Interim Review of the 2022 Nursing Home Payment Reforms

ILLINOIS DEPARTMENT OF HEALTHCARE AND FAMILY SERVICES

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Theresa Eagleson, MBA, Director

Andy Allison, PhD, Deputy Director

Kelly Cunningham, MA, Medicaid Director

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I. Executive Summary

This "Interim Review of the 2022 Nursing Home Payment Reform" provides a comprehensive if preliminary look at the recent nursing home payment reforms in Illinois. The report's central aim is to establish a baseline for assessing the impact of these reforms across various facets of nursing home operations, notably staffing, quality of care, financial performance, and the transition from Resource Utilization Groups (RUG) to the Patient-Driven Payment Model (PDPM).

The report provides background on the nursing home payment reforms. It highlights significant changes included in those reforms such as newly added nursing home assessments, staffing add-on payments, and the shift to PDPM, setting the stage for a comprehensive understanding of the reforms' rationale and extent. Addressing nursing facility trends and the need for reform, the report discusses the increasing demand for care, staffing challenges, and the effects of the COVID-19 pandemic, and identifies external factors influencing nursing home operations.

Section "IV. Changes in Nursing Facilities Operations and Demographics" describes demographic shifts within nursing facilities and examines the distribution of Medicaid and non-Medicaid, for-profit, and non-profit facilities. This exploration will continue in the 2025 report to the legislature and is designed to shed light on how these reforms impact various types of nursing homes differently.

In subsequent chapters, the report scrutinizes shifts in provider reimbursement and case mix during and immediately following Illinois' transition from a RUG-based reimbursement system to PDPM in July 2022. This shift signifies a modernized approach to long-term care funding, focusing more on patient needs than on the volume of services provided. With its July 2022 transition Illinois seems to have made the most progress in state adoption of PDPM. The report evaluates changes in per diem rates and resident coding under PDPM, emphasizing their influence on reimbursement models and resident care strategies. Findings indicate a much slower initial upcoding response to PDPM's adoption than was seen with the adoption of its predecessor case mix index, RUGs, in 2013-2014. The interim report also finds that high-Medicaid facilities began with the highest percentage of rehab-coded residents, pre-reform, but fell to the lowest in the span of just four post-reform quarters. Additionally, the report notes a remarkable 28% increase in Medicaid cost coverage between SFY 2022 and SFY 2023. and a significant reduction in the gap between payments per day to facilities with higher percentages of residents of color v. payments to facilities with lower percentages of residents of color.

The report investigates changes in staffing patterns and their implications for the quality of care. For example, Illinois has witnessed an 11% increase in nursing home staffing ratios, outpacing improvements in other states, with the most significant improvements seen in facilities with severe staffing issues and high Medicaid populations. The number of facilities falling below 70% of the national STRIVE staffing target fell dramatically from 154 at the start of 2022 to just 53 in the second quarter of 2023, marking a two-thirds decrease. This initial improvement comes largely due to an increase in staffing hours by CNAs that explains three-quarters of the nearly 14% increase in nurse staffing hours overall in the first five quarters following legislative adoption of the 2022 reforms. Despite these advancements, Illinois still ranks low in national staffing rankings, indicating the need for continued monitoring and analysis.

The report also analyzes health equity and quality of care, finding some evidence of growing equity in the distribution of residents of color across nursing facilities – which coincides with an as-yet unexplained general increase in the percentage of nursing facility residents across the state who are people of color. Although staffing levels are a direct indicator of the quality of nursing home services, the 2022 reforms also included a new add-on payment rewarding facilities with the highest quality outcomes. Changes in nursing home quality outcomes since implementation of the reforms have been mixed. There has been some recent improvement in the key “long-stay” composite measure published quarterly by federal CMS, but maintaining consistent quality levels, especially for short-stay residents, remains a challenge.

Nursing home financial performance and sustainability were key concerns during the pandemic and were core considerations in the payment reform process. This report proposes (for comment) two approaches to measurement of profitability and finds that -- using either methodology -- nursing facilities have consistently shown positive if not in some cases potentially excessive earnings, especially during the pandemic. As it was in HFS’ 2021 pre-reform report to the legislature, profitability was found to be highest in facilities with the highest percentage of Medicaid residents. Alongside this general finding of financial strength, this interim report finds a concurrent increase in Medicaid’s share of nursing home occupancy. To date, as Medicaid’s influence on nursing homes’ financial performance has increased, nursing homes’ financial strength has remained strong. Reinforcing this finding, the report also compares (modeled) Medicaid costs to Medicaid revenue and estimates that cost coverage for Medicaid payments to facilities with the highest percentage of Medicaid residents has risen to at least 105%.

The anticipated impacts of the 2022 reforms are manifold. The transition to PDPM and changes in per diem rates are seen as pivotal factors affecting the financial sustainability of nursing homes and potentially the quality of care provided. Staffing reforms such as wage adjustments and add-on payments were included in the watershed 2022 reform package to tackle long-standing workforce challenges, with significant implications for patient care quality. This "Interim Review of the 2022 Nursing Home Payment Reform" offers a detailed but preliminary examination of the impact of sweeping reforms in Illinois' nursing facilities. The report underscores the necessity for continuous monitoring as additional quarters of data become available, and the need for additional and in some cases more sophisticated analysis to evaluate the impact of the 2022 reforms. HFS welcomes comments and input as it works toward publication of the report to the 2025 legislature, which would include any such recommendations for needed changes in Medicaid payments to nursing homes.

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II. Introduction and Historical Context

On May 31, 2022, Governor Pritzker signed HB246 (PA 102-1035) into law, ushering in historic Medicaid nursing home payment reforms that more closely align reimbursement with resident needs and quality of care. The culmination of over two years of analysis and deliberation, the new payment methodology included a revised nursing home assessment, a shift to the federal Patient Driven Payment Model (PDPM) to reflect residents' care needs more accurately, and new funding tied to staffing and quality measures. The legislative changes were intended to improve transparency, accountability, and health equity, particularly for nursing facilities serving higher percentages of Medicaid residents. This report reviews the basis for the payment reforms, the new reimbursement methodologies, and undertakes a preliminary and interim analysis on results of the reform to date.

Background

Prior to the 2022 reform, the Illinois Department of Healthcare and Family Services (HFS) allocated over $2.5 billion to nursing facility care for approximately 45,000 Medicaid beneficiaries, who make up nearly 70% of all nursing facility residents in the state. Starting in State Fiscal Year (SFY) 2023 and with new financial commitments included in PA 102-1035, expenditures have risen to over $3 billion. The legislation and the performance-related infusion of new funding was motivated by the fact that Illinois has long ranked at or near the bottom nationwide in both staffing and quality metrics, with substantial accompanying inequity in the distribution of care and services to low-income and minority nursing facility residents. This low rank persisted despite significant prior financial commitments to Illinois nursing facilities. Between SFYs 2014 and 2022, the state increased annual reimbursements to nursing facilities by $330 million, exceeding inflation and including $160 million specifically earmarked for staffing, yet no measurable improvements were observed.[1] The COVID-19 pandemic further exacerbated these issues, revealing the acute risks faced by nursing facility residents in understaffed or overcrowded facilities. This is particularly true for residents of color, who are more likely to reside in such facilities. An HFS Report to the Legislature dated September 30, 2021, found that Wave 1 COVID mortality rates for residents of color in Medicaid nursing facility were at least 40% higher than would be expected based on Wave 1 COVID-19 mortality rates among White residents.[2]

In 2018, the Centers for Medicare and Medicaid Services (CMS) finalized the new PDPM case mix index (CMI) to replace the Resource Utilization Grouper (RUG) CMI used to calculate Medicare nursing facility payment rates. The PDPM system was implemented for Medicare reimbursement effective October 1, 2020. Anticipating this shift to PDPM at the federal level[3], and recognizing the continued serious staffing and quality issues in the industry, the Illinois General Assembly passed SB 1696 (PA 101-0348) in 2019.[4] The Act required HFS to convene a cross-industry technical advisory group to discuss changes needed to move Medicaid to the PDPM model, as well as to investigate other payment reforms that would address staffing, quality, and cost coverage for Illinois nursing facilities. In August 2020, HFS convened the

[1] HFS' "A Comprehensive Review of Nursing Home Payment with Recommendations for Reform", September 2021, page 8.

[2] HFS' "A Comprehensive Review of Nursing Home Payment with Recommendations for Reform", September 2021, page 4.

[3] CMS stopped collecting the data necessary to sustain the RUG methodology on October 1, 2023.

[4] https://www.ilga.gov/legislation/publicacts/101/PDF/101-0348.pdf

advisory group with representation from all stakeholders and the four legislative caucuses, and laid out the following objectives:

> *"HFS proposes a structured and transparent approach to develop, deliberate, adopt and implement nursing home payments to achieve improved outcomes and increased accountability with an emphasis on patient-centered care. HFS believes the rate mechanism, funding model, assessment, quality metrics, and staffing requirements can and should be updated in conjunction with any new or additional appropriated funding. Further, additional federal funding should be captured to improve these areas through an increase in the current nursing home bed tax."*

The advisory group met more than 25 times over the course of 18 months and spent considerable time reviewing detailed analyses and different policy considerations for payment reform. The collaborative and data-driven process covered issues such as the shift to the PDPM case mix indices, staffing levels, quality and distributional equity, physical infrastructure, ownership and market forces, and other key long-term care policy considerations. Participants were encouraged to share ideas and concerns, and all analyses and meeting notes were made publicly available.[5] While consensus among all stakeholders was ultimately not achieved, discussions were open, accommodations made, and opposing views recorded.

Legislation was introduced and deliberated in the 2021 session resulting in a legislative request for study and recommendations. HFS issued a report in September 2021 that included a comprehensive review of nursing facility payment across a variety of factors with associated recommendations for reform.[6] The report focused on the direct care – or nursing -- portion[7] of nursing facility reimbursement, which had grown over time to represent 60% of all payments and is the component most responsible for staffing and quality of care. Key findings of the report included:

1. **Nursing Home Assessment**. Illinois remained far below federal limits on the level of taxation on its nursing facilities, which presented an opportunity to generate federal revenue to support Medicaid funding and payment increases.
2. **RUG vs PDPM**. Following the introduction of the RUG case mix system in Illinois in 2014, there was an approximately 35% increase in facility-reported resident care need, much of that believed to be the result of sustained up-coding and misallocation of state Medicaid payments to rehabilitation services covered by Medicare. More than one-quarter (roughly $450M) of Medicaid's $1.75B annual direct care payments to nursing facilities were the result of increases in facility-reported resident care needs in the seven years since the RUG-based rate methodology was implemented. According to the 2021 HFS report, nearly one-third (30%) of Illinois Medicaid nursing facility residents would be reclassified under the PDPM system (vs RUG) due solely to the absence of rehab groups under PDPM, a strong indication of over-coding for Medicare-covered rehab

[5] https://hfs.illinois.gov/nursinghomeupdate.html

[6] https://hfs.illinois.gov/content/dam/soi/en/web/hfs/sitecollectiondocuments/hfscomprehensivereviewofnursinghomepaymentwithrecommendationsforreform.pdf

[7] The Direct Care component of the rate covers costs associated with direct care, nursing, and other group care related health and treatment services. The rate includes payment for assisting residents in meeting basic functional and special health needs and for rehabilitative and restorative nursing care, as well as incentive payments for staffing. The other rate components are support services (31%) and capital (9%).

services in current Medicaid billing and illustrating one of the advantages of moving to PDPM.

3. **Staffing.** Illinois consistently ranked last in the nation with regard to nursing facility staffing, as measured against the national Staff Time and Resource Intensity Verification (STRIVE) staffing target levels. Even more alarming is that Illinois accounted for 47 of the bottom 100 facilities in the country (as measured by nurse staffing performance vs the STRIVE target staffing level). Further, the higher the percentage of Medicaid residents in a facility, the greater the likelihood the facility was staffed below 92% of the STRIVE target level (HFS' approximation of Illinois' minimum staffing level).[8] HFS observed a tight and inverse relationship between rehab coding of residents on the one hand and both Medicaid utilization and STRIVE staffing levels on the other, i.e., facilities coding more of their residents into a rehab case mix group were more likely to be understaffed, and this relationship was strongest at the highest level of Medicaid utilization. This relationship highlighted a specific mechanism whereby facilities could maximize profits by keeping staffing costs down and coding up to maximize reimbursements. Finally, previous Illinois Medicaid rate increases that were intended for, but not directly tied to, improved staffing had delivered inconsistent and very modest results.

4. **Certified Nurse Assistant (CNA) Tenure and Shortages**. Illinois' historical nurse staffing shortfall was found to be driven by *non*-RN staffing since the state ranked above the national average for RN staffing and significantly below that average for CNAs. Given that CNAs represent close to 60% of facility nurse staffing, they are a key lever for improving staffing levels, particularly for high-utilizing Medicaid nursing facilities where staffing levels are lowest. However, it is a physically demanding entry level job, and there was widespread belief in the industry that CNAs had high rates of attrition and turnover[9] Training and hiring of CNAs is a constant need and there is substantial (and costly) competition among facilities and with other occupations (e.g., in the service industry) for a limited pool of CNAs. Given its outsized role as a purchaser of nursing facility services, HFS observed that it was capable of leveraging change across the industry and, in the midst of an historic industry-wide labor crisis, *should* play a leading role in supporting reforms to increase the number and retention rates of CNAs.

5. **Quality of Care.** In September of 2021, Illinois ranked in the bottom 20 states for two-thirds of the federally published COMPARE website's 22 quality measures. It ranked in the bottom ten states for 40% of the measures and last for 14% of them. While some states have implemented payment incentives directly tied to quality improvement, Illinois had only two unfunded quality incentives that were defined in rule to encourage staff retention and staff-resident continuity in care.

