population differences between states were vast, only proportional data or policy data independent of population was used. For MCO spending, the only publicly available data were from the 2022 fiscal year. For all other Medicaid indicators and for monthly unemployment, 2019 data were used to avoid undue influence from the COVID-19 pandemic on the pre-intervention environment of each state. However, for statewide metrics

independent of the Medicaid population, data from the 2017-2021 American Community Survey were used to ensure greater accuracy.

Variables were selected for three broad categories: policy environment, Medicaid spending and population data, and state demographic data. Policy environment variables were selected from policy reports generated by the Kaiser Family Foundation (KFF); these variables (e.g., policies) were included to ensure that even though states differed regarding the 1115 policies, other policy changes pertinent to state Medicaid administration would not confound the comparison. Some policy environment variables were chosen as a proxy measure for the administrative infrastructure of the potential comparison state. For example, the processing of *ex-parte* renewals, the volume of renewals processed *ex-parte*, and the method of *ex-parte* renewal processing (i.e., automated or manual) helped inform the status of Medicaid renewal processing for each state in general. Other variables were chosen to control for the potential impact of policies that may affect the evaluation of eligibility and enrollment, such as CHIP/Medicaid HPE, ACA expansion status, and the 12-month postpartum Medicaid Coverage Extension implementation.

Medicaid spending and population data were also derived from KFF to ensure (1) that the populations enrolled in Medicaid were comparable and (2) that the state had a similar per-beneficiary spending amount as Illinois. To this end, the age distribution of the Medicaid population, the proportion of the Medicaid population enrolled in CHIP, and the makeup of Social Security Insurance beneficiaries within the state were selected as variables to assess a state's comparability to Illinois. Spending was assessed in terms of dollars spent per enrollee. The proportion of MCO spending was also included to examine the extent to which a state relies on MCOs to deliver Medicaid Services. Finally, the federal percentage of Medicaid spending and federal medical assistance percentage (FMAP) multiplier were also evaluated to provide insight into the impact of federal funding on state policy and health outcomes.

Demographic and economic data were also used to assess potential comparison states. To control for health inequities that may arise from educational and racial health disparities at the population level, the racial profile and the level of educational attainment of each comparison state were included. Economic data were used to eliminate confounding by macroeconomic conditions in potential comparison states (e.g., high unemployment rates increasing the Medicaid population by including workers who would not otherwise be enrolled in Medicaid). To this end, two economic indicators were included: (1) the percentage of the state population in the civilian labor force reported by the U.S. Census and (2) the unemployment rate in June 2023. Together, these two indicators offer a yearly and monthly picture of the economic conditions in each state. These data were complemented by U.S. Census data on states' median household income and the percentage of persons in poverty to illuminate further how economic conditions may shape each state's Medicaid landscape. Finally, a healthcare access variable (i.e., the proportion of the population living in a Health Provider Shortage Area) was added to the model to control for the effect of healthcare access on the overall health outcomes within each state.

The research team then weighted the variables based on their potential importance to the overall evaluation. Weighting allowed the team to control for some identified confounders (e.g.,

median household income may reflect cost of living rather than economic conditions) and to prioritize some variables in the model (e.g., it is reasonable to assume that ACA expansion status will have a greater effect than the Medicaid/CHIP pregnancy income limit). The weight of each variable was generated by consensus of the research team, with a simple score (from 1 = low importance to 4 = extremely high importance) assigned to each variable. The mean of the scores assigned by the panel (n = 7) was used to weight the model. Scores were submitted anonymously to avoid bias.

Data quality was assessed via the score assigned by the Data Quality Atlas, and these scores, along with the results of the Manhattan distance model, informed the selection of the comparison state. Because data quality was independent of the other variables, the research team evaluated data quality subjectively, as there were some concerns regarding data quality for most states. A potential comparison state's data quality thus had to be considered against the results of the Manhattan distance model, alongside external factors such as the research team's familiarity with the data and policy environment of the prospective states. After compiling, directly comparing, and discussing data for 12 potential comparison states, 9 of them were rejected due to either data quality (Table 4) or the incompatibility of policy environments with Illinois' for the purposes of the evaluation (e.g., several states that did not adopt the ACA expansion were eliminated, although one, Wisconsin, was retained by the final model). In addition to these 12 states, the research team discussed several other states for possible inclusion. New York and California were strongly considered due to the similarity of population distributions to that of Illinois (i.e., with dense urban areas contrasted with relatively sparse rural areas), but these two states were ultimately discarded due to fundamental differences between the policy environment and the public health environment of these states and Illinois. As a result of the research team's discussions, the comparison of data quality, and the initial explorations of the data, the research team ultimately concluded that the best possible comparison state would be a midwestern state like Illinois, to be chosen based on the results of the Manhattan distance model.

Weighted Manhattan Distance Computation: For an n-dimensional space, the formula for computing the weighted Manhattan distance between two points P = (p$_1$, p$_2$, …, p$_n$) and Q = (q$_1$, q$_2$, …, q$_n$) can be generalized as follows:

$$D = \sum_{i=1}^{n} w_i \cdot |p_i - q_i|$$

Where

- $|p_i - q_i|$ is the absolute difference between the ith coordinates of the two points.
- w_i is the weight assigned to the distance in the ith dimension.

In this formula, D represents the weighted Manhattan distance, and the summation runs over all n dimensions of the points in the space. Each term in the summation is the product of the absolute difference in a single dimension and its corresponding weight. This allows for different dimensions to have different "importance" in the distance calculation.

Analysis Results of Manhattan Distance Comparison: As shown in Figure 3, the analysis of the weighted Manhattan distance scores indicates a variation in distance values across the three states compared to Illinois. Iowa has the lowest distance score (19.62), suggesting it is the most similar to Illinois of the three potential comparison states. Nebraska has the highest distance score (24.37), denoting the highest dissimilarity. Wisconsin's score (20.53) falls between the scores of the other two states, suggesting moderate similarity to Illinois.

The differences in distance scores among the states can be attributed to the varying weights assigned to the compared dimensions, which represent factors we considered (e.g., economic indicators, demographic profiles, and policy outcomes). Iowa's proximity in score to Illinois suggests that, with respect to the weighted factors, it is more closely aligned with Illinois than the other states. Nebraska's higher score may reflect more significant differences in critical factors. Wisconsin's score suggests that while there are differences from Illinois, they are not as pronounced as those between Illinois and Nebraska and are minimally different from those between Illinois and Iowa. Iowa data are highly available and the research team is familiar with Wisconsin data. Therefore, the research team opted to select the data from both Wisconsin and Iowa. By selecting two states, the team will be able to increase statistical power via additional control series. Also, including two states will allow the team to address any underlying data errors due to the availability of a reserve control series when necessary.

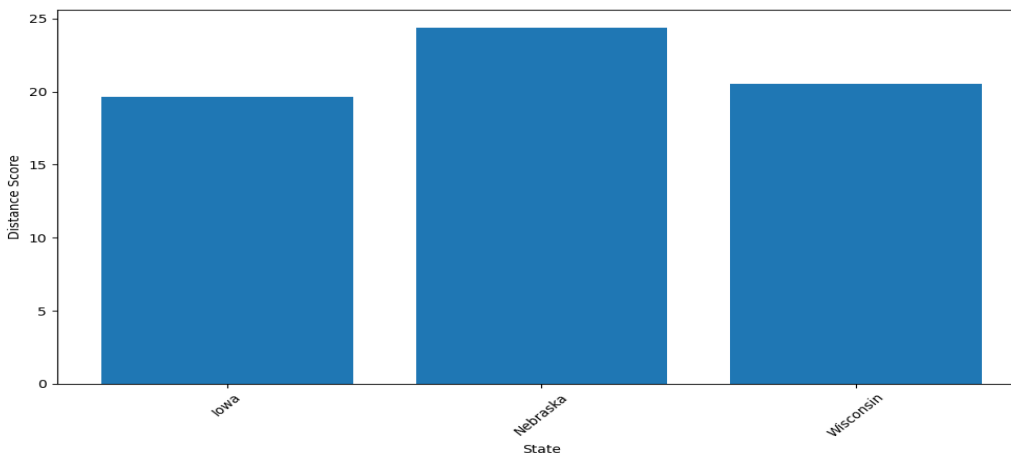*Figure 3. Weighted Manhattan Distance Scores from Illinois to Other States*

Table 2. Variables Used to Compare States

Variable	Consensus Weights	Reason for inclusion
Policy Environment		
ACA expansion status	4	Enrollment policy impact
Medicaid/CHIP income limit for pregnancy, January 2020	2.16	Affects enrolled population; enrollment policy impact
Presumptive eligibility for CHIP	2.33	May affect PE analysis; policy environment measure
Does state conduct e*x-parte* renewals?	3.5	Administrative comparison
Volume of renewals completed *ex-parte*	3	Administrative comparison
Ex-parte renewal method, mostly automated?	2.83	Administrative comparison
Does state conduct real-time eligibility determinations?	3.17	Administrative comparison
Volume of eligibility determinations completed in real-time	2.83	Administrative comparison
Eligibility determination method	3	Administrative comparison
Medicaid Spending and Enrollment Data		
Spending		
Federal percentage of Medicaid spending, FY 2019	2.83	Affects cost analysis; policy environment
FMAP percentage, FY 2019	2.67	Affects cost analysis; policy environment
Medicaid spending per enrollee, 2019	2.5	Affects cost analysis; may affect health outcomes
MCO spending as a percentage of total Medicaid spending, FY 2022	2.5	May affect MCO re-enrollment analysis; level and quality of care
Enrollment		
Enrollment by age as a percentage, 2019	2.67	Control for Medicaid population differences
CHIP as a percentage of Medicaid enrollment, June 2019	2.33	Control for Medicaid population differences
SSI beneficiaries, percentage distribution, 2019	2.33	Control for Medicaid population differences
State Economic and Demographic Indicators		
Race/ethnicity, 2020 U.S. Census	3	Control for potential health inequities
High school graduate or higher, percentage of persons aged 25+ years, 2017-2021	2.5	Control for potential health inequities
Bachelor's degree or higher, percentage of persons aged 25+ years, 2017-2021	2.5	Control for potential health inequities
Median household income, 2017-2021	2.67	May affect beneficiary population

Persons in poverty percentage, 2017-2021	3.17	May affect beneficiary population
Unemployment rate, June 2019	2.67	May affect beneficiary population
In civilian labor force, percentage of persons aged 16+ years, 2017-2021	2.5	May affect beneficiary population
Persons without health insurance, under age 65	3.33	Healthcare Access; quality of care
Healthcare Access		
Percentage of state population living in HPSA	2.67	Healthcare Access; quality of care

Table 3. Values of nominee states compared to Illinois

Variable	Value for IL	Value for WI	Value for IA	Value for NE
ACA expansion status*	Yes	No	Yes	Yes
Medicaid/CHIP income limit for pregnancy, January 2020*	213%	306%	318%	202%
Presumptive eligibility for CHIP*	Yes	Limited Coverage Proposed	No	No
Does state conduct e*x-parte* renewals?*	Yes	Yes	Yes	Yes
Volume of renewals completed *ex-parte,* >50%*	Yes	No	Yes	NA
Ex-parte renewal method, mostly automated*	No	Yes	Yes	NA
Does state conduct real-time eligibility determinations?*	Yes	Yes	Yes	Yes
Volume of eligibility determinations completed in real time, >50%*	NA	No	No	No
Eligibility determination method, mostly automated*	NA	Yes	Yes	No
Federal percentage of Medicaid spending, FY 2019*	66.34%	65.0%	72.9%	66.3%
FMAP percentage, FY 2019*	50.31%	59.4%	59.9%	52.6%
Medicaid spending per enrollee, 2019, all enrollees*	$5,491	$7,362	$6,658	$7,172
Medicaid spending per enrollee, 2019, seniors*	$13,191	$9,538	$16,646	$19,090
Medicaid spending per enrollee, 2019, individuals with disabilities*	$12,618	$21,256	$20,920	$16,111

Medicaid spending per enrollee, 2019, adults*	$2,989	$5,641	$5,626	$6,043
Medicaid spending per enrollee, 2019, children*	$2,265	$3,201	$2,486	$2,108
Medicaid spending per enrollee, 2019, newly eligible adults*	$6,113	NA	$5,014	NA
MCO spending as a percentage of total Medicaid spending, FY 2022*	74.2%	30.6%	88.8%	57.7%
Enrollment by age, as a percentage 2019, 0-18*	40.1%	39.6%	41.4%	59.7%
Enrollment by age, as a percentage 2019, 19-26*	11.4%	10.8%	12.6%	7.3%
Enrollment by age, as a percentage 2019, 27-44*	21.5%	18.2%	22.9%	14.0%
Enrollment by age, as a percentage 2019, 45-64*	17.6%	16.0%	16.6%	9.7%
Enrollment by age, as a percentage 2019, 65+*	9.3%	11.3%	6.5%	9.3%
CHIP as a percentage of Medicaid enrollment, June 2019*	41%	48.8%	50.1%	66.5%
SSI beneficiaries, percentage distribution, 2019*	2.1%	2.0%	1.6%	1.5%
Race/ethnicity, 2020 U.S. Census, White†	76.1%	86.6%	89.8%	87.5%
Race/ethnicity, 2020 U.S. Census, Black or African American†	14.7%	6.6%	4.4%	5.4%
Race/ethnicity, 2020 U.S. Census, American Indian and Alaska Native†	.06%	1.2%	.6%	1.6%
Race/ethnicity, 2020 U.S. Census, Asian†	6.3%	3.2%	2.8%	2.8%
Race/ethnicity, 2020 U.S. Census, Native Hawaiian and Other Pacific Islander†	.01%	0.1%	.2%	0.1%
Race/ethnicity, 2020 U.S. Census, two or more races†	2.2%	2.2%	2.2%	2.5%
Race/ethnicity, 2020 U.S. Census, Hispanic or Latino†	18.3%	7.6%	6.9%	12.3%
High school graduate or higher, percentage of persons aged 25+ years, 2017-2021†	89.9%	92.9%	92.8%	91.7%

Bachelor's degree or higher, percentage of persons aged 25+ years, 2017-2021†	36.2%	31.5%	29.7%	32.9%
Median household income, 2017-2021†	$72,563	$67,080	$65,429	$66,644
Persons in poverty, percentage, 2017-2021†	11.9%	10.7%	11.0%	11.2%
Unemployment rate, June 2019‡	3.6%	2.5%	2.7%	1.9%
In civilian labor force, percentage of persons aged 16+ years, 2017-2021 †	65.1%	66.0%	65.1%	68.9%
Persons without health insurance, under age 65†	7.7%	6.3%	5.4%	7.8%
Percentage of state population living in HPSA*	28.6%	27.6%	26.9%	7.42%
*Kaiser Family Foundation, State Health Facts †U.S. Census Bureau, 2017-2021 data is derived from the American Community Survey, 2020 data is derived from the 2020 census ‡Bureau of Labor Statistics				

Table 4. Selected Data Quality Scores for candidate comparison states' T-MSIS Analytic Files

Topic	Enrollment Spans	Age	Race/ Ethnicity	Gender	Income	IP* Claim Volume	OT* Claim Volume	Rx* Claim Volume	Total Medicaid Expenses
Iowa	LC	LC	NA	LC	HC	LC	LC	LC	LC
Idaho	LC	LC	NA	LC	HC	LC	LC	LC	LC
Nevada	LC	LC	NA	LC	LC	LC	MC	LC	LC
Montana	MC	LC	NA	LC	LC	LC	LC	LC	MC
Nebraska	MC	LC	NA	LC	HC	MC	LC	LC	LC
New Hampshire	MC	LC	NA	LC	LC	LC	LC	LC	MC
Arkansas	LC	LC	NA	LC	LC	LC	LC	MC	HC
Wisconsin	MC	LC	NA	LC	U	LC	MC	LC	LC
Missouri	MC	LC	NA	LC	U	MC	LC	LC	MC
South Carolina	U	LC	NA	LC	LC	LC	LC	MC	LC
Florida	U	LC	NA	LC	LC	LC	MC	LC	LC
Texas	MC	LC	NA	LC	MC	LC	LC	MC	MC
LC – Low Concerns (about data integrity), MC – Medium Concern, HC – High Concern, U – Unusable									
*IP – Inpatient, OT – Outpatient, Rx – Pharmacy									
Source: Medicaid Data Quality (DQ) Atlas, 2022 preliminary data									

3) Evaluation Period

The evaluation period for this analysis spans two distinct phases: the pre-waiver period and the post-waiver period. The pre-waiver period runs from January 2018 to December 2020. This period includes data prior to the COVID-19 pandemic, providing a true baseline for comparison. It also encompasses the onset of COVID-19 and subsequent declaration of public health emergency (PHE), which allows us to observe any immediate impacts of the pandemic on the variables of interest. The post-waiver period extends from January 2021 to December 2025. This period includes the waiver change implementation in January 2021. It overlaps with the PHE continuous enrollment provision, which continued until April 2023. This overlap is crucial for understanding how the waiver change interacts with the PHE provisions. After April 2023, the data reflects a period without the PHE continuous enrollment provision, offering insights into the long-term effects of the waiver change without the confounding influence of the PHE.

Figure 4.1 provides visual representations of the evaluation period for the primary analysis. This analysis aims to measure the overall impact of the waiver change by comparing the pre-waiver and post-waiver periods. This approach provides a comprehensive view of the waiver's effects while accounting for the immediate context of COVID-19 and the PHE.

Figure 4.1. Evaluation Period for the Primary Analysis

Pre-waiver

Post-waiver

January 2018 – December 2020
(3 years)

January 2021 – December 2025
(5 years)

Figure 4.2 illustrates the evaluation period for the secondary analysis. To isolate the impacts of additional influencing factors such as COVID-19 and the PHE continuous enrollment provision, a secondary analysis will be conducted. This secondary analysis will separate the pre-waiver and post-waiver periods into more granular phases, enabling a more detailed examination of how these factors may have affected the outcomes independently of the waiver change. Detailed methodological approaches to isolate the interim effects in the secondary analysis are outlined in Section D, Methodological Limitations.

Figure 4.2. Evaluation Period for the Secondary Analysis

Pre-waiver (1)

Pre-waiver (2)
COVID&PHE

Post-waiver (1)
COVID&PHE

Post-waiver (2)

January 2018 – February 2020
(2 years 2 months)

March 2020 – December 2020
(10 months)

January 2021– April 2023
(2 years 4 months)

May 2023 – December 2025
(2 years 8 months)
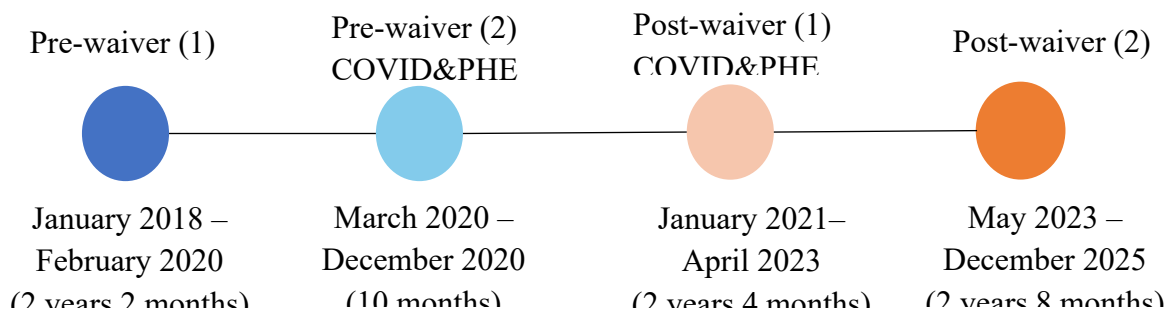
4) Evaluation Measures and Analytic Methods

Table 5.1. Summary of Measures and Analytic Approach for Goal 1				
Demonstration Goal 1: Promote continuity of coverage and care **Hypothesis 1.1:** The demonstration will reduce MCO coverage disruption.				
Research question	Proposed outcomes or indicators	Sample or population subgroups to be compared	Potential data sources	Draft analytical approach
1.1.1 Are enrollees less likely to experience an MCO coverage disruption if a 90-day reinstatement period into the prior MCO is allowed?	• The number of MCO enrollees who had experienced an MCO coverage gap divided by the total number of Medicaid enrollees (quarterly and annually, as feasible, during the pre- vs. post-waiver period). • Length of MCO enrollment gaps (in a year). • The number of enrollees who fail to recertify but subsequently reenroll in the same health plan (in a year).	Medicaid enrollees Subgroups: • Racial/ethnic groups (e.g., White, Black, Hispanic, others) • Age groups (e.g., children, young adults, adults, seniors) • Geographical groups (e.g., urban, suburban, rural) • By gender	Medicaid enrollment data	• Comparative interrupted time series (CITS) • Difference-in-differences (DID) • Pretest-posttest design • Propensity score matching (PSM) for matching demonstration and comparison group
1.1.2 Does waiving HPE minimize the churns of Medicaid FFS and Medicaid managed care?	• The number of MCO enrollees transitioned from FFS within 12 months, divided by the total number of Medicaid enrollees (pre- vs. post-waiver period)	Medicaid enrollees	Medicaid enrollment data	• ITS • Pretest-posttest design • Descriptive analysis