6. **Health Equity.** Racial and ethnic minorities were not evenly distributed across Illinois nursing facilities, with 16% of facilities (n=110) having no residents of color and 14% (n=92) having over 50%. Of note, residents of color were nearly twice as likely to reside in high-Medicaid, understaffed facilities than White residents (69% vs 37%). They were also more likely to reside in room-crowded facilities, with 62% in facilities with some level of room crowding compared to 24% for White residents. Finally, not only did more than half of residents of color reside in nursing facilities that were <u>both</u> understaffed and room-crowded[10], but they were also nearly three times as likely as White residents to

[8] Illinois Administrative Code, Title 77 Public Health, Long-Term Care Facilities, §§300.1230

[9] https://www.healthaffairs.org/doi/10.1377/hlthaff.2020.00957

[10] Defined as a facility with at least some residents crowded three (or more) to a room.

reside in such facilities. HFS' 2021 report documented the accelerated spread of COVID in such facilities.

7. **Nursing Facility Ownership.** The vast majority (80%) of Illinois nursing facilities were for-profit facilities and nearly half of those facilities were understaffed. The 2021 report found that all of Illinois' low-staffed nursing facilities were private, for-profit facilities. This, despite the fact that increases in Medicaid reimbursement significantly exceeded the growth in the cost of owning and operating a nursing facility over 16 years, even among facilities with the highest percentage of Medicaid residents. Owners of for-profit facilities were found to be generally passive investors, holding minority shares and keeping them for less than a decade. This type of ownership correlated with nursing facilities that were more likely to exhibit over-coding, understaffing, room-crowding – and higher profits.

The findings above formed the basis for a comprehensive set of payment reform recommendations included in the 2021 report that were incorporated into legislation that was debated, negotiated, and ultimately passed by the General Assembly in April 2022 and signed into law as PA 102-1035.[11] The payment reforms were implemented with an effective of July 1, 2022.

Nursing Home Payment Reforms (PA 102-1035)

The passage of comprehensive nursing home payment reform, while a significant policy achievement, is ultimately about improving the care of nursing facility residents. To that end, PA 102-1035 was intended to achieve some key goals that directly impact the lives of Medicaid customers receiving care in Illinois nursing facilities, including:

- Increasing nursing facility funding to account for rising labor costs,
- Tying funding to nursing facility performance, including both staffing and quality,
- Redistributing funds according to a more accurate measure of resident care needs (PDPM),
- Eliminating the current incentive for facilities to code higher levels of care needs than their nurse staffing levels indicate,
- Reducing inequities in staffing and quality among the state's low-income, Medicaid and racial and ethnic minority nursing facility populations,
- Providing a viable path towards improvement for Illinois' lowest-performing facilities, and
- Enhancing reporting requirements to achieve full transparency into individual-level ownership of nursing facilities.

The reform package included a new nursing home assessment, a transition to the PDPM case mix system, substantial staffing and quality incentives and other rate increases. Throughout the remainder of this report, this legislative package will be referred to as the "2022 reform."

New Nursing Home Assessment

The 2022 reform streamlined and increased the nursing home bed tax from a two-pronged tax comprised of $6.07 per occupied bed day plus $1.50 per licensed bed to a single tax with a variable rate based on Medicaid resident days. The reform package resulted in an increase of the state's taxing authority to (very nearly) the Federal maximum of 6% of total revenue. The

[11] https://ilga.gov/legislation/publicacts/102/PDF/102-1035.pdf

new tax rate effective July 1, 2022, runs from a low of $10.67 for homes with 0-5,000 annual Medicaid bed days, to a high of $22.40 for homes with 15,001-35,000 annual Medicaid bed days. The assessment was projected to inject approximately $208 million in additional revenue for nursing facility reimbursement in SFY 2023 to help fund the staffing and quality initiatives outlined below. HFS estimated that the combination of new and redirected payments with the streamlined assessment would improve cost coverage for facilities at every level of Medicaid utilization, but that the highest Medicaid facilities would gain the most. Section "VII. Shifts in Cost Coverage" of this report reviews cost coverage in recent years, including SFY 2023.

Transition to PDPM

The legislation stipulated a transition to the PDPM case mix methodology beginning in SFY 2023, to be implemented in a gradual fashion over the course of five quarters. For the quarter starting on July 1, 2022, each nursing facility's rate was calculated using the higher of either the PDPM or a blended PDPM/RUG case mix rate. For successive quarters the blended rate was progressively shifted to a full PDPM rate according to the schedule in the chart below. Individual facility rates were calculated based on either the blended rate (below) or 100% PDPM, whichever was greater. According to this schedule, by the quarter starting October 1, 2023, rates were fully transitioned to the PDPM system. Table 1 shows the shift to PDPM by quarter start date.

Table 1. Shift from RUG to PDPM by Quarter Start Date

Quarter Start Date	RUG %	PDPM %
July 1, 2022	100%	0%
October 1, 2022	80%	20%
January 1, 2023	60%	40%
April 1, 2023	40%	60%
July 1, 2023	20%	80%
October 1, 2023	0%	100%

The transition to PDPM was intended to improve payment accuracy and appropriateness by shifting case mix (and payment) away from rehabilitation services (which are most often paid by Medicare rather than Medicaid) toward true resident need. The intent was to direct Medicaid base payments for nursing care to facilities in proportion to the documented need for Medicaid-financed care in that facility. Moving to PDPM was predicted to reduce overall variation in payment rates across facilities by addressing the distorted CMI and rate inflation found in the RUG system. Figure 1 below, reprinted from the 2021 report to the legislature, shows the predicted shift away from rehabilitation services using PDPM.

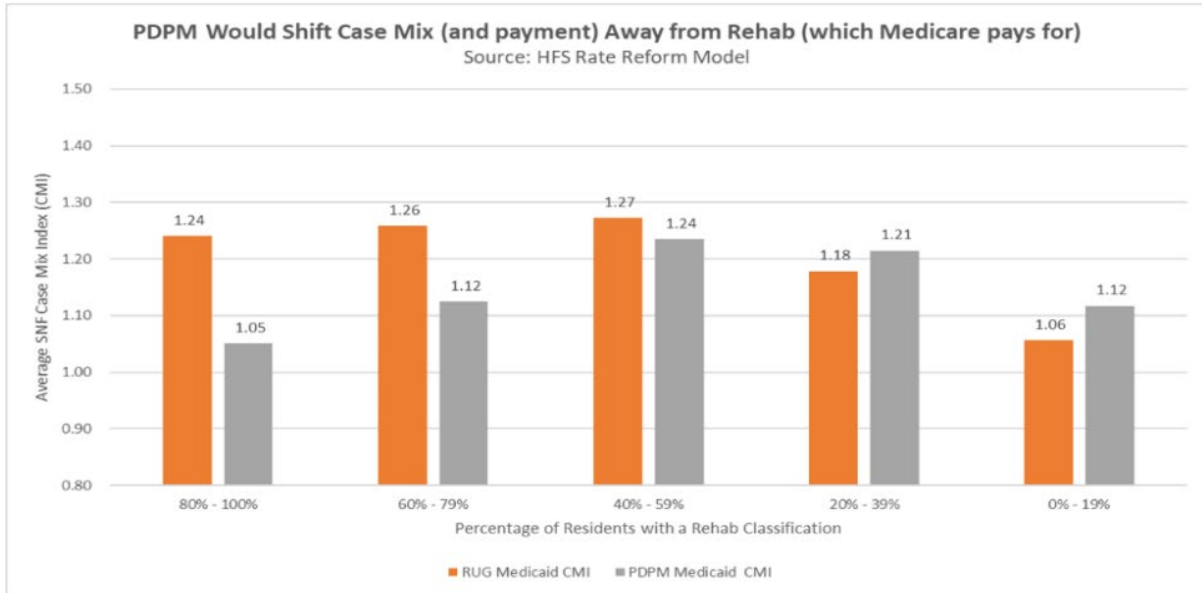

Figure 1. Shift Away from Rehabilitation Services Using PDPM[12]

Staffing Add-On Payments

One of the most important goals of the 2022 reform was to directly link rates to improved staffing levels. Previous rate increases that were intended to support staffing improvement, but were not tied directly to it, did not have any notable impact on staffing levels. As mentioned, staffing levels in Illinois nursing facilities ranked consistently as the lowest in the nation, and with facilities having the highest percentage of residents of color showing the lowest levels. As a result, the reform legislation explicitly tied reimbursement to staffing levels. A new add-on payment is now included in the rate calculation based on a facility's STRIVE staffing level, and ranges from $9 for facilities at 70% of the STRIVE target to a high of $38.68 for facilities with staffing of at 125% of the STRIVE target. The add-on is intended to reward facilities with sufficient and sustained levels of staffing, while still providing support and incentive for lower staffed facilities to invest in new staff. This incentive accounted for approximately half of the 2022 reform package and may now constitute the largest nursing facility staffing-related incentive in the country, inclusive of the Medicare program (excluding cost reimbursement schemes). A transition period was incorporated guaranteeing an add-on from July through December 2022 equal to no less than the amount earned for staffing at 85% of the STRIVE target (i.e., $18.59 per resident day) – or higher if staffing levels were above 85%.

CNA Staffing, Wages, and Retention

In the ongoing effort to enhance the quality of care in nursing facilities across Illinois, the state introduced a directed payment system specifically targeting increased wages for CNAs. Historically, CNAs have played a pivotal role in the day-to-day care of nursing facility residents, often serving as the primary caregivers and the frontline of patient interaction. However, despite their critical role, their compensation had not reflected the importance and demands of their work. Recognizing this discrepancy, HFS' 2021 report recommended a Medicaid-subsidized

[12] HFS' "A Comprehensive Review of Nursing Home Payment with Recommendations for Reform", September 2021, page 18.

experience and promotion pay scale incentive program for CNAs. This directed payment system was set to roll out according to the timeline in Figure 2 and was designed to address several key challenges that have plagued the nursing facility industry for years.

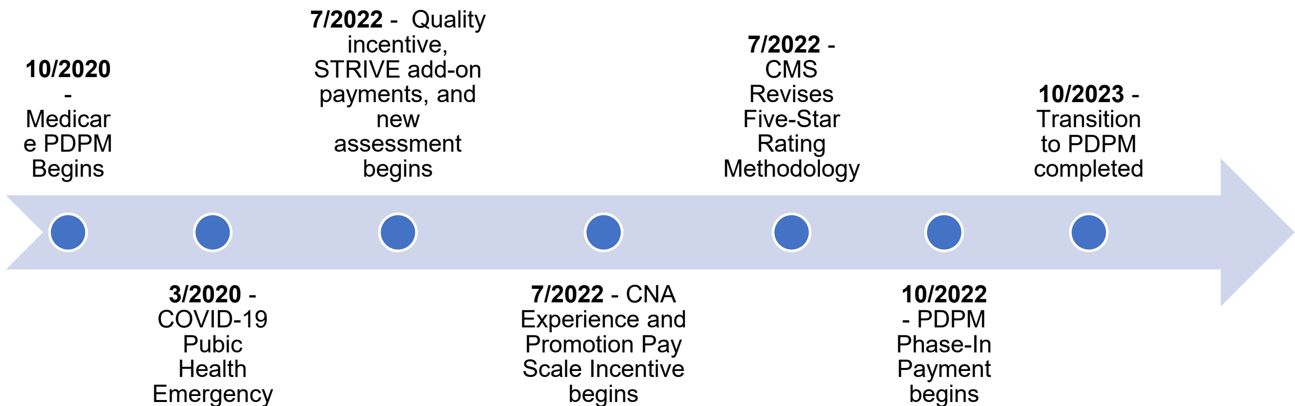

Figure 2. Timeline of 2022 Reform[13]

The intended impact of the CNA experience and promotion pay scale incentive program was multifaceted. During the pandemic, the CNA workforce shortage was often associated with high turnover and short CNA tenures and was thus perceived to be the result of a shortage of training programs and the need to increase the number of CNAs entering the workforce. Pandemic-era recruitment strategies were punctuated with well-advertised and sometimes very large signing bonuses. However, given the limited number of training slots available HFS calculated that the vast majority of working CNAs must have had at least one year of experience. In addition, available evidence suggested that CNA pay scales were flat, with *average* pay just above minimum wage. To protect the remaining CNA workforce and begin to address the shortage thus required a strategy focused on those CNAs who had left, or might leave, the profession, more so than strategies focused (solely) on those who might enter it.

By enhancing the compensation of experienced CNAs and allowing the market to determine the overall level of pay (e.g., starting pay), the state aimed to significantly reduce the high turnover rates that were believed to characterize the industry. During the pandemic as the demand for CNA staffing gradually returned and the number of practicing CNAs went down, a common narrative among owners was the flight of employed CNAs to temporary employment agencies where they could receive higher wages, but with no promise that these higher wages would be maintained.

The CNA pay scale subsidies were intended to play a crucial role in recasting the economic profile of employed CNAs going forward, using Medicaid's buying power to coordinate permanent wage increases at a more sustainable level of remuneration across the nursing facility industry. The minimum pay scale required for nursing facilities to receive this subsidy

[13]*In July 2022, CMS implemented changes to the Five-Star Rating Methodology which had a negative impact on quality scores across the nation. The result of this change in methodology resulted in a large number of Five-Star facilities dropping to Four-Stars as they did not achieve a Five-Star rating in staffing. This impact is described in the Quality section below.*

rewards long-serving CNAs the most and in amounts that meaningfully improve these critical workers' economic status. By making the profession itself more financially attractive, the hope was to expand the pool of available CNAs by retaining existing CNAs and attracting new entrants to the field based on their expectation of future pay.