	• Churns between managed care and FFS (pre- vs. post-waiver period)	Medicaid enrollees	Stakeholder interview	• Thematic analysis
Hypothesis 1.2: The demonstration will increase the MCO coverage period.				
1.2. Does allowing a 90-day reinstatement period into the prior MCO increase months of MCO coverage?	• The total number of months of Medicaid coverage period covered by MCO (in one and two years[s]). Subgroups: • Racial/ethnic groups (e.g., White, Black, Hispanic, others) • Age groups (e.g., children, young adults, adults, seniors) • Geographical groups (e.g., urban, suburban, rural) • By gender	Medicaid enrollees	Medicaid enrollment data	• CITS • DID • Pretest-posttest design • PSM for matching demonstration and comparison group
Hypothesis 1.3: The demonstration will promote full Medicaid applications.				
1.3. Does waiving HPE continue to promote hospitals' assistance with full Medicaid benefit applications?	• Hospitals' assistance with full Medicaid applications (pre- vs. post-waiver period).	Medicaid enrollees	Stakeholder interview	• Thematic analysis

Hypothesis 1.4: The demonstration will increase the enrollment in MCO.			
1.4. Does the demonstration increase the rate of enrollment in MCO?	• Total number of Medicaid MCO enrollees divided by total number of Medicaid enrollees (quarterly and annually, as feasible, during the pre- vs. post-waiver period)	Medicaid enrollees Subgroups: • Racial/ethnic groups (e.g., White, Black, Hispanic, others) • Age groups (e.g., children, young adults, adults, seniors) • Geographical groups (e.g., urban, suburban, rural) • By gender	Medicaid enrollment data	• CITS • DID • Pretest-posttest design • PSM for matching demonstration and comparison group
Hypothesis 1.5: The demonstration will affect the timing of enrollment in MCO.			
1.5. Does waiving HPE encourage timely enrollment in MCO?	• Application processing backlog and turnaround time • Reduced duplicative processes	Medicaid enrollees	Stakeholder interview	• Thematic analysis
	• Time to become enrolled in Medicaid from the date of first visit to a hospital	Medicaid enrollees	Medicaid enrollment and claims data; Stakeholder interview	• ITS • Pretest-posttest design • Descriptive analysis • Thematic analysis
Hypothesis 1.6: The demonstration will improve care coordination.			
1.6. Does the demonstration improve care coordination?	• Emergency Transfer Communication: Percentage of patients transferred to another health care facility whose medical record documentation indicated that the required information was communicated to the receiving	Medicaid enrollees Subgroups: • Racial/ethnic groups (e.g., White,	Medicaid claims data	• CITS • DID • Pretest-posttest design

	facility prior to departure (subsection 1) or within 30 minutes of transfer (subsections 2-7) (CBE ID: 0291; CMIT #1120). • Medication Reconciliation Post-Discharge: The percentage of discharges for patients at least 18 years of age in which the discharge medication list was reconciled with the current medication list in the outpatient medical record by a prescribing practitioner, clinical pharmacist, or registered nurse (CBE ID: 0097, CMIT #441). • Correlation with Existing Imaging Studies for All Patients Undergoing Bone Scintigraphy: Percentage of final reports for all patients, regardless of age, undergoing bone scintigraphy that includes physician documentation of correlation with existing relevant imaging studies (e.g., x-ray, MRI, CT) that were performed (CBE ID: 0511, CMIT #470). • Medication Information: Percentage of patients transferred to another health care facility whose medical record documentation indicated that medication information was communicated to the receiving facility within 60 minutes of departure (CBE ID: 0293; CMIT #1404). • Nursing Information: Percentage of patients transferred to another health care facility whose	Black, Hispanic, others) • Age groups (e.g., children, young adults, adults, seniors) • Geographical groups (e.g., urban, suburban, rural) • By gender		• PSM for matching demonstration and comparison group

	medical record documentation indicated that nursing information was communicated to the receiving facility within 60 minutes of departure (CBE ID: 0296; CMIT #1402). • Patient Information: Percentage of patients transferred to another health care facility whose medical record documentation indicated that patient information was communicated to the receiving facility within 60 minutes of departure (CBE ID: 0294; CMIT #1399). • Physician Information: Percentage of patients transferred to another health care facility whose medical record documentation indicated that physician information was communicated to the receiving facility within 60 minutes of departure (CBE ID: 0295; CMIT #1400). • Procedures and Tests: Patients who are transferred from an emergency department (ED) to another healthcare facility whose medical record documentation indicated that a list of tests performed and their results was communicated to the receiving facility within 60 minutes of discharge (CBE ID: 0297; CMIT #1401). • Vital Signs: Percentage of patients transferred to another health care facility whose medical record documentation indicated that the entire vital signs record was communicated to the			

	receiving facility within 60 minutes of departure (CBE ID: 0292; CMIT #1403). (Measurement on a quarterly or annual basis, as feasible.)		
Hypothesis 1.7: The demonstration will increase continuity of care.			
1.7 Does continuity of MCO coverage increase continuity of care?	• Primary care continuity: average number of primary care visits per year. • Bice-Boxerman Continuity of Care (COC): Patient-level care continuity that ranges from 0 to 1; 0 reflects completely disjointed care (a different provider for each visit), and 1 reflects complete continuity with the same provider for all visits. $$COC = \frac{\sum_{j=1}^{s} n_j^2 - n}{n(n-1)}$$ n = total number of outpatient visits n_j = number of visits to provider j s = number of providers • Herfindahl-Hirschman Index (HHI): to measure market concentration using the sum of the squares of discharges from a disease category, viewed as a proportion of all discharges from the hospital. $$HHI = \sum_{i=1}(P_i^2)$$	Medicaid enrollees Subgroups: • Racial/ethnic groups (e.g., White, Black, Hispanic, others) • Age groups (e.g., children, young adults, adults, seniors) • Geographical groups (e.g., urban, suburban, rural) • By gender	Medicaid claims data	• CITS • DID • Pretest-posttest design • PSM for matching demonstration and comparison group

P_i = proportion of the number of each hospital visits accounted for by the i th hospital.

• Usual Provider of Care (UPC): The number of visits to the provider or practice group with the highest number of visits divided by the total number of visits.

$$UPC = \frac{Max\ (n_1, n_2, ..., n_M)}{N}$$

N = total number of visits
n = number of visits to each provider
M = total number of provider

• Sequential Continuity Index (SECON): The fraction of sequential visit pairs in which a patient sees the same provider (i.e., sees the same provider at two consecutive visits).

$$SECON = \frac{\sum_{j=1}^{n-1} c_j}{n - 1}$$

n = total number of visits
c_j = indicator of sequential visits to same providers; equal to 1 if visits j and $j+1$ are to the same provider, 0 otherwise

(Measurement on a quarterly or annual basis, as feasible)

Table 5.2. Summary of Measures and Analytic Approach for Goal 2				
Demonstration Goal 2: Improve MCO quality oversight **Hypothesis 2**: The demonstration will improve MCO quality oversight.				
Research question	Proposed outcome measures or indicators	Sample or population subgroups to be compared	Potential data sources	Draft analytical approach
2. Does improved continuity of MCO coverage allow for more complete MCO quality measurement through HEDIS reporting?	• The rate of MCO enrollees meeting the HEDIS 12-month continuous enrollment standard for each year.	MCO enrollees	Medicaid enrollment data	• CITS • DID • Pretest-posttest design • PSM for matching demonstration and comparison group

Table 5.3. Summary of Measures and Analytic Approach for Goal 3				
Demonstration Goal 3: Avoid administrative complexities **Hypothesis 3:** The demonstration will maintain or reduce administrative costs and time.				
Research question	Proposed outcome measures or indicators	Sample or population subgroups to be compared	Potential data sources	Draft analytical approach
3.1. Does allowing beneficiaries to be reenrolled automatically into their previous MCO within the 90-day reconsideration period reduce administrative costs and time?	• Administrative costs to reenroll beneficiaries who submit late redetermination paperwork within the 90-day reconsideration period divided by the number of Medicaid enrollees (quarterly and annually, as feasible, during the pre- vs. post-intervention period). • Staff time equivalents needed to reenroll beneficiaries who submit late redetermination paperwork within the 90-day reconsideration	Medicaid enrollees; Medicaid agency; MCOs; providers	Illinois state administrative records (if available); stakeholder interview	• ITS • Pretest-posttest design • Thematic analysis

	period divided by the number of Medicaid enrollees			
3.2. Does waiving HPE prevent increases in application processing costs and time?	• Administrative costs to process applications • Staff time (including casework staff) equivalents needed to process applications	Medicaid enrollees; Medicaid agency; providers	Stakeholder interview	• Thematic analysis
3.3. Does waiving HPE prevent increases in Medicaid application backlog?	• Medicaid application backlog: the number of Medicaid applications that have surpassed 45 days for initial applications or 60 days for renewals.[2]	Medicaid enrollees; Medicaid agency	Illinois state administrative records	• ITS • Pretest-posttest design • Descriptive analysis

Table 5.4. Summary of Measures and Analytic Approach for Goal 4				
Demonstration Goal 4: Provide quality care and improve health outcomes **Hypothesis 4.1:** The demonstration will improve the quality of care.				
Research Question	Proposed outcome measures or indicators	Sample or population subgroups to be compared	Potential data sources	Draft analytical approach
4.1. Does the demonstration improve the quality of care?	Quality of Care[3]: • Cervical Cancer Screening (CMIT[4]#118) • Chlamydia Screening in Women Ages 21 to 24 (CMIT#128) • Breast Cancer Screening (CMIT#93) • Prenatal and Postpartum Care (CMIT#581) • Controlling High Blood Pressure (CMIT#167)	Medicaid enrollees Subgroups: • Women • Pregnant women • Racial/ethnic groups (e.g., White, Black, Hispanic, others)	Medicaid claims data	• CITS • DID • Pretest-posttest design • PSM for matching demonstration and comparison group

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[2] The State of Illinois reports backlogs as delays of 45 days or more for initial applications and 60 days or more for renewals. Retrieved from https://www.dhs.state.il.us/page.aspx?item=117858 or https://hfs.illinois.gov/content/dam/soi/en/web/hfs/sitecollectiondocuments/quarter12024backlogreport.pdf

[3] The measures are referenced from CMS Core Set of Adult Health Care Quality Meausres https://www.medicaid.gov/medicaid/quality-of-care/performance-measurement/adult-and-child-health-care-quality-measures/adult-health-care-quality-measures/index.html

[4] The CMS Measures Inventory Tool (CMIT) is the repository of record for information about the measures that CMS uses to promote health care quality and quality improvement.

	• Hemoglobin A1c Control for Patients with Diabetes (CMIT#148) • HIV Viral Load Suppression (CMIT#325) • Initiation and Engagement of Alcohol and Other Drug Abuse or Dependence Treatment (CMIT#394) • Follow-up After Hospitalization for Mental Illness within 7 days or 30 days - Ages 6-17 (CMIT#268) - Ages 18 and older (CMIT#265) • Use of Pharmacotherapy for Opioid Use Disorder (CMIT#750) • Follow-Up After Emergency Department Visit for Alcohol and Other Drug Abuse or Dependence (CMIT#268) • Immunizations for Adolescents (CMIT#1775)	• Age groups (e.g., children, young adults, adults, seniors) • Geographical groups (e.g., urban, suburban, rural)		
Hypothesis 4.2: The demonstration will improve health outcomes among beneficiaries.				
4.2. Does the demonstration improve health outcomes among beneficiaries?	• Rate of ED visits (HEDIS Emergency Department Utilization[5]; CMIT #234). • Proportion of high-frequency ED utilizers. (Measurement on a quarterly or annual basis, as it is feasible)	Medicaid enrollees Subgroups: • Racial/ethnic groups (e.g., White, Black, Hispanic, others) • Age groups (e.g., children, young adults, adults, seniors)	Medicaid claims data	• CITS • DID • Pretest-posttest design • PSM for matching demonstration and comparison group

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[5] This measure is drawn from the HEDIS established by NCQA. The observed-to-expected ratio is multiplied by the emergency department visit rate across all health plans to produce a risk-standardized rate that allows for national comparison.

|		• Geographical groups (e.g., urban, suburban, rural) • By gender		

Comparative Interrupted Time Series and Interrupted Time Series

Comparative interrupted times series (CITS) and interrupted time series (ITS) designs are quasi-experimental approaches to evaluate interventions when there are multiple and equally spaced data points before and after the intervention. Wheresa ITS does not require a comparison group, CITS is an extension of ITS through the addition of a comparison group to further minimize the potential for biased results arising from concurrent external events; as such, it will be the primary analytic method for this evaluation.

The main objective of ITS is to examine whether the data pattern observed post-intervention is different from the data pattern observed pre-intervention. Several effect estimates can help describe the impact of waiver administration. For example, a change in level corresponds to the difference in outcomes at the time of administration from the predicted pre-administration trend, and a change in slope corresponds to the difference between the post- and pre-administration slopes. For accuracy, it is necessary to report both level change and change in trend to interpret the results of an ITS study.

We employ ITS with the assumption that the waiver demonstration, and not any other factor, will produce any change that occurs. Thus, the measurements taken before the demonstration's initiation will be used to model a counterfactual scenario in which the intervention did not occur. The regression model is explained in Figure 5.

Figure 5. Interrupted Time Series Approach with No Comparison State/Group: Graphical Depiction of a Segmented Linear Regression Model
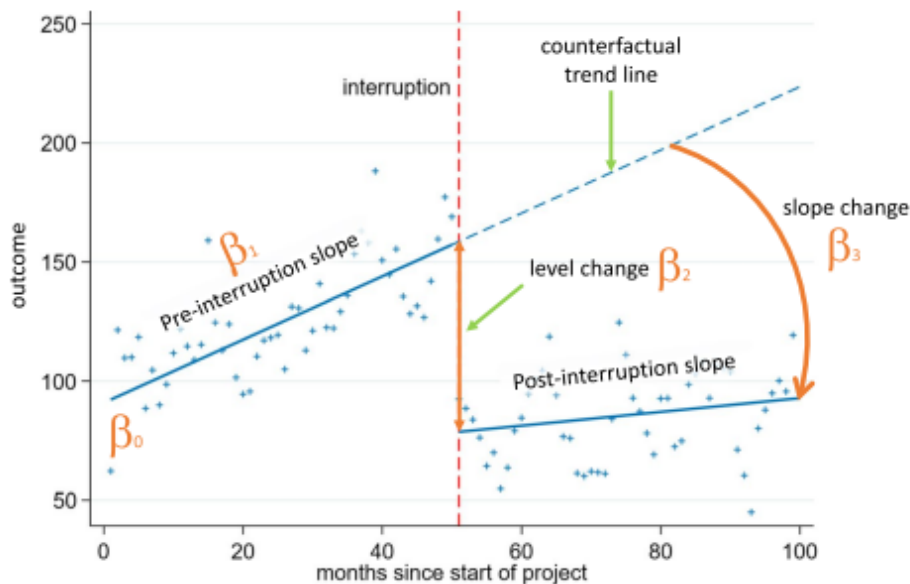
Source: Simon L. Turner, 2021

The model using the single group ITS can be presented as follows:

$$Y = \beta_0 + \beta_1 T + \beta_2 X + \beta_3 XT + \varepsilon$$

Where T is the time elapsed since the start of the study

X is the study phase (pre-waiver = 0, post-waiver = 1);

Y is the outcome at time T;

XT is the time after interruption/waiver administration;

β_0 represents the intercept at the initial data collection period;

β_1 is the pre-interruption slope until the waiver began on January 2021;

β_2 is the level change following the interruption that measures in the period immediately following the waiver; and

β_3 represents the difference between pre-interruption and post-interruption slopes of the outcome.

Including a comparison group in the CITS design will add another trend line to the figure above, as Figure 6 illustrates. Although CITS design is related to difference-in-differences design in a way that uses a comparison group and observations before and after an intervention, CITS offers the additional benefit of assessing the impact of the intervention, both the changes in outcome level and changes in the long-term trend. To yield this benefit, CITS design requires multiple data points, unlike DID. A detailed description of DID will be provided in the following section.

Figure 6. Interrupted Time Series Approach with A Comparison State/Group
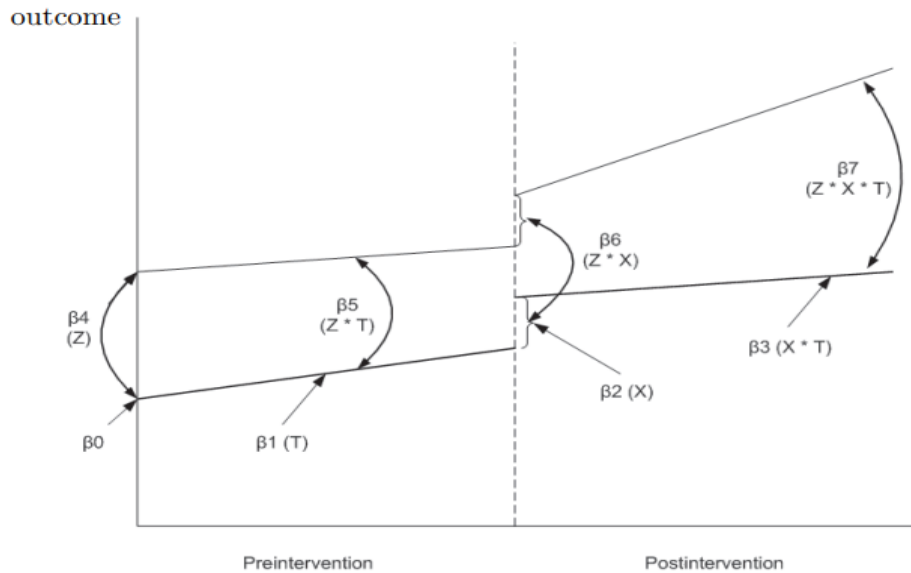
Note. The lower line refers to the visual depiction of a single group, and the upper and lower lines refer to the visual depiction of multiple groups.

Source: Linden & Adams, 2011

The model using CITS can be presented as follows:

$$Y = \beta_0 + \beta_1 T + \beta_2 X + \beta_3 XT + \beta_4 Z + \beta_5 ZT + \beta_6 ZX + \beta_7 ZXT + \varepsilon$$

Where Z is a dummy variable indicating waiver state (1) or comparison state (0);
   ZT is time for the waiver state and 0 for the comparison state;
   ZX is the study phase for the waiver state and 0 for the comparison state;
   ZXT is time after interruption/waiver for the waiver state and 0 for comparison state;
   β_4 is the difference in the level between the waiver and comparison state at the beginning of the data collection period;
   β_5 is the difference in the slope between the waiver and comparison state prior to the waiver;
   β_6 is the difference in the level between waiver and comparison state in the period. Immediately following the waiver; and
   β_7 is the difference between waiver and comparison state in the slope after initiation of the administration.

Using ITS and CITS to estimate regression coefficients and examine long-term trends effectively requires a minimum of three to four data points (both before and after an intervention) in the case of yearly data[6] and a minimum of 12 data points (both before and after an intervention) in the case of monthly data.[7] Depending on the granularity of data (i.e., available intervals of measurement), the ITS or DID approach will be applied to our evaluation. Because the COVID-19 PHE occurred during the pre-waiver period and continued into the initial stages of the post-waiver administration, the analysis will be adjusted to account for any COVID and/or PHE impact, as detailed in the limitations section.

Difference-in-Differences Design

Difference-in-Differences (DID) is a quasi-experimental design, typically used to estimate the effect of a specific intervention, such as the enactment of policy or large-scale program implementation like the section 1115(a) demonstration. DID evaluates the impact of a program/policy by looking at whether the demonstration state deviates from its baseline mean by a greater amount than the comparison state. Consequently, DID requires data from both pre-and post-waiver periods as well as data from both the state where the demonstration is implemented and from another similar state not implementing this or a similar demonstration. We present a graphical explanation of this approach with one pre-intervention and one post-intervention datapoint in Figure 7.

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[6] Hategeka, C., Ruton, H., Karamouzian, M., Lynd, L. D., & Law, M. R. (2020). Use of interrupted time series methods in the evaluation of health system quality improvement interventions: A methodological systematic review. *BMJ Global Health*, *5*(10). https://doi.org/10.1136/bmjgh-2020-003567

[7] Wagner, A. K., Soumerai, S. B., Zhang, F., & Ross-Degnan, D. (2002). Segmented regression analysis of interrupted timeseries studies in medication use research. *Journal of Clinical Pharmacy and Therapeutics*, *27*, 299-309. https://doi.org/10.1046/j.1365-2710.2002.00430.x

Figure 7. The Difference-in-Differences Approach
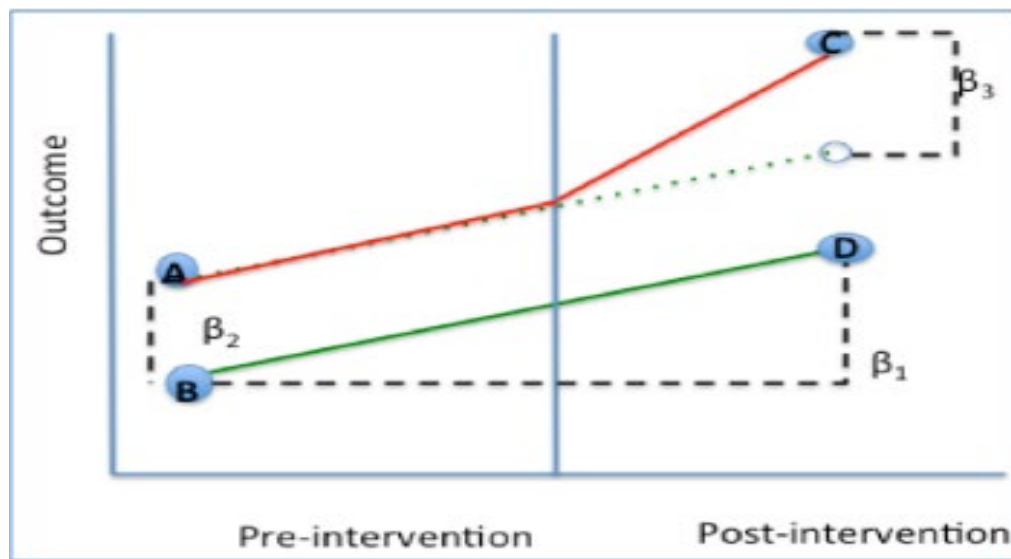
The regression model using DID is:

Outcome = constant + Time*β_1 + Intervention*β_2 + (Time*Intervention)*β_3 + Covariates*β_4 + ε

Where,

β_0 = Average before section 1115(a) waiver demonstration period
β_1 = Time trend in the comparison group (other state) = (D-B)
β_2 = Difference between two groups before the waiver demonstration = (A-B)
β_3 = Difference in changes over time = (C-A) – (D-B)

The idea behind the DID identification strategy is simple. The two groups could exhibit observable differences, meaning their group-specific means might differ even in the absence of any waiver administration. However, if this difference remains constant over time (i.e., the parallel trend assumption), regardless of the waiver, it can be eliminated by deducting the group-specific means of the outcome of interest. The remaining difference between these group-specific changes must then reflect the causal effect of interest. If available, multiple pre-waiver time points from Illinois and the comparison state will be used to satisfy the parallel trend assumption, making the DID analysis more robust.