Quality of Care

In addition to improving the quality of care by stabilizing and improving the staffing and tenure of CNAs, the state recognized the need to provide a direct financial reward for high quality nursing facility care. Beginning in July 2022, the state established a $70M quality pool and implemented a directed payment system specifically tied to the quality of care within nursing facilities. Each nursing facility is assigned a weighted quality score calculated using CMS' composite long-term stay Star quality measure. Selection of the long-stay metric v. other CMS metrics reflected Medicaid's dominant role (vs. Medicare and private/self-funded) in financing extended nursing facility stays. Quarterly bonus payments are made based on long-stay Star scores using proportional values adopted in the 2022 reform legislation. This competitive mechanism was designed to incentivize facilities to prioritize and invest in measures that directly enhance the quality of care.

Interim Report on 2022 Reforms

This interim report outlines changes in nursing facility reimbursement and operations since the reform took effect on July 1, 2022. These changes are presented both in aggregate across all nursing facilities and broken down by various categories, including ownership type, Medicaid utilization, the percentage of residents of color, and facility size (as determined by the number of beds). Additionally, the report compares Medicaid payments to an estimated cost of care for Medicaid residents in nursing facilities. It also examines shifts in nursing facility operations in response to the 2022 reform, specifically focusing on staffing changes and variations in the quality of care provided.

The 2022 reform measures were comprehensive, and it is still relatively early in the implementation phase. Measurement of changes in nursing facility choices and performance are limited in this report due to the short amount of time nursing facilities have had to adjust to the payment reform and the lag associated with collecting and analyzing performance data covering this abbreviated time period. Future reports and independent research will offer a more definitive assessment of the impact of these significant reforms.

Illinois data analyzed for this report include the following:

- Medicaid claims data from July 1, 2019 through June 30, 2023
- Nursing facility cost reports for fiscal year ends between 2017 and 2022
- Payroll Based Journal (PBJ) data from first quarter of 2018 through third quarter of 2023
- Minimum Data Set (MDS) records from July 1, 2019 through June 30, 2023
- Nursing facility Medicaid rate spreadsheets from July 1, 2019 through July 1, 2023

Limitations of the Report

This report faces several limitations related to data availability, collection methodologies, and analytical capabilities. The data used in this study come from multiple sources, each with its

own set of quality standards and collection protocols. For example, the Minimum Data Set (MDS) consists of surveys completed by healthcare providers (i.e., nursing facility staff) rather than the residents themselves, and in some cases, this may result in differences between how a resident or staff nurse might report characteristics such as race and ethnicity. Cost reports, submitted by the facilities themselves, adhere to minimum data requirements set by HFS, but these values are not formally audited for accuracy. Medical claims, eligibility, and provider data were extracted from the Illinois Medicaid Management Information System (MMIS). This data is used for payment and is potentially subject to audit by multiple oversight agencies, both federal and state.

In addition, there are time limitations of these data as some datasets are updated yearly while others are updated quarterly. Some data sources include information generated as recently as June 2023, while others (like daily resident census data) may only have complete data through 2021. As legislative reforms were implemented in the third quarter of calendar year 2022, limited data points were available to determine how these reforms have impacted measures of interest, including calculating facility costs, and therefore interpretation will be preliminary, and the available time windows vary by source.

It is also important to recognize that legislative changes in Illinois have not occurred in isolation. Concurrent national changes, such as the recalibration of Star quality ratings by CMS in the second quarter of calendar year 2022 (described in "Profits and Financial Performance of Nursing Facilities"), can confound the interpretation of local trends. This nationwide shift led to a decline in Star quality ratings nationally, which could be mistakenly attributed to Illinois' legislative reforms. Additionally, the timeframe of the data used in this analysis includes the period in which the COVID-19 Public Health Emergency (PHE) was ongoing. During this time, CMS first suspended the use of Health Inspection and Quality Measure ratings, then subsequently, resumed using the measures in January of 2021, potentially impacting the trends observed. The report is thus limited in its ability to account for all confounding variables when assessing the impact of state policy and payment changes on nursing facility operations over time.

Additional limitations arise from various policy and industry trends that the report does not fully incorporate. This includes the uncertain impact of the initiation and subsequent cessation of COVID-19 relief funds, which have notably influenced the financial health of nursing facilities yet falls outside the purview of this analysis. Likewise, national shifts in healthcare provider retention and recruitment may also affect the studied measures. It is important to note that limitations and other concerns will be further identified and discussed in the methodology sections throughout the document.

III. Nursing Facility Trends and the Context for Reform

Increasing Demand and Cost for Care

Without substantial change in public policy, funding, and/or societal expectations, the demand for long-term care (LTC), including nursing facilities, will likely increase as the population ages. Nationally, the population of adults 65 and older is expected to increase to 94.7 million by 2060.[14] Advances in technology and medical care may allow people to live longer and more independently, which could delay and/or further increase the demand for LTC. This potential increase in demand would place an additional strain on the industry, while at the same time providing growth opportunities for community based LTC providers such as hospice and home healthcare.

LTC can be extremely expensive and Medicare coverage can be limited. As a result, Medicaid plays a key role in the access and affordability of LTC. In 2020, Medicaid paid 54% of the over $400 billion spent on LTC across the nation.[15] As inflation rises, staff wages increase, and other economic factors continue to change, the cost of care is expected to continue to grow.

Staffing

Across the entire spectrum of long-term care, including nursing facilities, providers report a staffing shortage. This shortage could be the result of a multitude of factors including low wages, high turnover rates, the demanding nature of the work, as well as broader demographic trends such as a decline in the worker/retiree ratio.[16] There is anecdotal evidence that some of the methods LTC facilities used to retain staff may have inadvertently contributed to the staffing shortages. For example, prior to the PHE many nursing facilities paid at or slightly above minimum wage for CNAs, and as a result many CNAs worked at multiple facilities[17], sometimes working back-to-back shifts for different facilities.[18] During the height of the PHE, many nursing facilities were forced to pay significantly higher wages and it is believed that some CNAs who previously worked multiple jobs were able to quit the lower paying job while maintaining the same take home pay, thus creating vacancies at other facilities.

States have implemented a variety of measures to address the staffing shortage such as changes in staffing requirements, wage increases or bonuses (mostly during the pandemic), and updates to staff training requirements. Many of these measures were adopted by states on a temporary basis during the PHE while a few states have adopted permanent changes. Table 2 shows changes made by states since the onset of the PHE. The wage increases summarized in the table were mainly increases in minimum wages (e.g., to at least $15/hour). This report documents improvements in average wage rates apart from such mandated minimums, and anecdotal evidence suggested that by the time of the 2022 reforms the average starting wage for CNAs in Illinois nursing facilities had already risen meaningfully above $15/hour. Rather than focusing on minimum or starting wages, Illinois' approach in the 2022 reform was to leave minimum (or starting) wages to the facilities and market pressures and instead to leverage the

[14] https://acl.gov/sites/default/files/Profile%20of%20OA/2020ProfileOlderAmericans_RevisedFinal.pdf
[15] https://www.kff.org/medicaid/issue-brief/10-things-about-long-term-services-and-supports-ltss/
[16] https://jamanetwork.com/journals/jama-health-forum/fullarticle/2794538
[17] https://pubmed.ncbi.nlm.nih.gov/33213282/
[18] https://aspe.hhs.gov/reports/covid-19-intensifies-nursing-home-workforce-challenges-0

attachment of a substantial experience and promotional pay scale to such minimums, with the goal of raising average wages for employed CNAs far above pre-pandemic levels.

Table 2. Changes Made by States During and After the PHE

Measure	State's Adoption of Measure[19]
Staffing Requirements	• 5 states increased minimum staffing requirements • 2 states restructured how staffing hours are allocated • 2 states temporarily decreased minimum staffing requirements
Staff Wages	• 4 states, including Illinois, increased nursing facility staff wages through law or regulation • 3 states adopted temporary wage increases, including bonuses.
Staff Training Requirements	• 3 states updated staff training requirements. • 8 states adopted temporary changes to staff training: – Lowered training hour requirements – Waived training requirements – Suspension of additional on-the-job training requirements

Federal law requires all nursing facilities to have enough staff to safely care for residents, but this requirement is not accompanied by a specific numeric minimum. Current federal regulations require nursing facilities to provide licensed nursing services 24 hours a day and a registered nurse on staff for at least eight consecutive hours a day, seven days a week. In September 2023, CMS released a proposed rule[20] to establish national minimum nurse staffing standards that would define and enforce staffing levels. The proposed rule, which impacts Medicare and Medicaid-certified nursing facilities would require nursing facilities to provide residents with a minimum of 0.55 hours of care per resident per day from a registered nurse, and 2.45 hours of care per resident per day from a nurse aide. In 2022, Medicaid paid for approximately 67.76% of all nursing facility days in Illinois, a 12.78% increase since 2020.[21] In addition, the proposed rule would require facilities to have an RN on staff 24 hours a day, 7 days per week.[22] In addition, CMS is seeking comment on an alternative total nurse staffing standard of 3.48 hours per resident day, to include hours contributed by RNs, LPNs, and CNAs. This minimum exceeds the current standards in almost every state, with fewer than one in five nursing facilities being able to meet the proposed rule. The state of Illinois currently requires 3.8 hours of nursing and personal care each day for a resident needing skilled care and 2.5 hours of nursing and personal care each day for a resident needing intermediate care (Ill. Admin. Code tit. 77, § 300.1230 – Direct Care Staffing), although penalties associated with these minimums have not yet been levied.

[19] https://www.kff.org/medicaid/issue-brief/state-actions-to-address-nursing-home-staffing-during-covid-19/

[20] https://www.cms.gov/newsroom/fact-sheets/medicare-and-medicaid-programs-minimum-staffing-standards-long-term-care-facilities-and-medicaid

[21] Calculated using Illinois nursing facility Cost Reports

[22] https://www.kff.org/medicaid/issue-brief/what-share-of-nursing-facilities-might-meet-proposed-new-requirements-for-nursing-staff-hours/

Quality

Star Ratings

At the onset of the Public Health Emergency (PHE), CMS halted the inclusion of Health Inspections and Quality Measures in calculating the CMS Overall Five-Star Rating System.[23] In January 2021, CMS resumed incorporating these measures into the calculation of a facility's Five-Star Quality rating. The impact of these changes is clear in both the national data and the Illinois-specific data, as detailed in Chapter IX, "Changes in Quality of Care." These changes seemingly led to an inflation of scores during the pandemic. When CMS resumed using these measures in the Overall Five-Star Rating in January 2021, there was a noticeable national decline in scores. Moreover, in July 2022, CMS further modified the methodology for calculating the CMS Five-Star ratings and the staffing score, in essence making it impossible for a facility to get Five-Stars overall unless it also has a Five-Star rating in staffing. This revision affected many nursing facilities' ratings, both positively and negatively. The staffing rating now incorporates the following measures:

- Case-mix adjusted RN hours per resident per day,
- Case-mix adjusted total nurse (RN, LPN, and CNA) hours per resident per day,
- Total nurse hours per resident per day on the weekend,
- Total nurse staff turnover within a given year,
- RN turnover within a given year, and
- Number of nursing facility administrators who have left within a given year.[24]

The goal of the revised methodology was to increase transparency in improving nursing facility quality as there is a direct link between staffing levels and staff turnover and the quality of care and outcomes of nursing facility residents. As a result, the new methodology uses the staffing levels of facilities with high performance on quality measures related to hospitalizations to set the five-star staffing rating threshold. Thus, those facilities that do not meet the staffing levels of those identified high performers will be assigned one to four stars. In addition, CMS will no longer add one star to the overall rating of facilities that have a four-star staffing rating. Only those with a five-star staffing rating will see an increase in their overall star rating.

State Specific Initiatives

In an effort to elevate the quality of long-term care, various states have initiated targeted programs that tie reimbursement rates to performance metrics. These initiatives aim to incentivize nursing facilities to improve care, enhance patient satisfaction, and ultimately, better the lives of residents. The quality incentive adopted and implemented by Illinois in 2022 is comparatively large. By way of example, described below are two representative state-specific quality initiatives: Tennessee's Quality Improvement in Long Term Services and Supports Initiative (QuILTSS) and Florida's Quality Incentive Payment program. Both programs employ a range of quality measures, from clinical performance to staffing competency, to gauge the effectiveness of nursing facilities. Examining these initiatives can provide insights into how

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[23] https://www.cms.gov/files/document/qso-21-06-nh.pdf

[24] https://www.cms.gov/medicare/provider-enrollment-and-certification/certificationandcomplianc/downloads/usersguide.pdf

performance-based reimbursement can serve as a catalyst for quality improvement in long-term care settings.

Tennessee's Quality Improvement in Long Term Services and Supports Initiative (QuILTSS)
Tennessee's Quality Improvement in Long Term Services and Supports Initiative (QuILTSS) for nursing facilities serving TennCare members initially allocates 4% of nursing facility payments, or $40 million, based on performance in key quality measures, with an annual increase in this allocation until it reaches 10%, focusing on areas like satisfaction, culture change, staffing competency, and clinical performance, developed with stakeholder input.[25]

Florida Quality Incentive Payment
The state of Florida implemented quality incentive payments for nursing facilities services. The quality incentive payment utilities a combination of measures in order to most accurately identify and reward nursing facilities providing the highest levels of care. The quality measures include:

- **Process Measures** – Flu vaccine, antipsychotic medication, and restraint
- **Outcome Measures** – Urinary tract infections, pressure ulcers, falls, incontinence, and decline in activities of daily living
- **Structural Measures** – Direct care staffing and social work and activity staff
- **Credentialing Measures** – CMS overall 5-Star, Florida gold seal, The Joint Commission accreditation, and American Health Care Association National Quality Award.