Pretest-posttest Design

Where data quality is highly suspect or the quantity of data is insufficient for the construction of a time series, we will resort to a pretest-posttest design to allow for some evaluation of the impact of the waiver. Pretest-posttest designs can be used in both experimental and quasi-experimental research and may or may not include a comparison group. They involve analyzing the differences in the outcome before and after the waiver demonstration to see if the waiver has a significant effect on the outcome. The research team will run a one-way, two-sample t-test between the pre-waiver and the post-waiver datapoints and determine if there is any significant change and the effect size of the change. Because this design offers no way to account

for time, the research team only intends to use it for exploratory analyses or in instances where data availability is limited.

Although a pretest–posttest design effectively manages individual differences and reflects contextual factors through baseline/pretest measures, the absence of a comparison group poses challenges in attributing observed changes to the waiver administration. External factors or maturation may contribute to the outcomes, complicating the interpretation of causality. To minimize these limitations, the research team will bolster its strength by including covariates on which to match beneficiaries. This will reduce the chances of confounding by another factor. The team will also control for covariates using propensity score matching to generate an ideally matched subset of the population.

One-Group Posttest Design

In a one-group posttest design, data are collected only after the administration of a waiver. The research team will use this design only when it is difficult to obtain pre-waiver measurements or when the primary focus of the analysis is to understand the immediate effects of administration. Because this design is vulnerable to validity threats, it will be used only in cases where pre-demonstration and comparison group data are unavailable. Measures will include stakeholder interviews designed to gauge perceptions about the effects of the waiver demonstration. The absence of baseline/pretest data in this design makes it more challenging to identify alternative explanations for observed changes, such as external factors, maturation effects, and selection bias. These limitations will be carefully considered as the research team develops interview questions and subsequent analytic approaches. The comprehensive contexts surrounding the waiver change will be considered when collecting and describing the experiences of stakeholders, as well as when explaining the impact of the demonstration. The research team will develop a detailed qualitative analytic approach in conjunction with a data collection plan.

Propensity Score Matching

When it is possible to directly compare the health outcomes of beneficiaries, we will use propensity score matching to match beneficiaries from Illinois to a pool of comparable beneficiaries in either of the two comparison states. Because we will match at the level of individual beneficiaries, not states, we can match beneficiaries from Illinois to those from either Wisconsin or Iowa. This will both expand the overall pool of beneficiaries to match with and control for discrepancies between the comparison states and Illinois. For example, any differences that may arise from the preexisting differences between Illinois and Wisconsin can be controlled for via the addition of matched Iowan beneficiaries.

Propensity score matching for claims data will involve creating a subset of beneficiaries by selecting first an exposed beneficiary (i.e., an Illinois Medicaid beneficiary) and matching with an unexposed beneficiary (from Wisconsin or Iowa) with identical or similar levels of a list of covariates, to be selected at the time of analysis (Seeger et al., 2005). The subset will, therefore, control for the selected covariates, and one of the above analytic methods (ITS, DID, or pre/post-testing) will be applied to the subset to assess the impact of this demonstration.

The evaluation plan will include a comprehensive sensitivity analysis to examine the stability of our findings under various scenarios and ensure methodological robustness. We will

explore the effects of modifying the selection of covariates, utilizing alternative matching algorithms (e.g., nearest neighbor, kernel, caliper matching), and adjusting the handling of unmatched cases. This approach allows us to evaluate the sensitivity of our results to these methodological choices, ensuring that assumptions and matching strategies do not affect our conclusions. Thus, our sensitivity analysis will provide a deeper understanding of the reliability and generalizability of our findings.

The use of propensity score matching (PSM) comes with the risk of reducing generalizability due to incomplete matching (Seeger et al., 2005). While PSM will be applied selectively to metrics as the need arises, matching will likely be incomplete, given the numeric and demographic discrepancies between the states used in the analysis. As a result, it will be impossible to disprove that the unmatched population exhibits a treatment effect not present in the matched population. Therefore, each use of PSM and the selection of matching variables will be carefully weighed against the loss of generalizability. Furthermore, PSM functions best with a limited number of covariates: it has difficulty handling large volumes of covariates. The research team will thus be careful about covariate selection (Seeger et al., 2005). Some potential covariates include race/ethnicity, gender, and age as straightforward demographic controls.

Thematic Analysis for Qualitative Data

The primary method of qualitative data analysis will be thematic analysis, an approach that identifies, analyzes, and reports patterns within the interview data. The process begins with a thorough reading of the interview transcripts, allowing the research team to immerse themselves in the data and gain a comprehensive understanding of the participants' narratives. Next, meaningful segments of text are labeled with initial codes, capturing specific concepts related to administrative burdens, continuity of care, and the impacts of Medicaid policies.

The research team then examines these codes and groups them into broader categories that reflect key themes within the data. For example, themes might include topics such as "barriers to MCO enrollment," "challenges with administrative procedures," and "continuity of care improvements." The contents of each category are then condensed to distill their essence, creating a narrative that reflects participants' views and experiences. Finally, these summaries are synthesized into a cohesive interpretation, highlighting patterns, variations, and broader implications of the data in relation to the study's objectives. The research team will use the NVivo software package to manage and analyze the qualitative data.

5) Data Sources

(1) Illinois Medicaid Data

- *Medicaid Enrollment Data*
  The data will contain information regarding the program eligibility and enrollment status of people who applied for Medicaid, including MCO enrollment start and end dates, as well as enrollees' socio-demographic characteristics (e.g., gender, race/ethnicity, income). This data, covering three years prior to the demonstration and five years post-demonstration, will be provided by the Illinois Department of Healthcare and Family Services.

- *Medicaid Claims Data*

     Medicaid claims data will include the records from both fee-for-service (FFS) providers and MCOs. The research team will focus particularly on data containing a record of the actual healthcare services provided and the associated financial transactions. This administrative claims data contains information on items such as (1) date and location of service, (2) type and cost of service, (3) procedures performed, (4) extent of service (e.g., days in hospital), (5) beneficiary demographics such as age, gender, and location of residence, and (6) program information for the beneficiary, such as type and dates of coverage or information needed for billing and mailing purposes. The Illinois Department of Healthcare and Family Services will provide this data for almost three years before the demonstration and five years post-demonstration. Illinois Medicaid claims data will be obtained via direct access to the State of Illinois Department of Healthcare and Family Services Electronic Data Warehouse (EDW), which contains all Medicaid claims submitted to the state and is updated as claims are made.

- *Administrative Records Data*

     Administrative record data includes data sources for measuring backlogs. The Illinois Department of Human Services (IDHS) and the Illinois Department of Healthcare and Family Services (HFS) collaborate to report findings from the data quarterly. Given that the state of Illinois is mandated to determine Medicaid eligibility within 45 days, the data used to measure backlog results include total applications on hand by number of days on hand, the number of applications pending for more than 45 days, and the number of pending applications by basis for determining income eligibility.

     (2) Comparison State Data

- *Transformed Medicaid Statistical Information System (T-MSIS) Analytic Files (TAF)*

     The data will include all claim records submitted by providers in Iowa and Wisconsin, with the exception of long-term care claims, as those are not pertinent to analysis of the waiver. The data will cover almost three years prior to the demonstration and the five years following the demonstration. Also, the data will contain enrollment data, allowing for the continuity of coverage rates in Iowa and Wisconsin to be measured and compared to the continuity of coverage rates in Illinois.

     Accessing this data will require several steps. First, the research team will obtain approval for a participant-consent-exemption from the University of Illinois' Institutional Review Board (IRB) as required for the use of protected health information (PHI) archival data. Next, the research team will include this IRB approval in at least two applications for the T-MSIS files sent to CMS's vendor of Medicaid data: the Research Data Assistance Center (ResDAC). These applications will include the request for the re-use of Iowa data, which the team has already purchased for another 1115 evaluation as a comparison state, and an application for the purchase and use of Wisconsin's Medicaid data for the first time by the evaluation team. Once ResDAC's administrative reviewer, technical advisor, and executive advisor approve these applications (a process that may take several months), the team's funder— the Office of Medicaid Innovation (OMI)— will approve an invoice already included in the approved project budget. Finally, the approved and funded data request will be sent to CMS for processing, following which the data will be shipped in a secure physical format to the research team's data storage partners at the National Center for Super Computing Applications, who have already

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received permission to store Medicaid and Medicare data via an approved Data Management Plan Self-Attestation Questionnaire (DMP-SAQ) through ResDAC.

(3) Stakeholder Interviews

Interviews will be conducted to evaluate the impact of the demonstration on continuity of care and administrative simplification. These interviews will engage key stakeholders, including Illinois Medicaid administrators and healthcare providers, particularly those working in hospitals in Illinois.

The interviews will focus on two primary themes. The first of these is continuity of coverage in the absence of HPE program. This will include examining timely enrollment in Medicaid and the churns between Fee-For-Services (FFS) and managed care. The second theme is the administrative workload before and after the demonstration. Questions will address time and expenses related to reenrolling beneficiaries who submit late redetermination paperwork to managed care, and the administrative efficiencies gained through waiving the HPE program.

We anticipate conducting interviews with approximately 25 stakeholders, including Illinois Medicaid staff members and providers, within two to three years after the demonstration implementation. The format of these sessions, whether individual interviews or focus groups, will be determined based on feasibility considerations.

(4) Data Sources Considered and Excluded

To provide the most thorough analysis, the research team assessed the utility of the following data sources for a comparison of Illinois Medicaid recipients' health outcomes and quality of care with those of other states. However, the two assessed datasets and the possibility of a survey presented significant limitations to the proposed analysis, leading to their exclusion from the final analysis.

- *Behavioral Risk Factor Surveillance System (BRFSS)*
  The BRFSS is an annual national survey jointly administered by the Centers for Disease Control and Prevention and state health departments. The data include information on health status and health risk behaviors and allows for comparisons of health outcomes in Illinois with outcomes in other states. From 2015 to 2019, the Illinois BRFSS fielded 37,000 surveys and polled a different set of counties each year, which may make it challenging to identify Medicaid-specific subgroups within Illinois. Using raw data obtained from the CDC, the research team determined that Illinois has fewer than 500 respondents to BRFSS per year, as do the comparison states. Additionally, BRFSS does not ask respondents if they are enrolled in Medicaid, but only whether Medicaid is their primary insurance. This means that the BRFSS population is not appropriate for an evaluation of all Medicaid beneficiaries in Illinois, as this population is not limited to those who primarily use Medicaid. Given the limitations of the sample size and the fact that the survey population did not fit the evaluation's scope, BRFSS was excluded as a secondary dataset for the evaluation.

- *Medical Expenditure Panel Survey (MEPS)*
  MEPS is a national data source measuring how Americans use and pay for medical care, health insurance, and out-of-pocket spending, including family-level and individual-level information on health status, medical events, health insurance coverage, and satisfaction with care. The survey had five waves of interviews over a two-year period. MEPS also includes a

survey of medical care providers that supplements the household survey related to medical events and costs. Like BRFSS data, MEPS has limitations regarding sample size, with only 27,322 individuals sampled nationwide in 2021. Furthermore, the MEPS dataset accessed by the research team did not assign respondents to states, meaning that while the entire sample population has used Medicaid benefits, the location of the beneficiaries is unknown. Due to this limitation, MEPS was ruled out as a secondary data source, as the entire evaluation hinges on having state-specific data. While the research team will continue to investigate state-specific MEPS data sources, the shortcomings pertaining to sample size likely preclude the use of MEPS data regardless of location availability.

- *Beneficiary Survey*
    The research team discussed, at length, the feasibility of conducting a survey of Medicaid beneficiaries in Illinois alongside the stakeholder interviews to increase the evaluation's overall context. However, because the survey would collect sensitive PHI, it was determined that the logistics of contracting with an outside service (such as Mechanical Turk or Qualtrics) to disseminate the survey would introduce many issues related to privacy, data security, and data sharing agreements between the contractors and the research team. Dissemination via the research team was also considered; however, G*Power analysis revealed that the research team would need to collect approximately 400 responses to be representative of the Illinois Medicaid beneficiary population. While the distribution of a mail survey was considered because the Illinois Electronic Data Warehouse contains beneficiary addresses, the team expected low response rates for various reasons, including the fact that no incentive would be offered. Dissemination via phone was then considered, but this survey method would consume a large portion of the research team's time without mitigating the concerns about a poor response rate and introducing further data security concerns. Thus, the research team concluded that the analytic benefits of gathering data via a survey would be outweighed by the costs.

    Furthermore, there is already a large cadre of appropriate measures (the Core Set of Health Care Quality Measures) included in the plan, meaning that the information related to healthcare quality and satisfaction captured by the member survey has been already collected by other means. This further increases the justification for not conducting a member survey given the logistical challenges it poses.

D. Methodological Limitations

The proposed evaluation has limitations. The qualitative interviews are limited in several ways, the foremost due to the cross-sectional, retrospective nature of the interviews. Because the waiver has already gone into effect, the research team plans to conduct one-time interviews. As a result, the quality of the data collected may suffer due to the passage of time if respondents struggle to remember the quality of care prior to the waiver. This uncertainty may suppress the observed or reported treatment effect. The research team also intends to conduct the interviews only within Illinois, which means the data collected cannot be set against a comparison state, somewhat dampening the power of the interview data.

Other limitations pertain to the quantitative aspects of the evaluation. In a natural experiment setting, it is difficult to know with certainty which factors of experiments lead to change. It is also unclear how much the experiment resembles the event in real life, which raises

questions about the external validity of the findings. However, the inclusion of a comparison group will largely address the limitations inherent to any time-series analysis.

There may be factors that we cannot control that affect Medicaid coverage and continuity of care. Such factors would include the local implementation of Medicaid policies and caseworkers' practices, which can affect care coordination and the monitoring of client redetermination paperwork. Records from the pretest period may not be as comprehensive as we wish, and data lags may arise that impact our ability to access the most recent Illinois Medicaid data. Moreover, the observational period spans the COVID-19 PHE, an issue we discuss in more detail in the next section.

Any inequivalence between the waiver state and comparison state/group (e.g., selection bias) prevents us from making valid causal inferences about the waiver administration and the outcome variable. Furthermore, while the team has mitigated the shortcomings of the comparison states by choosing two separate states through objective mathematical measures, there is no perfect comparison state. However, ITS is a robust approach even without a control series, meaning the results will still be strong. Finally, the research team has made allowances for the use of propensity score matching to compare outcomes at the individual level should state-level comparisons be insufficient; the limitations of propensity score matching have been acknowledged in the methods section, and the research team will select the most powerful analysis for each metric to reduce limitations and increase generalizability to the fullest extent.

Although we anticipate using the pretest/posttest method as little as possible, if at all, its use will introduce a limitation. This method uses just one data point pre- and post-intervention, ultimately limiting the conclusions that can be drawn from such a small sample. This approach also excludes time as a factor from the analysis, meaning that it cannot account for underlying trends.

The Section 1115 demonstration waived the requirement for implementing the HPE program in Illinois. However, prior to this waiver, the HPE program had not been introduced in the state. Evaluating an initiative that was never put into practice in Illinois is challenging, particularly with a quantitative approach. To address this limitation, we will conduct qualitative interviews with stakeholders to gain their perspectives and insights on the efficacy of waiving HPE.

Methodological Considerations Relating to the COVID-19 Pandemic

The COVID-19 pandemic in the United States began in approximately March 2020, whereas the demonstration of this waiver began in January 2021. The highest spike of the COVID-19 hospitalization rate in Illinois was in January 2022, followed by November 2020 (CDC, 2024). Illinois also had **higher vulnerability** than most states, with 34% of the population residing in a densely populated, high-vulnerability area, which correlated with a higher risk of infection and adverse health outcomes (Surgo Ventures, 2020). Social distancing and stay-at-home orders took effect statewide on March 21, 2020. Simultaneously, federal section 1135 waivers granted the Secretary of the Department of Health and Human Services the flexibility to temporarily modify Medicaid, and this modification played a significant role in shaping the pandemic response. In many ways, the COVID-19 pandemic has likely impacted this waiver evaluation, particularly during the initial two years of the waiver and the immediate pre-waiver period, because of the high hospitalization rate and subsequent policy changes.

Furthermore, during the pandemic and the years following, Illinois Medicaid witnessed significant fluctuations in enrollment numbers, and we expect such variations to continue. Extensive job losses and economic instability during the pandemic caused a substantial surge in Medicaid enrollments in 2020. According to a preliminary dataset released in September 2020 by the U.S. Bureau of Labor Statistics and the Illinois Department of Employment Security, all 14 of Illinois's metropolitan areas experienced a decrease in the number of nonfarm jobs over the year. Until the public health emergency concluded in May 2023, under Families First Coronavirus Response Act (FFCRA) Maintenance of Eligibility (MOE) requirements, existing Medicaid enrollees had automatic continuous coverage. The state anticipates data will reveal significant coverage losses and disruptions due to the resumption of the redetermination process. Findings with respect to the continuity of coverage, measured by the number of enrollees in continuous years, will be interpreted in light of this expectation. The section below explains the methodological considerations that will enable that interpretation.

Strategies to Consider

The initiation of the waiver demonstration in January 2021 coincided with the continued impact of the COVID-19 pandemic and PHE. Consequently, the pandemic heavily influenced period preceding the demonstration (March 2020 to December 2020, referred to in Figure 4.2 as the Pre-waiver Period 2). The two years following the waiver demonstration were also under the influence of the PHE until Illinois resumed resource tests in May 2023. Additionally, flexibilities authorized under the Disaster State Plan Amendment, effective until May 2024, included policies likely to affect the continuity of coverage, such as (a) presumptive eligibility for Modified Adjusted Gross Income (MAGI) adults and (b) frequent presumptive eligibility for children, pregnant women, and adults, and (c) self-attestation of income, incurred medical expenses, residency, disability status, insured status, and immigration or citizenship status when electronic verification was not available.

Depending on the magnitude of pandemic-induced changes, isolating the effects of the pandemic from those of the waiver demonstration may pose a challenge. We plan to employ some adjustments in our proposed analytic strategies to address this, determining if COVID-19-related effects differ across states so as to disentangle the impacts of COVID-19 from the effects of the demonstration.

Using a comparison state that experienced similar external influences related to the pandemic but did not receive the specific intervention being implemented provides a strategy for disentangling COVID-19's impact on outcome measures from the waiver's effect on those outcomes. Additionally, we aim to enhance comparability by utilizing propensity score matching to match the state's beneficiaries with the comparison groups. This approach contributes to the robustness of difference-in-differences and comparative interrupted time series designs.

To ensure our metrics are suitable for a difference-in-difference analytic approach, we will secure about two years of pre-COVID data spanning from January 2018 to February 2020. These data will capture the average difference in outcomes between the demonstration state and the comparison states before the pandemic. Consequently, the analysis will evaluate the waiver's impact based on both pre-COVID data (January 2018 – February 2020) and post-waiver data (May 2023 – December 2025), excluding periods affected by the pandemic and PHE (March 2020 to April 2023). Additionally, another model will incorporate fixed effects for each

segmented phase (Figure 4.2) and their interactions with the treatment indicator variable. This inclusion will explain how the waiver effect varies over time. Observing consistency in the waiver effect across different segmented phase will enhance the robustness of the analysis.

We also propose using a comparative interrupted time series model to discern the impact of COVID-19 and PHE continuous enrollment. Typically, this model analyzes data collected over a period during which an intervention might induce significant change. However, the ongoing disruption from March 2020 to April 2023 makes it impractical to exclude specific time frames from the analysis. Therefore, we propose assessing the impacts of COVID-19 and PHE continuous enrollment by using dummy variables for pre-waiver (2) and post-waiver (1) periods, as shown in Figure 4.2. This method provides a nuanced understanding of how these external factors, alongside the waiver's impact, affect outcomes. Separate dummy variables will be included to evaluate the distinct impact of each external factor while examining the waiver's impact.