Providers are awarded points across the measures on an annual basis and then points are added together to generate an overall score. Providers must meet a minimum threshold to be eligible for a payment. Payments are then determined using a payment-per-point system, based on total funds available in the quality incentive program payment pool.[26]

Value-Based Payments

Value-Based Payments (VBP) are payments made to providers based on identified outcomes and quality measures rather than the volume or amount of services used to obtain those outcomes. These payments can be in addition to traditional fee-for-service payments or an add-on payment to a fee-for-service payment. While VBP programs have the potential to increase quality, improve outcomes, and lead to more efficient use of funds, poorly designed programs can be ineffective and, in some instances, detrimental to care.

In September 2020, CMS issued a State Medicaid Directors letter encouraging the adoption of VBP as part of their Medicaid programs. As of 2022, 24 states had a nursing facility VBP program of one kind or another. States use a variety of approaches to VBP programs with a range of 1 to 37 measures used to assess performance.[27] These programs are funded through a mix of state and federal funds as well as provider tax and carve outs from existing funds. To our knowledge, Illinois' 2022 reforms would rank at or near the top of this list in both their linkage of payment to quality, staffing levels and CNA wages and in the resulting share of total Medicaid payments to nursing homes they comprise.

[25] https://publications.tnsosfiles.com/rules/1200/1200-13/1200-13-02.20210428.pdf
[26] https://ahca.myflorida.com/medicaid/medicaid-finance-and-analytics/medicaid-program-finance/nursing-home-and-audit-services/nursing-home-prospective-payment-system
[27] CHPE-Report-A Review of NH Medicaid VBP Programs 02.23.2022.pdf (ahcancal.org)

Shift to PDPM

The landscape of nursing facility care in the U.S. has undergone significant transformation in recent years, influenced by both policy shifts and external challenges and most notably the COVID-19 pandemic. As states grapple with the dual pressures of an aging population and evolving clinical needs, there has been a concerted push at the national level to reevaluate and refine payment methodologies and care practices, which resulted in Medicare's adoption of the Patient Driven Payment Model (PDPM) in October 2020. This move was driven by a range of considerations aimed at improving the quality of care, enhancing efficiency, and ensuring fiscal responsibility. The shift to PDPM was also in line with broader industry trends and regulatory requirements, including value-based care initiatives. Traditionally anchored to the Resource Utilization Group (RUG) method, Medicare's transition to PDPM underscored a continued federal commitment to align care delivery and reimbursement with patient outcomes and specific needs, and to set reimbursement levels varying with each resident's needs and their average (i.e., predicted) costs rather than reimbursing each nursing facility for its actual cost of care. By emphasizing clinical requirements over volume-driven metrics, the PDPM system aimed to prioritize quality care over quantity of care. As part of this transition, payments for rehabilitation were separated from base PDPM payment, leaving a core "nursing" component that enable state Medicaid programs who adopt the new methodology to isolate payments associated with their (non-rehab) role in nursing facility care.

States are increasingly considering the adoption of PDPM for Medicaid-funded long-term care as a forward-looking alternative to the RUG system, which is currently the primary approach used for states that employ a case-mix classification. One compelling reason for this shift is that collection of the MDS data elements required to use the RUG system will no longer be supported by CMS after October 2023; states will have the option to use the Optional State Assessment (OSA) which collects these RUG-specific elements only until October 2025, thus necessitating the adoption of a new payment methodology. Given this pending deadline, it appears that several states are exploring PDPM as a more patient-centric, streamlined, and cost-effective model that aligns well with the broader healthcare trend toward value-based care. The transition to PDPM may result in improving the quality of care for Medicaid beneficiaries by focusing on individual patient needs rather than service volume.

Several states are actively evaluating the potential of integrating PDPM into their Medicaid-funded long-term care programs. However, to date Illinois seems to have made the most progress, having begun its transition from a RUG-based reimbursement to PDPM payments in July 2022.

To date Illinois seems to have made the most progress in adopting PDPM, having begun its transition from a RUG-based reimbursement to PDPM payments in July 2022.

Table 3 below provides snapshots for a selection of states who are considering or moving to PDPM as of October 2023.

Table 3. Approaches to Patient Driven Payment Model (PDPM) Implementation

State	Summary	Source
Virginia	PDPM data will only be used for informational purposes and will not impact Medicaid reimbursement. Virginia will continue to use RUG-IV Grouper 48.	Virginia Medicaid
North Carolina	NC Medicaid has not decided on a transition date from RUG to PDPM. Providers will be informed when a decision is made.	NC Medicaid
Georgia	Therapy services are primarily reimbursed outside of the Medicaid nursing facility inpatient per diem. No specific transition date mentioned.	Georgia DCH
Nebraska	Nebraska Medicaid uses the PDPM Nursing Component portion of the PDPM HIPPS code in calculating nursing facility reimbursement.	Nebraska Health Care Association
Texas	HHSC should continue with the implementation of a new Medicaid rate methodology that is consistent with PDPM.	Texas HHS
Connecticut	Beginning July 1, 2023, individualized reports will be issued to each nursing facility showing a theoretical example of how the Medicaid rate would be calculated.	CT.gov
Ohio	Ohio Medicaid will transition to PDPM for its case mix calculation in October 2023.	LeadingAge Ohio
Massachusetts	Effective October 1, 2023, MassHealth will transition to PDPM by utilizing the CMS Minimum Data Set (MDS 3.0) tool.	Mass Senior Care

Payment Initiatives

The landscape of Medicaid fee-for-service (FFS) payment policies for nursing facilities varies significantly across states, reflecting the flexibility that states have in designing their payment methods. Table 4 below provides an overview of the various payment policies and initiatives that some states have implemented to fund nursing facilities prior to December 2019. The policies range from cost-based to price-based payments and includes counts of states that have adopted more targeted approaches like acuity or case mix adjustments and supplemental payments. The table also indicates the number of states that have adopted each of these

policies, offering a snapshot of prevalent practices in nursing facility funding across the United States.[28]

Table 4. Payment Initiatives and Number of States that Utilize the Initiative

Payment Initiatives	Payment Policies	# of States
Cost-based Payment	Facilities are paid their actual costs per day up to a predetermined ceiling.	31 states use this
Price-based Payment	Prices are developed prospectively by the state	15 states use this
Rebasing	Update cost reports to calculate base rates	22 states rebase annually
Bed Hold	States may continue to pay the per diem rate for patients temporarily absent	43 states allow this
Acuity or Case Mix Adjustment	Adjust base rates by patient acuity	42 states do this
Peer Grouping	Adjust rates based on groups of facilities in the same area	38 states do this
High-Need Patients	Provide rate adjustments for facilities based on types of services provided	37 do this for ventilator services 22 do this for certain mental health or other cognitive impairments
Supplemental Payments	Make up the difference between base FFS payments and what Medicare would have paid	25 states do this
Incentive Payments	Encourage providers to implement certain initiatives or meet specific metrics	25 states do this

COVID-19 Related Funding

The COVID-19 impact on long-term care cannot be overstated. The pandemic brought unprecedented challenges to nursing facilities, from managing outbreaks to ensuring the safety of both residents and staff. Quarantine measures, while essential for infection control, led to reduced social interactions and potential mental health implications for residents. Staffing became even more challenging, with facilities facing shortages due to infections, quarantines, or burnout. Moreover, the politicization of vaccines and the broader anxieties of the pandemic era likely influenced various care metrics, from vaccination rates to mental health indicators. Table 5

[28] Nursing Facility Fee-for-Service Payment Policy (macpac.gov) MACPAC – Issues Brief 2019 "Nursing Facility Fee-for-Service Payment Policy."

illustrates some of the financing mechanisms states employed to shore up the long-term care industry.

Table 5. COVID Related Funding Initiatives[29]

State	Initiatives	Intended Outcomes
AL	$20 per diem add-on payment per Medicaid resident; one-time payment for cleaning costs	Financial support during the pandemic
CA	10% uniform rate increase, financial relief effective from March 1	Financial relief during the national public health emergency
CT	10% rate increase, $600 per day for COVID-19-specific facilities	Employee wages, PPE, cleaning supplies
CO	One-time 8% rate increase	Financial support based on 2019 Medicaid days of care
DC	20% rate increase	Financial relief during the national public health emergency
IN	4.2% rate increase, additional 2% for COVID-19 readiness, $115 per diem for COVID-19 positive residents	Financial support and readiness for COVID-19
GA	Interim payments based on average payments from Dec, Jan, Feb	Financial support during the national emergency period
KS	$20 daily add-on to per diems, financial support retroactive to March 13, 2020	Financial support during the national emergency period
KY	270 per diem add-on for COVID-19 positive residents	Financial support for handling COVID-19 cases
MA	More than $200 million devoted to nursing facilities	Financial support, and testing, PPE, infection control, and rate increases
LA	$12 per day rate increase, 100% payment for absence days	Financial support effective as of March 1
MN	$200 million to support healthcare providers	Financial support for various healthcare providers, including nursing facilities
ME	$10.1 million fund for congregate care settings	Extra staffing and PPE costs

[29] States Leverage Medicaid to Provide Nursing Homes a Lifeline through COVID-19 (leadingage.org)

State	Initiatives	Intended Outcomes
MT	$40 per person, per day based on claims from March-June, 2020	Financial support for Medicaid residents
NM	30% rate increase for COVID-19 positive residents	Financial support for handling COVID-19 cases
NC	5% Medicaid rate increase	Financial support with a median daily increase of $9.62
OH	Payment for healthcare isolation centers	Financial support based on acuity of care needed
OR	10% rate increase, incentive payments	Financial support and workforce-related criteria
SC	4% daily add-on	Financial support calculated based on various components
TN	Rate increases conditioned on staff retention	Financial support and staff retention
RI	10% rate increase	Financial support retroactive to April 1
VA	$20 add-on to per diem rates	Financial support retroactive to March 12
WA	$29 daily add-on	Financial support retroactive to February 1
WI	Fund to support direct care worker wages	Financial support for direct care worker wages

Having reviewed the nursing facility landscape, both its challenges and opportunities, at the state and national level, the remainder of this report will delve deeper into the 2022 reform implementation. The report examines changes in Illinois' nursing facility industry across a variety of financial, operational, and organizational metrics and discusses some preliminary observations with regard to the 2022 reform measures.

IV. Changes in Nursing Facilities Operations and Demographics

Introduction

Since the publication of the 2021 report, Illinois has experienced noteworthy shifts in the landscape of its nursing facilities. These shifts encompass a range of factors, from ownership structures and Medicaid utilization rates to Medicaid bed days and other demographic and operational variables. While some of these changes can be attributed to natural fluctuations in facility capacity and ownership transitions, it is crucial to systematically examine these broader trends to understand their implications for long-term care in the state.

Methodology

The variables used in examining changes in nursing facility operations and demographics were derived from specific data sources. The number of beds per facility was sourced from columns in the Illinois cost reports, providing a measure of facility capacity. The count of residents in facilities was extracted from the Minimum Data Set (MDS) data. The total count of facilities included in the analysis was based on those that submit MDS data. Facilities participating in Medicaid as well as ownership were identified from submissions of Illinois cost reports. Additionally, Health Service Area (HSA) regions were classified into two categories, with facilities in Chicago treated as one distinct region and facilities in all other areas in Illinois grouped into the non-Chicago category.

Findings

Count of All Residents and Nursing Facilities per Calendar Year

Table 6, below, provides an overview of the trends in nursing facility resident populations and the availability of nursing facilities in the state of Illinois over a 5-year period from 2018 to 2022. This data is helpful in understanding the changes in the long-term care landscape, particularly for the elderly and vulnerable populations reliant on nursing facilities. It is important to note the potential impact of the COVID-19 pandemic, beginning in the last quarter of 2019, and its implications on these trends, affecting both the resident populations and the operational capacity of the nursing facilities.

Table 6. Count of Unique Residents and Nursing Facilities by Calendar Year[30]

Calendar Year	Residents	Nursing Facilities (all)
2018	366,614	733
2019	359,663	727
2020	307,651	720
2021	295,812	708
2022	306,277	700

[30] Source: MDS

Table 6, sourced from the Minimum Data Set (MDS) covering the years 2018 to 2022, indicates significant trends in the population of nursing facility residents and the number of facilities in Illinois. It is important to acknowledge that the MDS data may not completely align with other data sources referenced in this report, but we present the MDS as a consistent source of all-payer utilization that runs through calendar year 2022 for all facilities. In the year preceding PHE, 2018 marked the peak in resident numbers, with 366,614 individuals in nursing facilities across Illinois. Subsequent years saw a downward trend, dropping to a low of 295,812 residents in 2021. However, 2022 witnessed a slight increase, with the resident count rising to 306,277.

Concurrently, Illinois saw a gradual decrease in the number of both Medicaid and non-Medicaid nursing facilities, from 733 in 2018 to 700 in 2022.

The onset of the PHE in the second quarter of 2020 is also a critical factor to consider, as it has significantly influenced the health and safety of residents in nursing facilities. The effects of the pandemic are likely mirrored in the reduced resident counts observed in 2020 and 2021.

Distribution of Medicaid and Non-Medicaid and For-Profit and Non-Profit Nursing Facilities

Figure 3 provides an overview of Medicaid participation trends across nursing facilities in Illinois, categorized by their ownership type, over a span of six years from 2017 to 2022 and drawn from HFS cost reports submitted by the facilities. This figure aims to shed light on the participation dynamics within for-profit, government-owned, and non-profit nursing facilities, highlighting the fluctuations and patterns that have emerged in each sector. In total, Medicaid participation has risen over this time period.