E. Timeline

Task	Projected Dates
Evaluation Contractor Data Processing	
Determine required variables, the timeline of variables (monthly, quarterly), and the dates needed for the proposed evaluation.	August 2023
Request and receive access to Illinois Medicaid Enrollment and Claims Data.	September 2023 – February 2024
Evaluation contractor receives data and examines it for accuracy and feasibility.	March 2024
Evaluation contractor processes data – cleaning and merging received data files.	April 2024- June 2024
Qualitative Interview Data Collection	
Develop interview protocol, consent forms and recruiting materials	February 2024- July 2024
Submit qualitative interview materials for IRB study approval	July 2024- August 2024
Conduct qualitative interviews for eventual inclusion in final report.	August 2024- December 2025
Initial Data Analysis and Interim Report Writing	
Conceptualization and variable construction.	June 2024 – July 2024
Descriptive statistics for Goals #1, #2, #3, #4.	August 2024 – September 2024
Bivariate analyses & pretest/posttest for Goals #1, #2, #3, #4.	August 2024- October 2024
Draft interim evaluation report and develop interim report update to CMS.	October 2024 – November 2024
Interim Evaluation Report Due	December 2024
Accessing Comparison State Data	
Investigate state datasets and waiver status to determine a suitable comparison of state datasets.	July 2023 – September 2023

Determine required variables, number of cases, timeline, dates, and other required information to include in the request.	September 2023
Develop a security plan for data transfer and data sharing between the University of Illinois and the comparison state's data custodian.	December 2023
Submit a request and process payment to access 2018 to the most current comparison state data.	February 2024
Estimated date of receipt for comparison state dataset.	February 2025
Additional data requests for subsequent year(s) of the dataset.	February 2025
Processes data – cleaning and merging received state datasets.	March 2025 – December 2025
Evaluation Analysis	
Interrupted time series (ITS) analysis for Goals #3 and #4.	January 2026 – June 2026
Code and conduct thematic analysis of qualitative data.	January 2026 – June 2026
Propensity score matching (PSM) and/or logistic regression and/or Difference-in-differences (DID) approach for Goals #1, #3, and #4.	March 2026 – June 2026
Summarize analysis findings for the demonstration evaluation.	July 2026 – December 2026
Compile Analysis Summaries and Develop Final Summative Evaluation Report	January 2027 – May 2027
Summative Evaluation Report Due	June 2027

F. Evaluation Budget FY 2022 2027

Task	2022 actual	2023 actual	2024 estimate	2025 estimate	2026 estimate	2027 estimate
Management, Consulting, Reporting, Supervising		35,046	33,021	34,232	35,258	36,316
Data Management, Cleaning, and Analysis		21,193	43,741	116,506	120,001	123,601
Qualitative Interviews and Analysis				15,162	15,616	16,084
Graduate Assistants	15,908	43,092	79,815	60,646	62,466	64,340
Fringe Benefits (46.38%,10.35%GRA)	1,395	27,071	38,881	77,758	80,091	82,493
T-MSIS Data for Iowa and Wisconsin			96,500			76,000
NCSA Billable Data hours				15,107	15,107	15,107
Misc. Services and Telecom (see details in narrative)		1,084	6,478	10,056	10,056	10,056
Lease Charge (prorated per FTE)		2,144	10,386	17,598	17,598	17,598
Supplies (computers and monitors)			3,400	5,594	5,594	5,594
ICR 21.7% of MTDC	3,755	24,499	46,812	108,296	74,689	76,729
Total	21,058	154,129	359,034	460,955	436,476	523,918

Additional information regarding the cost of comparison State Data for Iowa and Wisconsin, in addition to the amount budgeted above. All data will be purchased at one time.

Iowa and Wisconsin (Cohort: 2,984,145)	Years	Fee Per Data-Year	Total
T-MSIS Analytic Files (TAF)*:			
DE (Demographic and Eligibility)	2018-2025	$ 4,000	$ 28,000
IP (Inpatient Hospital)	2018-2025	$ 4,000	$ 28,000
RX (Prescription Drug)	2018-2025	$ 5,000	$ 35,000
OT (Other Services)	2018-2025	$ 5,000	$ 35,000
LT (Long Term Care)	2018-2025	$ 5,500	$ 44,000
T-MSIS Bridge File	2020	$ -	$ -
Finder File Fee	-	$ -	$ 2,500
TOTAL			$172,500*

*Excluding taxes, fees, shipping, etc.

The budget request from FY 2025 through 2027 is $1,509,348. There is a 3% increase from year to year to accommodate cost-of-living and inflation adjustments over time.

Evaluation Budget Narrative

The primary cost for this project is the staff time required to design the evaluation plan, analyze the outcome data, and prepare a report. Additional expenses, as applicable, are listed below as well.

Project Management, Consultant, Supervision and Reporting

Chi-Fang Wu is a Professor in the School of Social Work at the University of Illinois Urbana-Champaign. As the Project Investigator (PI), Dr. Wu will oversee all aspects of the project, including quality control, fiscal spending, hiring and training of research assistants, leading project team meetings, managing data collection and analysis, and writing evaluation designs and reports. Dr. Wu's leadership will ensure that project administration, analysis, and reporting requirements are met for the Illinois Department of Healthcare and Family Services and the Centers for Medicare and Medicaid. **Budget request: 22% salary.**

Douglas Smith is the Director of the Center for Prevention Research and Development (CPRD) and a Professor in the School of Social Work at the University of Illinois Urbana-Champaign. He will serve as a consultant for this project. He will provide consultation on the development of the project's data collection and analytic methodologies to ensure the development and implementation of a robust evaluation plan. He will also review the evaluation design and reports. **Budget request: 5% salary.**

Crystal Reinhart is a Senior Research Scientist at CPRD and the Center's liaison for compliance with the Health Insurance Portability and Accountability Act (HIPAA). As a Project Manager for PO19, she will supervise CPRD staff, including task management, prioritization, timelines, and HIPAA compliance. She will also oversee the data management for this project on the Nightingale cluster at the National Center for Supercomputing Applications (NCSA). Finally, she will be responsible for developing and editing reports for the Illinois Department of Healthcare and Family Services and the Centers for Medicare and Medicaid. **Budget request: 15% salary.**

<u>Data Management, Cleaning, and Analysis</u>

Shahana Begum is a Senior Research Data Coordinator and serves as the CPRD senior statistician. In her capacity as a Statistical Analysis Leader, she will play a pivotal role in mentoring and coaching the project's Research Data Specialists as they conduct complex analyses of the project. Through effective leadership and a comprehensive understanding of analytical methodologies, she will enhance the team's performance and actively contribute to the overall success of the evaluation project. **Budget request: 10% salary.**

Aidan Berg is a Research Data Specialist at CPRD. As a Research Data Specialist for the project, he will perform various tasks related to the statistical analysis of the 1115 waiver. Responsibilities will include data importation, cleaning, transformation, analysis, and visualization. He will run analyses on the cleaned data using advanced statistical techniques (e.g., comparative interrupted time series analysis, difference-in-differences analysis, pretest-post-testing, and propensity score analysis) and more routine techniques such as t-tests, descriptive analysis, or crosstabulation. Furthermore, he may be required to write the results of the analysis and draw conclusions from them, writing in both a technical and accessible nature to ensure the readability of the overall evaluation. Mr. Berg's appointment to this evaluation began at .50 FTE and will be shifting to 1.0 FTE in 2025. **Budget request: 100% salary.**

Janaka Kosgolla, is an Assistant Research Scientist at the University of Illinois Urbana-Champaign who will lead the quantitative data extraction and analysis within the EDW and NCSA clusters. He will be responsible for developing SQL codes for all the planned quantitative measurements to be executed on the EDW and NCSA cluster databases. He will adopt existing methods and technical specifications and develop new ones to write SQL programs to extract the correct information from the Medicaid data stored in both databases. In addition, he will develop base codes required to run propensity score matching and any other analysis procedure we need to execute in the Linux/Unix environment of the EDW and NCSA cluster. He will develop and test an R base code that performs propensity score matching on the NCSA cluster. Dr. Kosgolla began work on this project as an RA but will transition into full-time employment with CPRD in 2025, leading to an increase in the data analysis and cleaning budget across 2025-2027. **Budget request: 75% salary.**

<u>Graduate Assistants and Qualitative Interviewer</u> – This budget item supports the two Research Assistants (50% FTE) (beginning in 2023), and one Qualitative Interviewer (25% FTE) (beginning in July 2024) to complete supporting tasks, including but not limited to assisting with data analyses, collecting qualitative data, cleaning data for project staff to fulfill data, conducting literature reviews, and writing report requests on the evaluation project. The qualitative

interviewer will be required to schedule interviews (including recruiting interviewees), conduct interviews, and collaborate with the research team to code the collected qualitative data before it is analyzed. **Budget request: two 50% RA (from 2023) and one 25% RA (from July 2024).**

Fringe Benefits are in accordance with the Negotiated Fringe Cost Rate Agreement with the Office of Naval Research. For this proposal, the Fringe Benefit Rate is calculated at 46.38% for all full-time staff (retirement 11.98%; health, life, dental 32.20%; workers' compensation 0.01%; termination 0.74%; and Medicare 1.45%). The fringe benefit rate is updated annually and approved by the Federal government near the beginning of each fiscal year. Changes in fringe benefit rates are assessed immediately when they become effective.

Comparison State Data: This budget item supports the important states' Medicaid data, such as Iowa and Wisconsin, for project staff to fulfill data and report requests on the evaluation project. Without comparison state data, robust analysis of the 1115 waiver's impact is not possible, since the only possible comparison will be to Illinois' past performance on the chosen metrics, which introduces confounding variables. Adding comparison states is an efficient way to improve the reliability of the analysis proposed by this plan, while also addressing concerns related to data quality, and the effects of the COVID-19 pandemic and PHE, since the comparison states may be used to determine if disruptions in trends can be attributed to the PHE. Furthermore, use of a comparison series is highly recommended by CMS to evaluate 1115 waiver impact.

NCSA Billable Hours include time spent uploading, securing, and managing CPRD's database on Nightingale, a HIPAA-compliant supercomputing cluster at the National Center for Supercomputing Applications. NCSA also provides limited consulting services regarding software and data management.

Materials/Supplies – The materials and supply costs include, but are not limited to, the purchase of computer equipment, including computers, monitors, docking stations, speakers, cameras, headsets, and other accessories.

Data Processing Services will be provided through CPRD's pool service account, which will be used for data entry, data cleaning, scanning and processing, data preparation and shipping, online survey development, and report creation. Data Processing Services uses Qualtrics and Teleform for survey creation. Data Processing Services also conducts test case development, quality assurance, and regression testing for online web applications. For the PO19 Evaluation project, Data Processing Services staff will assist with report generation, proofing annual reviews, and survey development. They will conduct test case development and quality assurance for the planned enhancements to the Prevention Hub application. The established data processing service rate is $47.79 per hour. The data processing expense is calculated by taking the established rate per hour multiplied by the number of hours required to meet the project deliverables.

Lease, Facilities/Administration and Other Miscellaneous

Copying will be performed on CPRD-owned copiers, which are charged to projects by the page. Black and white copies are $0.03 per copy and color copies are $0.07 per copy. CPRD creates

copies of materials from each provider being reviewed during the annual review process so that project team members can easily read, assess, review, and write the results in a report.

Annual Desktop Support (Technology Services) for CPRD is independent of the University of Illinois campus. Its Technology Services Client Support Group (TS) provides desktop support for an annual fee including standardized charges, server support, and flexible charges calculated by the established rate multiplied by the number of full-time employees (FTEs) assigned to the project team.

CPRD's Files 2 Server Support is housed at Administrative Information Technology Services (AITS), a central campus unit located within the University of Illinois. AITS will host the file server infrastructure (including, but not limited to, file server, file server maintenance, backup systems, security groups) for all grants. The annual fee is determined by AITS and charged to each grant.