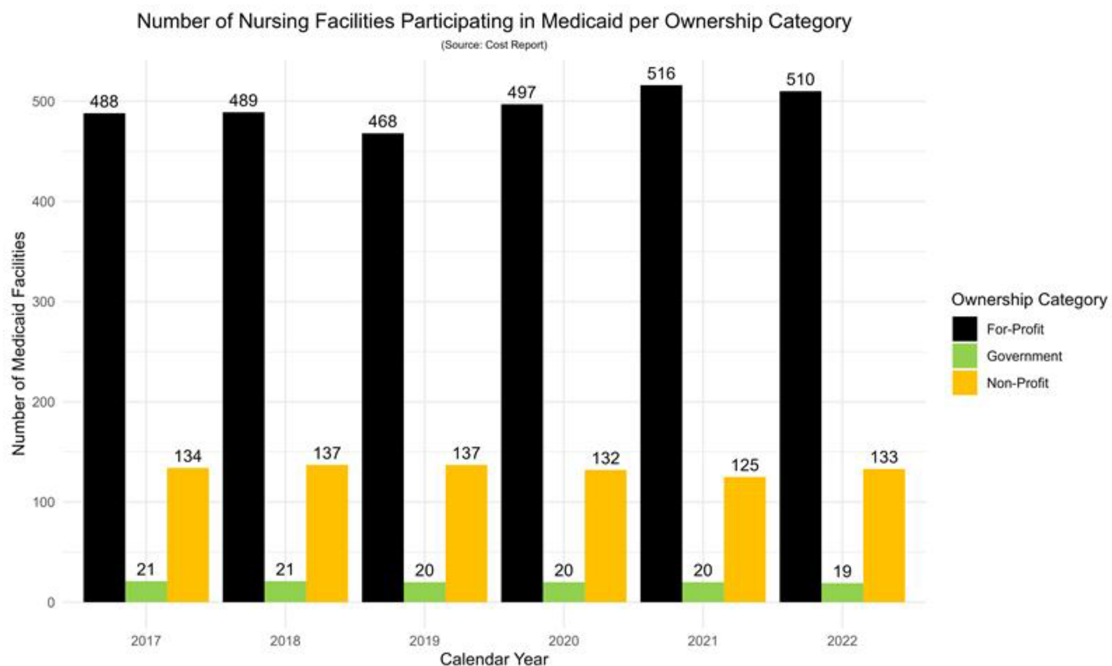

Figure 3. Number of Facilities Participating in Medicaid per Ownership Category

For-profit facilities continue to be the predominant ownership category in the state, showing significant fluctuations over the six years. The number of facilities was essentially unchanged from 2017 (n=488) to 2018 (n=489), followed by a decrease in 2019 (to 468). This drop might be

attributed to changes in ownership and their influence on reporting. In the subsequent years, the numbers rebounded to 497 in 2020, peaked at 516 in 2021, and then decreased slightly to 510 in 2022. At the time of this publication, approximately 77% of nursing facilities were for-profit, a decrease of 3% from the 2021 report.

The number of reporting government-owned facilities fluctuated over the time period, rising to 137 in 2018, falling to a low of 125 in 2021, and ending with 133 in 2022.

Count of Nursing Facilities by HSA Region

In understanding the landscape of long-term care in Illinois, it is important to note the distribution and availability of nursing facilities within the state. The following analysis provides insights into the count of nursing facilities by Health Service Area (HSA) classification, focusing on comparative data from the years 2020 and 2022.

Figure 4 below indicates the number of Medicaid-participating nursing facilities within Illinois. In the Chicago region, there has been a modest increase, rising from 303 in 2020 to 308 in 2022. Outside of the Chicago area, the number of Medicaid-participating nursing facilities increased from 344 in 2020 to 352 in 2022.

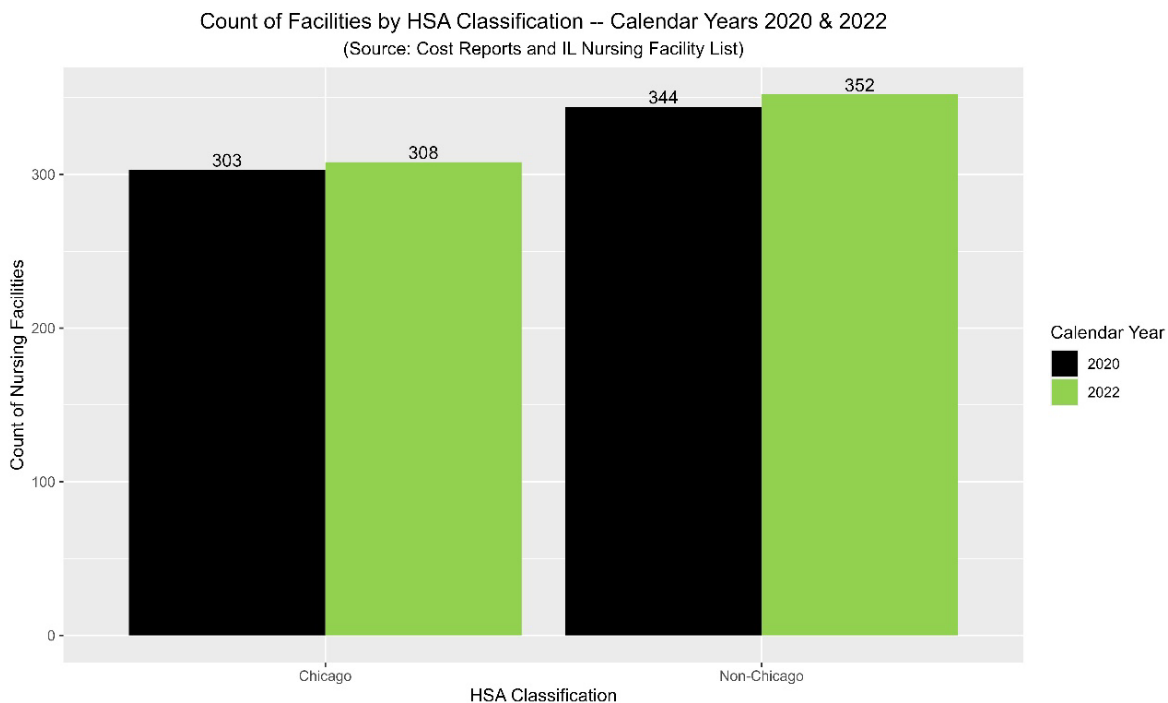

Figure 4. Count of Facilities by HSA Classification

V. Shifts in Provider Reimbursement

Introduction

The SFY 2020 Budget Implementation Act authorized an increase in Illinois Medicaid reimbursement to nursing facilities of $70 million or 2.8% of total nursing facility reimbursement. The non-federal share of this rate increase was funded through state general revenue. The rate increase was defined as a “staffing increase” and was applied equally to all facilities as a $4.55 increase to per diem rates. Nevertheless, prior to SFY 2023, HFS did not observe any appreciable changes in nursing facility staffing or quality in response to the increased Medicaid payments.

The 2022 reform increased nursing facility reimbursement by $704 million in SFY 2023 and $666 million in future years.[31] This is an increase of 27% in SFY 2023 (25% ongoing) over total SFY 2022 nursing facility reimbursement. Funding of the non-federal share of this increase was made through a combination of state general revenue and an increase in the nursing facility provider assessment. The reimbursement increases were implemented through a combination of per diem rate increases and the addition of new supplemental payments. These reimbursement increases were intended to incentivize nursing facilities to increase nursing staff, particularly CNA staff. The reimbursement increases were also intended to encourage nursing facilities to improve quality of care provided to Medicaid residents.

Per Diem Rates

Nursing facility per diem rates differ by facility based partially on facility cost, average level of complexity of care required to support residents in each facility, and other factors. The level of complexity of care for residents is referred as “case mix.” In addition, Illinois Medicaid nursing facility per diems are broken down into several components. The three primary per diem components are:

1. Nursing and Direct Care,
2. Support Service, and
3. Capital.

The 2022 reform impacted only the Nursing and Direct Care Component. Funding and the methodology for calculating the Support Service and Capital Components did not change.

The Nursing and Direct Care Component is further broken down into a base per diem rate and add-on rates. The base per diem rate is calculated as a statewide average facility rate[32] adjusted by facility-specific resident case mix, resulting in a different base per diem rate for each facility. As described previously, the 2022 reform shifted nursing facility Medicaid case mix measurement from RUG to PDPM categorization methods.

[31] The reforms also redirected the $4.55 add-on to help fund the STRIVE staffing incentive, fulfilling the original purpose of this funding, and raising the total allocation of the reforms to over $700 million per year.

[32] The statewide average facility rate effective July 1, 2022, was $97.785 when including the 1.06 wage area adjustment applied equally to all facilities.

Add-ons to the Nursing and Direct Care Component have also been added over time including one addition in SFY 2020 and a second addition in SFY 2023. A list of per diem rate add-ons is listed in Table 7.

Table 7. Per Diem Rate Add-Ons

Prior to SFY 2020	SFY 2020 – 2022	SFY 2023 and Forward
Alzheimer/dementia	Alzheimer/dementia	Alzheimer/dementia
Serious Mental Illness (SMI)	Serious Mental Illness (SMI)	Serious Mental Illness (SMI)
Traumatic Brain Injury (TBI)	Traumatic Brain Injury (TBI)	Traumatic Brain Injury (TBI)
	Staffing	Staffing
		Medicaid utilization

Along with including a new Medicaid utilization per diem add-on in SFY 2023, increases were made to the base per diem rate and to the staffing add-on. The average nursing facility full per diem (including Nursing and Direct Care, Support Service, and Capital Components) in the fourth quarter of SFY 2022 was $109.30. With the infusion of additional funds in SFY 2023, the average full per diem in the first quarter of SFY 2023 was $156.58. This was a significant increase of $47.28 or 43% per day.

Specifically, a $7 per day increase was budgeted for the base per diem rate. The base per diem rate was also increased through a geographic wage area adjustment (multiplier) value of 1.06 applied to all facilities. This rate had been the ceiling and was applicable only in the Chicago area prior to SFY 2023. In addition, the staffing add-on changed from a fixed amount of $4.55 per day to a value on a sliding scale from $0.00 to $38.68 depending on each facility's percentage of total nurse staff hours versus STRIVE staffing targets. The staffing per diem add-on change is projected to increase total Medicaid payments specifically earmarked for staffing from $65 million to $314 million in SFY 2023 and to as much as $359 million in future years depending on facility staffing levels across the state. To give facilities a boost in hiring additional staff during the first two quarters of SFY 2023, Illinois Medicaid calculated the staffing add-on as the greater of 85% of the STRIVE target or the facility's actual staffing level as a percentage of their STRIVE target. Beginning January 1, 2023, facility STRIVE add-ons were based solely on their (measurement-lagged) specific staffing levels.

The Medicaid Utilization add-on was applied in a temporary manner for dates of service between July 1, 2022, and December 31, 2027. This payment is intended to support high Medicaid utilization facilities that were found in the September 2021 report to have, on average, lower staffing levels, lower quality of care, and higher room density. The Medicaid Utilization add-on is paid to all facilities with annual Medicaid bed days of at least 70% of all occupied bed days (Medicaid percentage). For qualifying facilities, this per diem add-on is calculated as a base value adjusted for each facility using the facility's Medicaid resident PDPM case mix. For the first two quarters of SFY 2023, the base value was $4.00 per day. Effective January 1, 2023, the base value increased to $4.75 per day. Because the add-on is considered part of base direct care payment, case-mix adjustments are applied, raising the average Medicaid Utilization

add-on for qualifying facilities to $5.29 in the first quarter of SFY 2023, and to $6.43 by the fourth quarter of SFY 2023.

The per diem rate changes in SFY 2023 continue a trend by HFS and the Illinois General Assembly to increase payments for nursing facilities both in total and specifically for the Nursing and Direct Care component. Changes in the nursing component of the per diem over the last five decades is depicted in the Figure 5. As shown, the nursing (or direct care) component of payment has risen from less than half the overall Medicaid rate in the 1980s to nearly 70% in 2023, an increase coinciding with significant aging of Illinois physical nursing home stock.[33] The 2022 reform alone increased the percentage of the per diem coming from the Nursing and Direct Care component from 60% to 67%.

The nursing (or direct care) component of payment has risen from less than half the overall Medicaid rate in the 1980s to nearly 70% in 2023.

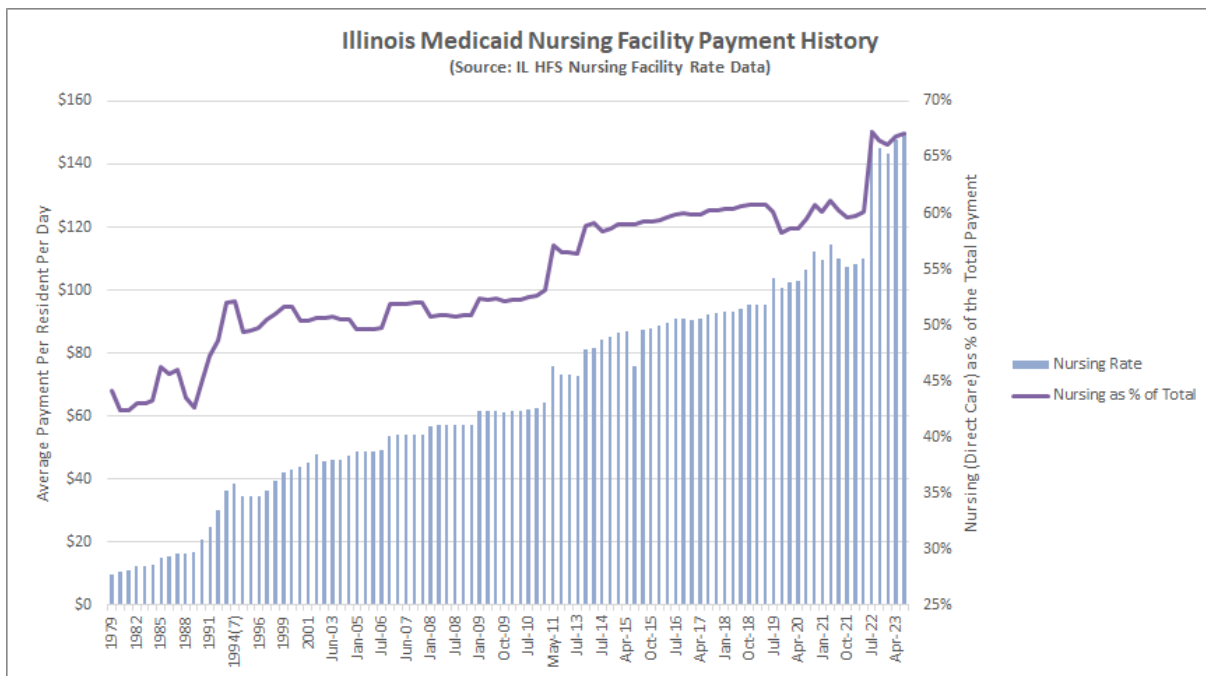

Figure 5. Illinois Medicaid Nursing Facility Payment History

Supplemental Payments

In addition to per diem rate increases, the 2022 reform included supplemental payments for CNA wage increases and healthcare quality. Supplemental payments are distributed in lump sum amounts either monthly (CNA pay scale) or quarterly (Quality Incentive Payment). The Quality Incentive Payment (QIP) supplemental payment totals $17.5 million per quarter and $70 million per year. The CNA staffing supplemental payment was estimated to cost $85 million per year at full implementation and is now approaching that level. Combined, the two supplemental

[33] HFS' "A Comprehensive Review of Nursing Home Payment with Recommendations for Reform", September 2021, pages 29 - 45.

payments are expected to distribute $155 million annually, or approximately 4% of the total annual Medicaid nursing facility budget.

The QIP program provides for additional reimbursement to facilities that have demonstrated certain performance levels on a measure linked to specific resident outcomes. The goal of the payment is to provide financial resources to facilities to encourage and reward the provision of quality care and obtain more positive resident outcomes. Payments are based solely on each facility's Long-Stay Quality Measure Star rating published by CMS. The CMS long-stay measure assigns each nursing facility a value between 0 (lowest quality) and 5 (highest quality). Illinois facilities with a higher Long-Stay value receive a higher payment through QIP.

The CNA staffing supplemental payment program is described as the CNA experience and promotion incentive program but is more commonly referred to as the CNA pay scale program. This optional program provides facilities with a subsidy payment for the Medicaid share of employee CNA experience and promotion wage enhancements. To be eligible for the CNA pay scale program a facility must:

1. Publish and display the CNA experience and promotion pay scales at the site of work, in a prominent and accessible place where it can easily be seen by workers and in a manner and location similar to that of Federal workplace posters,
2. Describe the pay scales in postings in a manner that enables employees to reasonably be able to apply them to their own circumstances and wage rate,
3. Have pay scales that meet or exceed those specified by HFS,
4. Pay employed CNAs hourly wage rates in accordance with posted CNA experience and promotion pay scales. and
5. Complete the HFS-provided CNA experience and promotion templates each quarter and provide a signed certification of participation prior to initial implementation.

Through this incentive payment program, HFS pays the Medicaid share (based on percentage of resident days) of any hourly rate increases that CNAs receive based on their experience level, according to the schedule in Table 8. In addition, this supplemental payment program subsidizes facilities $1.50/hour for Medicaid's share of any promotional pay increases for staff recently promoted into higher level CNA roles.

Table 8. CNA Experience Pay Scale Subsidies

Years of CNA Experience	Wage Increase
Less than 1 year	$0
1 year	$1.50
2 years	$2.50
3 years	$3.50
4 years	$4.50
5 years	$5.50
6 years or more	$6.50

Funding the Non-Federal Portion

Medicaid payments are financed through a mix of federal and state dollars. The state's share of funds serves as a match to draw down the federal portion of Medicaid reimbursements. Generally, the federal matching percentage for Illinois has been approximately 51% prior to the PHE. This means that for every dollar distributed to nursing facilities through Medicaid payments, 49 cents are coming from the state's share (the non-federal share) and 51 cents are funded by the federal government. A substantial part of the state's share of Medicaid reimbursements comes from state general revenue, which is primarily generated from state tax revenue. For institutional care, such as nursing facility care, nearly all states' Medicaid agencies – including HFS – supplement some of the state share through other sources including inter-governmental transfers (typically from state- or county-owned facilities) and healthcare provider assessments.

Prior to the 2022 reform, Illinois Medicaid was using a mix of state general revenue, inter-governmental transfers, and a provider assessment to fund reimbursement for nursing facility care. To fund the increased nursing facility reimbursements that took effect on July 1, 2022, Illinois increased state general revenue funding for Medicaid nursing facility reimbursements by $145 million in SFY 2023 and an estimated $129 million in future years. HFS also increased the provider assessment to bring in a projected additional $208 million annually. A more detailed discussion on the implications of this partially self-financed increase—both in terms of Medicaid reimbursement and the provider assessment tax—is found in the "VII. Shifts in Cost Coverage" section of this report.

Methodology

Data reviewed for this section include Illinois Medicaid nursing facility rate worksheets, Medicaid claims payment information and supplemental payments made in SFY 2023. Claim volume in SFY 2023 was not complete at the time of writing. Hence for SFY 2023, claim data are from actual experience for dates of service in the first half of SFY 2023 (July 1, 2022, through December 31, 2022). In order to align full and partial year data in some of the analyses below, we have depicted full SFY 2023 expenditures by doubling claims experience from the first half of the fiscal year. Categories of nursing facilities included in some of the graphs in this chapter are based on data from fiscal year end (FYE) 2022 cost reports.

Findings

Increases in Reimbursement

Medicaid claim payments, not including supplemental payments, increased from a per day average of $189.33 in SFY 2022 to $231.53 in SFY 2023. When including supplemental payments, average payment per day in SFY 2023 was $239.46. Thus, payment per day increased from SFY 2022 to SFY 2023 by 22.3% on claims alone and by 26.5% in total. This statewide payment increase is depicted in Figure 6 below.

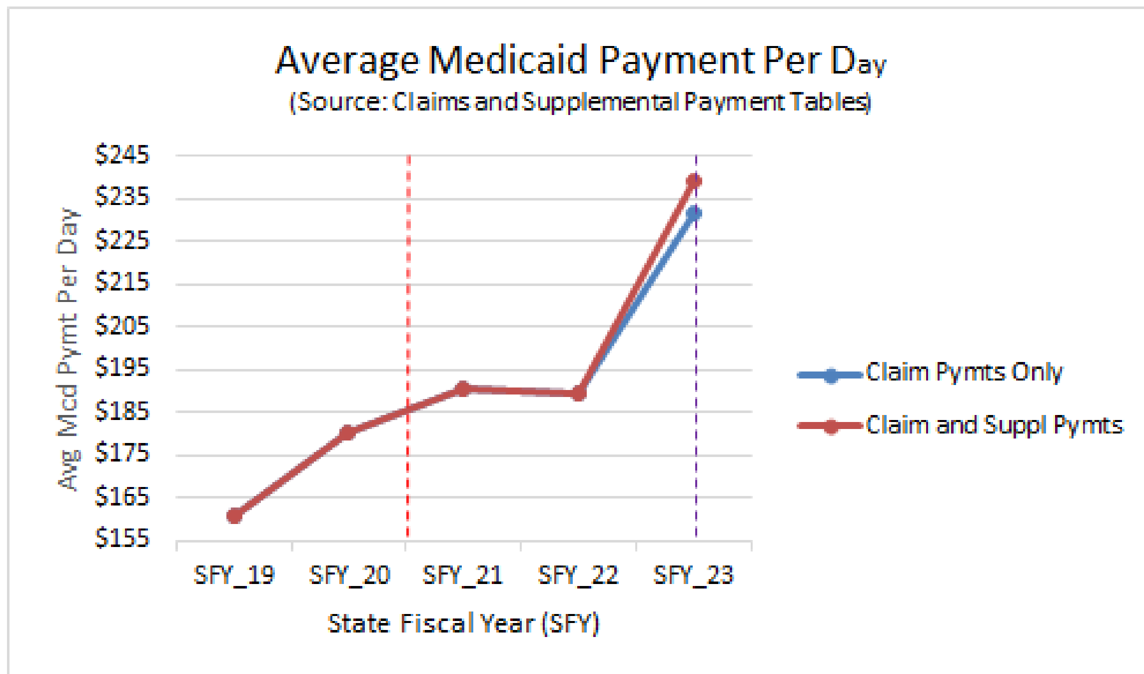

Figure 6. Average Medicaid Payment Per Day

The trends observed in Illinois Medicaid nursing facility payment history from 1979 to 2023 align with the broader pattern of increasing healthcare costs, as evident in the data for SFY 2022 to SFY 2023. Over the decades, there has been a consistent and significant rise in the Support, Capital, and Nursing Rates, reflecting the escalating operational, infrastructure, and direct care costs in nursing homes. Starting from modest figures in 1979 — with a Support Rate of $9.05, Capital Rate of $2.95, and Nursing Rate of $9.49 — these rates have grown substantially, reaching $57.52, $15.84, and $149.75 respectively by July 2023. Notably, the Nursing Rate, representing a critical component of total costs, has seen a particularly sharp increase, especially in recent years, indicating a shift towards more resource-intensive nursing care. This trend is consistent with the statewide increase in Medicaid claim payments, which rose from an average of $189.33 per day in SFY 2022 to $231.53 in SFY 2023. Including supplemental payments, the average payment per day in SFY 2023 was even higher, at $239.46. Consequently, this equates to an increase of 22.3% in claim payments and 26.5% overall from SFY 2022 to SFY 2023. A graphical description of per diem rate changes over the last 45 years in aggregate and by per diem component is shown in Figure 7.

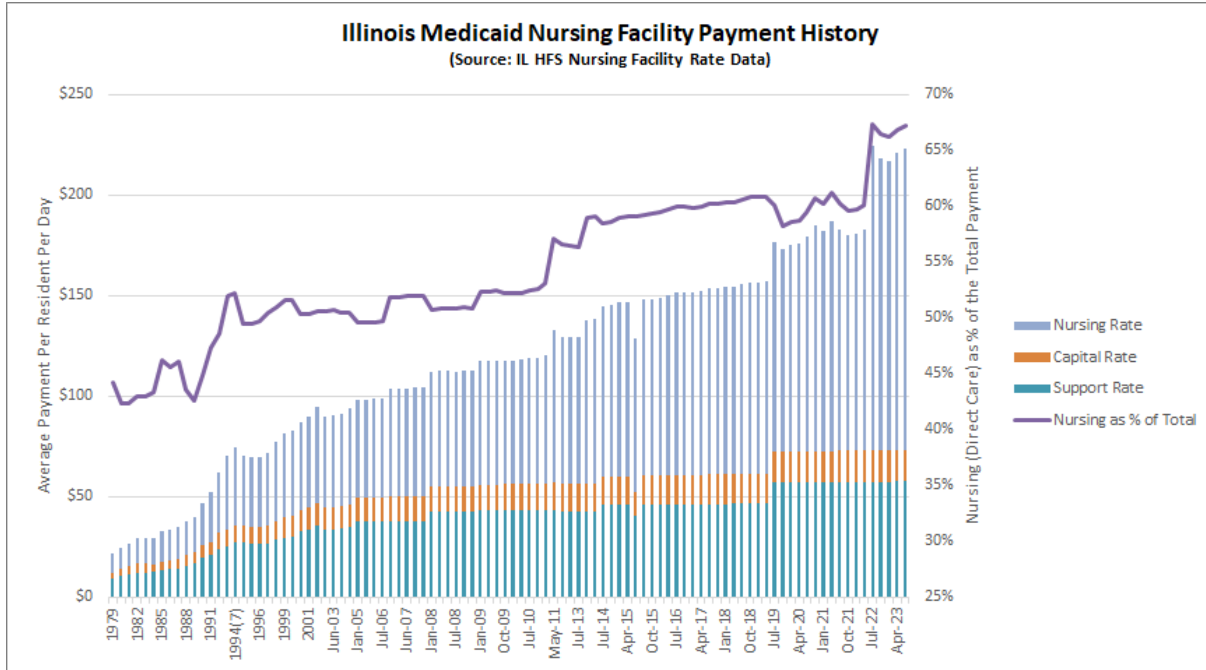

Figure 7. Illinois Medicaid Nursing Facility Payment History

Projected versus Actual Reimbursement in SFY 2023

Illinois' Medicaid 2022 reform was projected to increase total nursing facility reimbursement by $704 million in SFY 2023 and by $666 million annually in future years through the following categories listed in Table 9.

Table 9. Original Cost Projections for the 2022 Reforms (in millions)

Category of Reimbursement	SFY 2023*	Future Years*
Increase base rate by $5 per day	$90	$90
Staffing based on STRIVE target	$314	$359
QIP supplemental payments	$70	$70
Staffing supplemental payments	$85	$85
Increase base rate by an additional $2 per day	$36	$36
High Medicaid utilization per diem add-on	$42	$42
1.06 wage area adjustment	$34	$34
SMI (low 4 RUGs) increase	$15	$15
Two quarter STRIVE target "head start"	$45	$0
Five quarter PDPM transition	$38	$0

Category of Reimbursement	SFY 2023*	Future Years*
Redistribution of existing $4.55 staffing add-on	-$65	-$65
Total	**$704**	**$666**

Numbers are expressed in millions.