Server and Storage (Technology Services) will be provided by the TS Field Consulting Team, which is located within the University of Illinois. This team will host the infrastructure (including, but not limited to, servers, server maintenance, backup systems, software, security groups) for grants that require custom web applications and/or SQL databases. The annual fee is determined by TS and charged for each custom application(s) and/or database hosting in FY24.

Field Consulting Services (Technology Services) will be provided by the Technology Services Field Consulting Team, which will provide dedicated hours to support and maintain the infrastructure (including, but not limited to, servers, server maintenance, backup systems, software, security groups, and DBA support) for grants that require custom web applications and/or SQL databases. The hours for this effort will be determined by TS and charged to each grant for each custom application(s) and/or database hosting in FY24.

Computer software costs will include the purchase of software, including but not limited to software for project staff to fulfill data and report requests on the evaluation project.

Other Costs will include but are not limited to the costs incurred by hiring staff for the evaluation, such as background checks.

Occupancy Charges will be paid to CPRD, which is located off the University of Illinois campus, where it leases its space. The lease rate includes office space and infrastructure and maintenance to support an 8,000-square-foot building. All grants and projects are charged for space. The occupancy charge is calculated by the number of FTEs assigned to the project multiplied by the established rate of $480.83 (the mean cost per FTE from each quarter of the prior year) multiplied by 12 months.

Facilities and Administration costs will be calculated under the University of Illinois Urbana-Champaign's federally negotiated indirect cost rate agreement with the Office of Naval Research. In accordance with the provisions of the Grant Accountability and Transparency Act, a federally negotiated indirect cost rate will be used for all proposal submissions. In line with the methodology provided to the University by the Governor's Office of Management and Budget's

Grant Accountability and Transparency Unit, the rate reduction methodology will use the annual University-audited financial statements to calculate rate reductions against its federally negotiated indirect cost rates. The reductions account for all State of Illinois appropriations received and payments on behalf of the University. For the purposes of this proposal only, F&A is assessed at 21.70% MTDC.

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ILLINOIS

SCHOOL OF SOCIAL WORK

1010 W. Nevada Drive, MC-082
Urbana, IL 61801-3813

July 22, 2022

To Whom It May Concern:

This letter describes my status as an Independent Evaluator for the Illinois 1115 Continuity of Care & Administrative Simplification demonstration. I am a Professor and Ph.D. Program Director of the School of Social Work at the University of Illinois Urbana-Champaign (UIUC), where I have been involved in developing the evaluation plan in collaboration with UIUC's Center for Prevention Research and Development (CPRD). Our team will perform this evaluation under contract with the Office of Medicaid Innovation (OMI) and the Illinois Department of Healthcare and Family Services (HFS). HFS has asked OMI to secure an Independent Evaluator to support the Department's Continuity of Care (CoC) 1115.

This project's aims are fourfold: to increase access to health care coverage, to provide quality care, to improve health outcomes of Medicaid beneficiaries, and to reduce administrative burdens through care coordination and continuity of care initiatives. I have the expertise, skills, and leadership experience necessary to work collaboratively with the CPRD team to achieve the project aims. I am a qualified independent evaluator with over 20 years of experience researching poverty and the impact of public benefit programs on low-income families. My academic research is multifaceted, and spans topics related to poverty, social welfare policy, the impact of welfare reform on low-income families, access to public benefits and support services for low-income families, and program evaluation. My research has advanced efforts to identify the dynamics and effects of welfare reform and to understand whether and how public and private assistance helps low-income families meet their basic needs. Using sophisticated and innovative statistical methods, my work has produced new, meaningful insights into how individual policies (e.g., welfare sanctions) and programs (e.g., Medicaid), as well as multiple program participation, contribute to family well-being. Broadly, my research examines the effectiveness and accessibility of social safety net programs, including the types and combinations of benefits that best reduce material hardships and enhance the well-being of low-income families. I have extensive experience using advanced methods to analyze complex, longitudinal, state administrative data and national, population-based data, including adjusting for selection bias.

Beyond the advanced analytic competencies required to accomplish this evaluation, I also bring a granular knowledge of specific dynamics and effects of welfare reform among vulnerable populations, such as low-income single mothers and unemployed and underemployed heads of households. For example, I have developed a conceptual approach to categorizing long-term employment and earnings trajectories among welfare recipients and low-income families. This not only provides a portable approach for scholars with adjacent concerns, it has also enhanced my knowledge of the measurement issues pertinent to this project.

ILLINOIS
School of Social Work

Throughout the years serving as principal investigator or co-investigator on several university- and state-funded grants, I have established a successful record of study administration and project management by setting and completing achievable project goals, detailed work plans, and timelines.

I have worked collaboratively with OMI and HFS on the development of the evaluation plan. Dr. Douglas Smith, Director of CPRD, also consulted on the evaluation design efforts. Dr. Smith is currently working with the UIUC National Center for Supercomputing Applications to establish a technical environment to perform all necessary data analysis for HFS in his work on the the Behavioral Health Transformation 1115 and SUPPORT Planning Grant. The infrastructure and processes he established will facilitate my completion of the CoC 1115 evaluation. The collective experience of our evaluation team (please see description of team members below) and CPRD staff will ensure a fair and impartial evaluation free of any conflicts of interest. This impartiality will be reflected in the evaluation report prepared for this project.

Our evaluation team asserts that we have no interests, direct or indirect, that would conflict in any manner or degree with the performance of our services for this project. In the performance of this evaluation, no person with any known conflict of interest will be employed. The collective experience of our evaluation team will ensure a fair and impartial evaluation free of any conflicts of interest.

Sincerely,

Chi-Fang Wu, Ph.D.
Professor and Ph.D. Program Director
School of Social Work

University of Illinois at Urbana-Champaign (UIUC)-Personnel

Chi-Fang Wu, Ph.D. (Evaluator) is a Professor and Ph.D. Program Director of the School of Social Work at the University of Illinois Urbana-Champaign. Throughout her academic career, she has studied the impact of social policy on low-income families and the accessibility of public benefit programs and support services. She has led several projects examining the types and combinations of public benefits and private assistance received by low-income families with children. Her research also examines families who are most in need of government assistance (Chen, Wu, & Zheng, 2022), and whether and how public benefits help these recipients meet their basic needs and reduce their material hardship (Wu, Eamon, & Wang, 2014; Wu et al., under review). Her observation of broad patterns in benefit participation, which indicates that benefit-eligible families face barriers to participation, motivates her research (Wu et al., 2022).

Dr. Wu's research has also generated new insights into the dynamics and measurement of unemployment and underemployment in the U.S. She developed a new conceptual approach that enables her to (a) categorize measures of unemployment and underemployment and (b) analyze longitudinal national population-based data in order to measure levels and factors associated with unemployment and underemployment. The resulting findings conclude that underemployment, but not unemployment, was associated with lower levels of self-rated health among single mothers (Wu et al., 2014), which may be explained by inequity in health care access.

Dr. Wu's more recent research addresses the ways in which receiving specific public benefits buffers the negative effects of under- or unemployment on family well-being (Wu, Eamon, & Wang, 2017; Wu et al., 2022). Her findings indicated that when employment problems increased during the Great Recession and created material hardship, receipt of public benefits also rose nationwide (Eamon & Wu, 2013). She also found that while single mothers' likelihood of experiencing unmet medical needs increased during and after the Great Recession, health care coverage drastically reduced the risk of unmet medical needs for underemployed single mothers and moderately for unemployed single mothers (Wu et al., 2017). These results highlight how public benefits (particularly Medicaid) can mitigate the negative effects of underemployment and unemployment on low-income single-mother families, corroborating the growing body of evidence supporting the expansion of health insurance programs.

Dr. Wu has authored and co-authored nearly 40 articles published or accepted in peer-reviewed journals, including prominent journals in the social work field. She has also served as the principal investigator on multiple grants. Her research has contributed valuable new information on and approaches to studying how individual policies (e.g., sanctions) and programs (e.g., Medicaid) and multiple program participation contribute to family well-being. The Illinois 1115 Continuity of Care & Administrative Simplification demonstration will continue this trajectory. Dr. Wu will allocate 0.22 effort to this project throughout the project term.

Douglas C. Smith, Ph.D. (Consultant) is a Professor of Social Work and Director of the Center for Prevention Research & Development (CPRD) at UIUC. He has prior direct practice experience (a) working in residential substance use disorder (SUD) treatment and (b) providing case management services in state-funded facilities serving individuals from low-income backgrounds. His research focuses on SUD treatment outcomes among adolescents and emerging adults (ages 18-29 years). Dr. Smith has previously received funding to complete SUD treatment evaluations from the National Institutes of Health, the Substance Abuse and Mental Health

Administration, and the U.S. Department of Justice. His nearly 70 peer-reviewed publications largely focus on substance use disorder treatment outcomes. Dr. Smith is leading the Behavioral Health Transformation 1115 Demonstration Waiver Evaluation for HFS. He will complete the evaluation of HFS's Section 1003 SUPPORT Planning Grant. Dr. Smith will allocate 0.05 effort to this project throughout the project term.

Crystal Reinhart, Ph.D. (Project Manager) is a Senior Research Scientist at the CPRD. She received her Ph.D. in Community Psychology from Wichita State University in 2010. She is currently a project manager for the Behavioral Health Transformation 1115 Demonstration Waiver Evaluation and is working on the Illinois Youth Survey project. The data resulting from the latter has contributed to several peer-reviewed publications and collaborations with researchers statewide and enhanced understandings of substance use, perceptions of substance use, and a variety of other health and safety issues among middle and high school students. Dr. Reinhart will allocate 0.15 effort to this project throughout the project term.

Shahana Begum (Statistical Analysis Leader) is a Statistical Analysis Leader at the CPRD. She works with teams that conduct project evaluations, such as targeting community-based substance abuse prevention programs and improving the effectiveness of principals and middle school teachers to accelerate middle school reform. She has worked alongside Dr. Reinhart on the Illinois Youth Survey. Ms. Begum will allocate 0.10 effort to this project throughout the project term.

Aidan Berg, MPH (Research Data Specialist/Project Coordinator) is an epidemiologist at CPRD. He works mostly on Medicaid Policy Evaluations, including the Illinois Behavioral Health Transformation Waiver, investigating the effects of the 1115 Waiver on the Medicaid population in Illinois diagnosed with SUD using a variety of time-series analytic techniques. He has also worked alongside Dr. Reinhart on SUD stigma research. Mr. Berg will allocate 1.0 effort to this project.

Assistant Research Scientist (TBA). CPRD will hire one full-time Ph.D.-level analyst to work on the project. They will allocate 0.75 effort to this project.

Jeehae Kang and Soohyun Yoon are Ph.D. students supervised by Dr. Wu. Both will serve as Research Assistants (RAs), assisting with literature reviews, data cleaning, analyses, and report writing. They will allocate 0.50 effort to this project.

Appendix B: References

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