Using the rate of claim volume from the first six months of SFY 2023, annual claim payments would increase from $2.67 billion at SFY 2022 Q4 rates to $3.22 billion at SFY 2023 rates and would further increase to $3.34 billion when including the SFY 2023 supplemental payments, representing a nearly $700 million increase even without including any additional spending by facilities observed to (still) be adding nurse staff in the first two quarters of calendar year 2023.

Staffing supplemental payments in SFY 2023 totaled $42.3 million (actual four quarter total), or approximately half of what was budgeted. This is due to a slower-than-expected rate of take-up of the pay scale program by facilities, as well as delayed satisfaction of program requirements by participating facilities. As shown in the Figure 8, supplemental payments made through the CNA pay scale incentive program increased in each quarter of SFY 2023 and the first quarter of SFY 2024 and are anticipated to increase in future quarters. In the first quarter of SFY 2024, total payment was $20.4 million, nearly the full budget amount of $21.25 million per quarter.

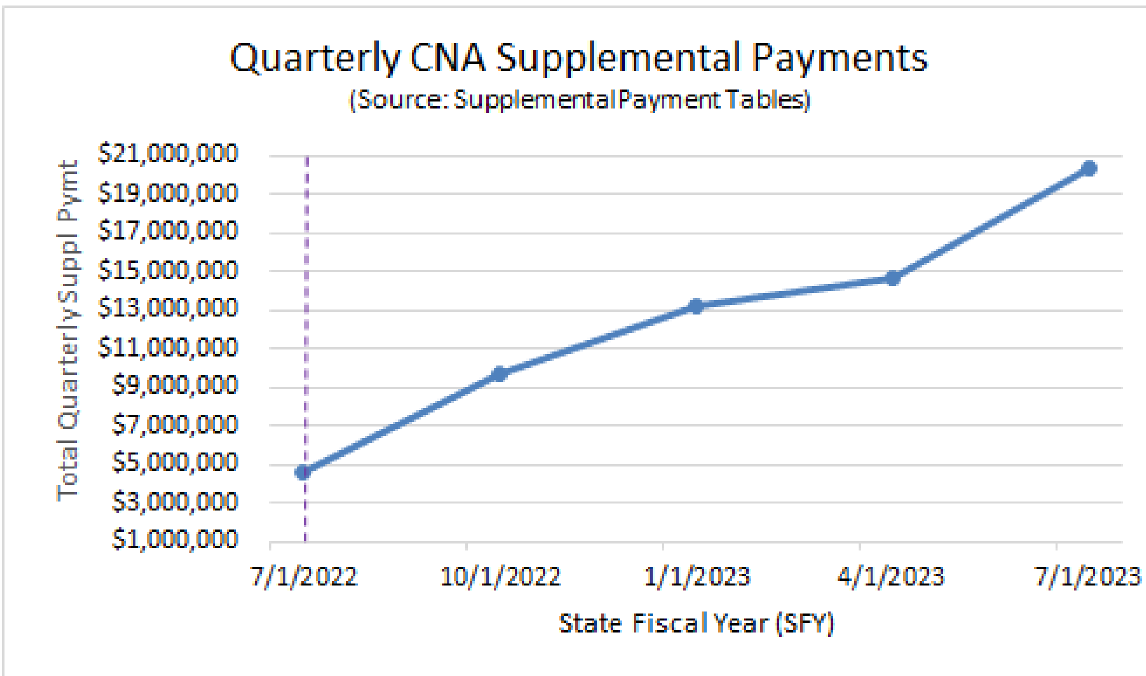

Figure 8. Quarterly CNA Experience and Promotion Supplemental Payments

Impact of Reform on Medicaid Utilization

One of the questions arising from the 2022 reform was whether the rate increases and incentives would affect facilities' willingness to accept Medicaid residents. Figure 9 below compares Medicaid utilization between calendar years 2018 and 2022 and shows the number of lower Medicaid utilization facilities decreasing and the number of higher Medicaid utilization facilities increasing. Given the impact of the PHE, the newness of the reform, and the lag

inherent in receiving data such as Medicaid utilization, it will be valuable to perform future analyses to determine if the upward trend seen in calendar year 2022 is maintained or even continues upward in future years.

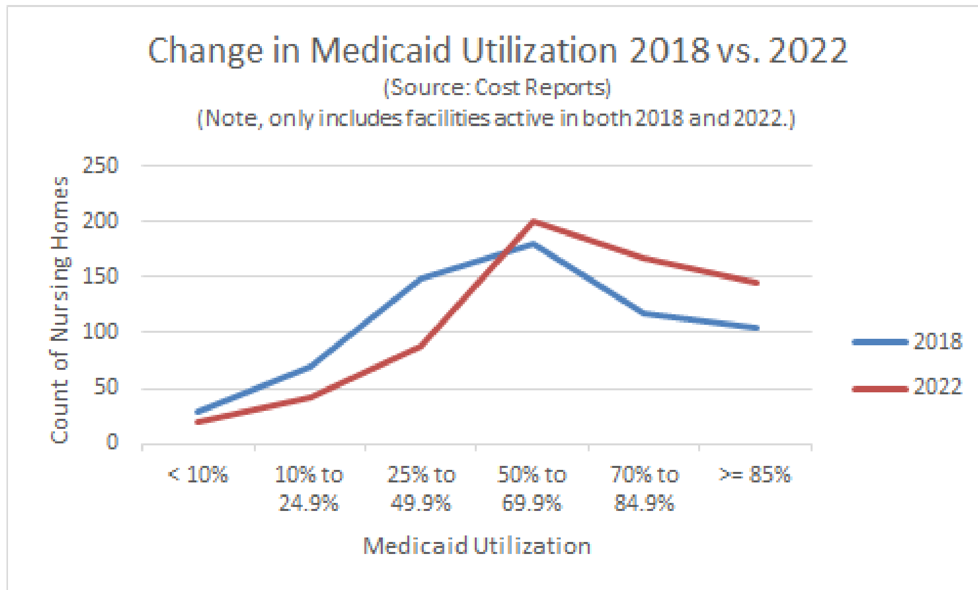

Figure 9. Percent Change in Medicaid Utilization

Impact of Reform on Payment Equity

Figure 10 below depicts the narrowing of the difference between the lowest and highest Medicaid payment per day for facilities arrayed by their percentage of residents of color.

The gap between the lowest and highest Medicaid payment per day for facilities with the highest and lowest percentage of residents of color fell from $40.16/day in SFY 2019 to $23.87/day in SFY 2023.

Specifically, the gap between the lowest and highest Medicaid payment per day for facilities with the highest and lowest percentages of residents of color fell from $40.16/day (a 29% difference) in SFY 2019 to $23.87/day (an 11% difference) in SFY 2023.

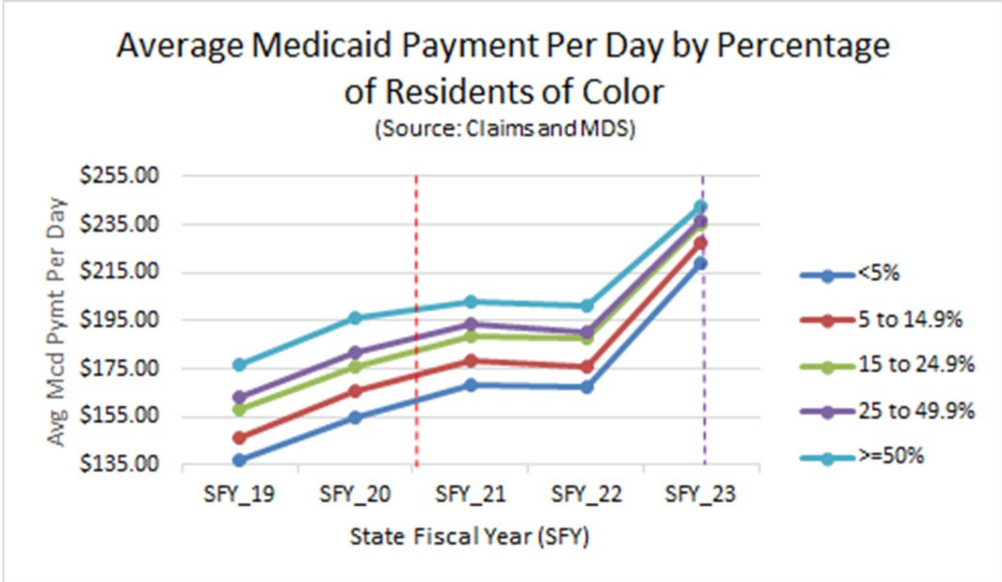

Figure 10. Differences in the Average Medicaid Payment per Day by Percentage of Residents of Color

VI. Shifts in Case Mix and Resident Coding due to PDPM

Introduction

Measurement of resident healthcare acuity is commonly used to adjust nursing facility reimbursements under the assumption that nursing facilities provide more intensive care and incur more costs to treat residents with higher acuity. Illinois Medicaid is such a payer, including acuity-based adjustment in nursing facility reimbursements. Average acuity is referred to as "case mix," and can be measured using a variety of different categorization models. As discussed previously, Medicare and Illinois Medicaid used a RUG case mix measurement tool for many years and recently converted to using a PDPM measurement tool.

Both RUG and PDPM acuity measurements are calculated based on residents' care needs reported by nursing facilities in the Minimum Data Set (MDS), which is based primarily on a comprehensive survey regularly administered to all nursing facility residents by facility staff. Thus, reimbursement is partially tied to information self-reported by the facilities and is subject to upcoding, i.e., the maximal (or even excessive) classification of residents' care needs for the purpose of maximizing reimbursement.

One of the goals of shifting away from the RUG-based system was to mitigate the influence of rehabilitation services within the RUG method. The RUG measurement tool provides a higher acuity measurement for residents who receive rehabilitation services. As a result, nursing facilities get *paid* noticeably more under payment methods including a RUG acuity-based adjustment if the facilities have a disproportionate number of residents *reported* by those facilities as needing rehabilitation services, which in turn is based on the amount of rehabilitation services *provided* to them by the facility. Largely through reported increases in rehabilitation services, HFS measured a 24% increase in RUG case mix in the seven years after RUG-based acuity adjustment was implemented. The result was a 4.4% average annual increase in rates and a $450 million increase in direct care payments in 2021 versus 2014.[34]

PDPM is designed to address limitations in RUG identified by CMS, the Medicare Payment Advisory Commission (MACPAC), HFS, and others. In contrast to the RUG system's emphasis put on the amount of therapy actually provided to a patient, not only the patient's characteristics, needs, or goals, PDPM categorization focuses on patient needs and not on the volume of services provided.[35] A similar change in payment methodology for hospital services was adopted by Medicare, Medicaid, and most private insurers several decades ago. PDPM has five case-mix adjusted components: nursing, physical therapy (PT), occupational therapy (OT), speech-language pathology (SLP), and non-therapy ancillary (NTA). Of these, Illinois Medicaid only uses the nursing component in its rate setting. Although the PDPM resident acuity tool is generally considered an improvement to the RUG system, PDPM does rely on MDS data, so PDPM-based reimbursement is also subject to nursing facility self-reporting.[36]

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[34] HFS' "A Comprehensive Review of Nursing Home Payment with Recommendations for Reform", September 2021, pages 12 and 13.

[35] "Comparison of Nursing Facility Acuity Adjustment Methods," Abt Associates, November, 2020, pages 3, 4.

[36] The 2022 reforms introduced an important counterbalance to upcoding by tying staffing targets used in the allocation of the $0-$38.78/day staffing incentive to the same facility-reported MDS data.

This chapter of the report looks at how RUG and PDPM case mix has changed for the Illinois Medicaid nursing facility population since Illinois shifted to reimbursement acuity adjustment based on PDPM case mix measurement.

Methodology

The primary data source used for this section was MDS records for residents in nursing facilities in Illinois between July 1, 2018, and June 30, 2023. Each MDS record was weighted by the number of days the resident was in the facility in order to ensure that results reflected the facility's typical resident population during each quarter. For this weighting, an exercise was performed to estimate the end date on each MDS record in order to determine the number of days in which each MDS record applied. For MDS records in which an end date could not be identified, a value equal to 182 days after the begin date of the record was applied. RUG code assignment on these records was applied using publicly available software from CMS. PDPM code assignment on these records was applied by CMS and is only available for MDS records dating back to October 1, 2020. The MDS data contained records for residents from all payors. Files created for quarterly Illinois Medicaid rate setting were provided by HFS and used to identify MDS records for Medicaid residents. This allowed MDS records to be identified as applicable to a Medicaid resident or non-Medicaid resident. RUG relative weights used in calculation of RUG case mix are values used in Illinois Medicaid rate setting from SFY 2014 through 2023. PDPM relative weights used in calculation of PDPM case mix are Illinois Medicaid values used in SFY 2023. Categories of nursing facilities were based on data from FYE 2022 cost reports.

Findings

RUG Case Mix Change

As mentioned previously, Illinois measured a sharp increase in RUG case mix once Medicaid reimbursement began including an adjustment based on this measurement in 2013/2014. Figure 11 depicts some of this increase, although much of the increase occurred prior to the timeframe reviewed for this report. Figure 11 also shows that the RUG case mix fluctuated a great deal and increased overall during the PHE. Winddown of the PHE coincided with the 2022 reform, which shifted away from the use of RUG for payment case mix adjustment. RUG case mix for Medicaid residents has steadily decreased since the 2022 reform was implemented and is nearing pre-pandemic levels.

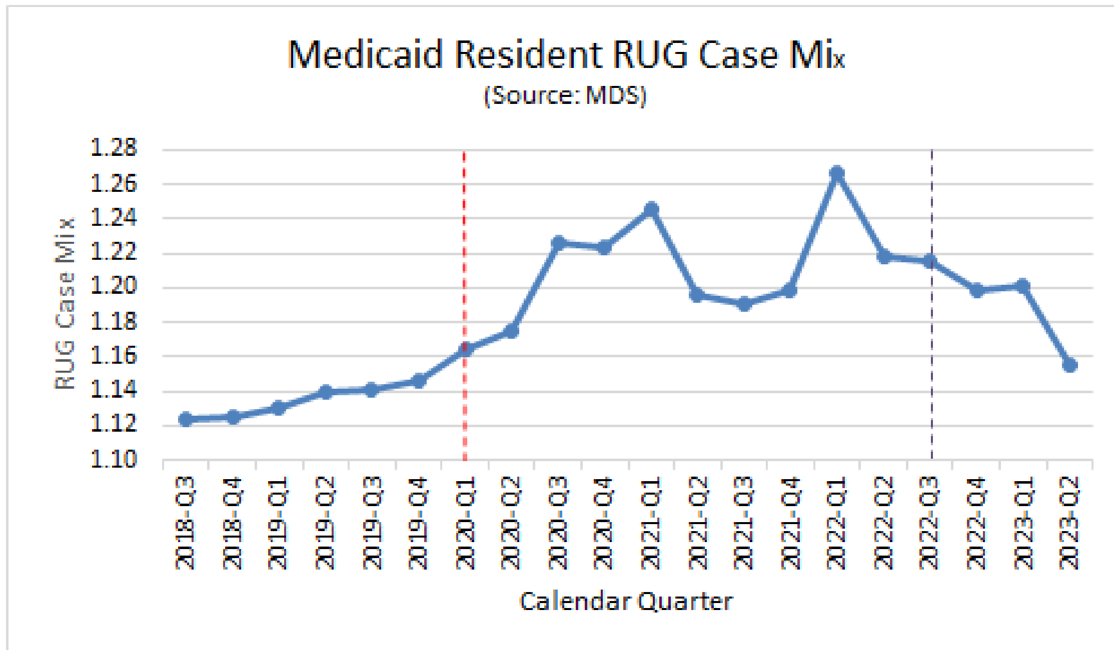

Figure 11. Medicaid Resident RUG Case Mix

It is difficult to determine if the reduction in RUG case mix is due to the 2022 reform or to a lower number of residents with COVID. This analysis is not sufficient to separate those two effects. However, Figure 12 and Figure 13 below indicate that the greatest decrease in RUG case mix in SFY 2023 is from facilities with the greatest Medicaid utilization (Figure 12) and from for-profit facilities (Figure 13). Unless these facilities also had the highest percentage of residents with COVID-19, these graphs do suggest that some of the reduction in RUG case mix could be due to coding changes as a result of reimbursement no longer being affected by RUG categorization. In fact, using the facility categorizations in these two graphs, the highest Medicaid utilization group and the for-profit facilities are the only two categories of nursing facilities for which RUG case mix in the second quarter of calendar year 2023 is less than their pre-pandemic levels.

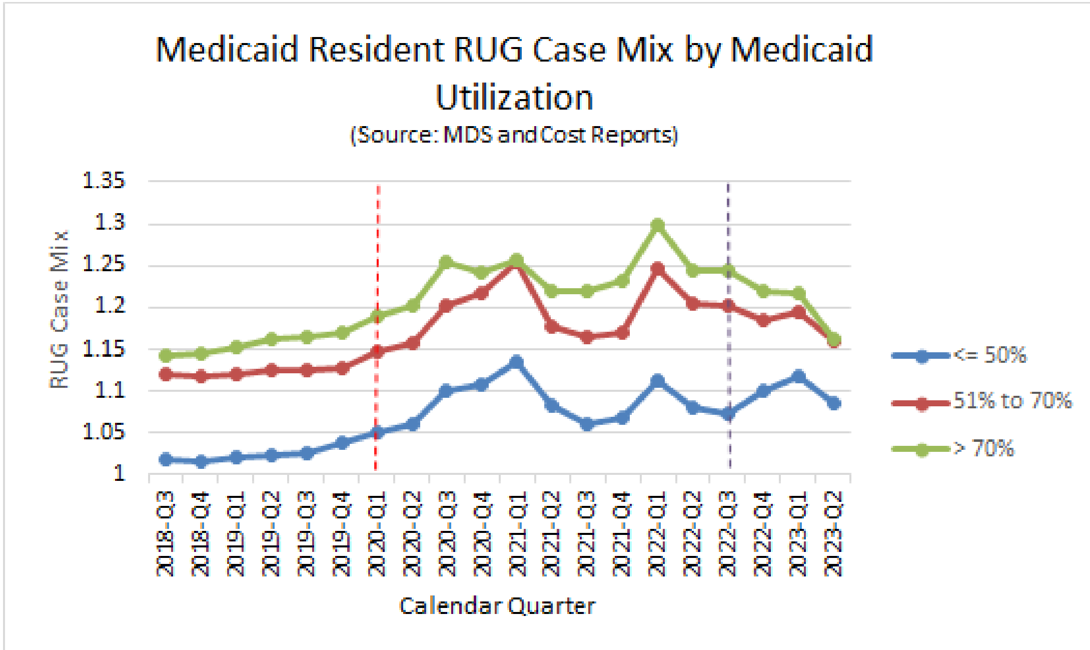

Figure 12. Medicaid Resident RUG Case Mix by Medicaid Utilization

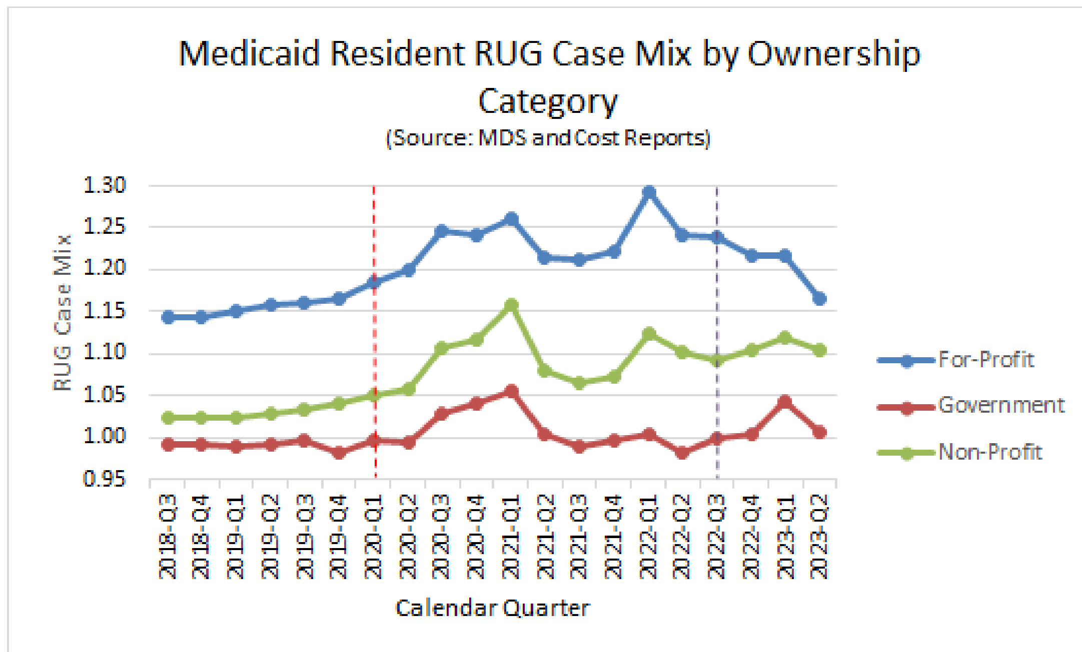

Figure 13. Medicaid Resident RUG Case Mix by Ownership Category

Also supportive of reform's impact on declining (RUG) case mix intensity is the observed reduction in the percentage of resident assessments that mapped to a rehabilitation RUG code during SFY 2023. This decline is depicted in Figure 14 and Figure 15 below. The percentage of Medicaid resident assessment records mapping to a rehabilitation RUG code dropped steadily in SFY 2023, to levels far below the pre-pandemic values. Leading in this decline were the group of facilities with the highest Medicaid utilization. High-Medicaid facilities had long had the highest percentage of rehab-coded residents but fell to the lowest in the span of just four post-reform quarters.

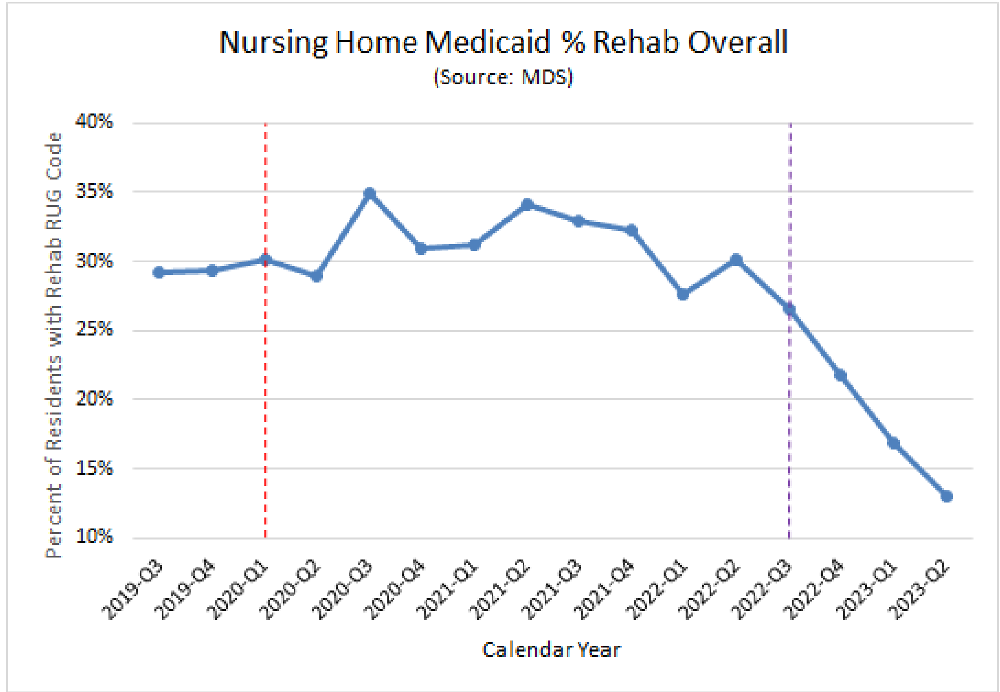

Figure 14. Nursing Facility Medicaid Percent Rehabilitation Overall

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High Medicaid facilities had the highest percentage of rehab-coded residents but fell to the lowest in the span of just four post-reform quarters.

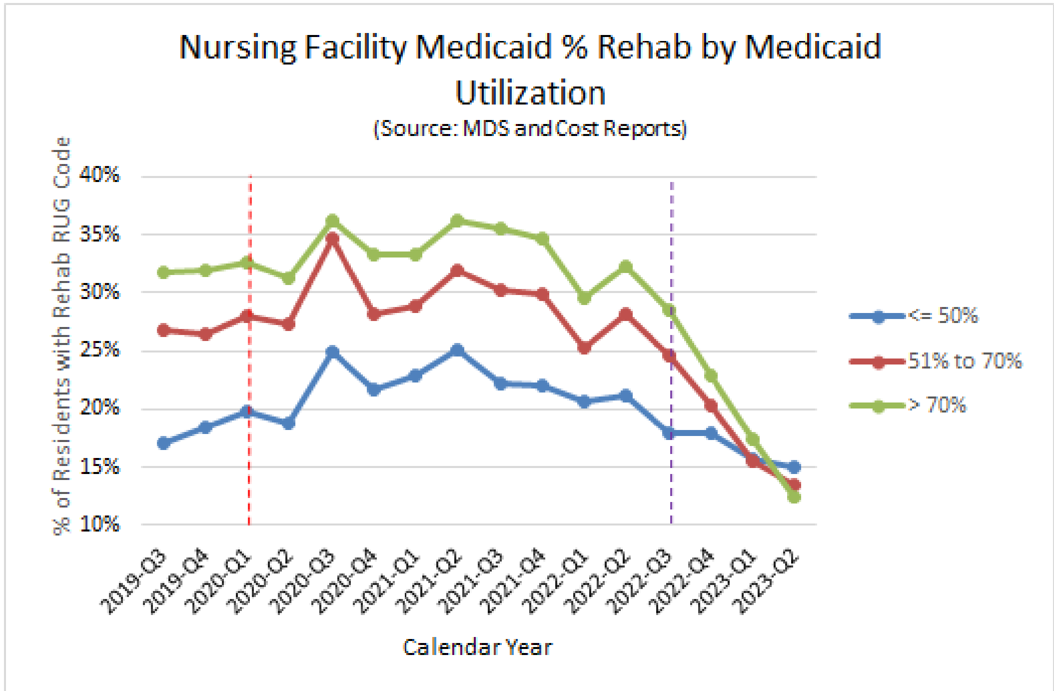

Figure 15. Nursing Facility Medicaid Percent Rehabilitation by Medicaid Utilization

PDPM Case Mix Change

Because self-reported MDS coding used for rate setting is an inexact science that can be used to create shifts in facility-level reimbursement, it could be expected that PDPM case mix would increase in SFY 2023, as Medicaid case mix adjustment of reimbursement shifted to using a PDPM measurement. In fact, the numbers do show a slight increase in PDPM case mix in SFY 2023 as shown in Figure 16.

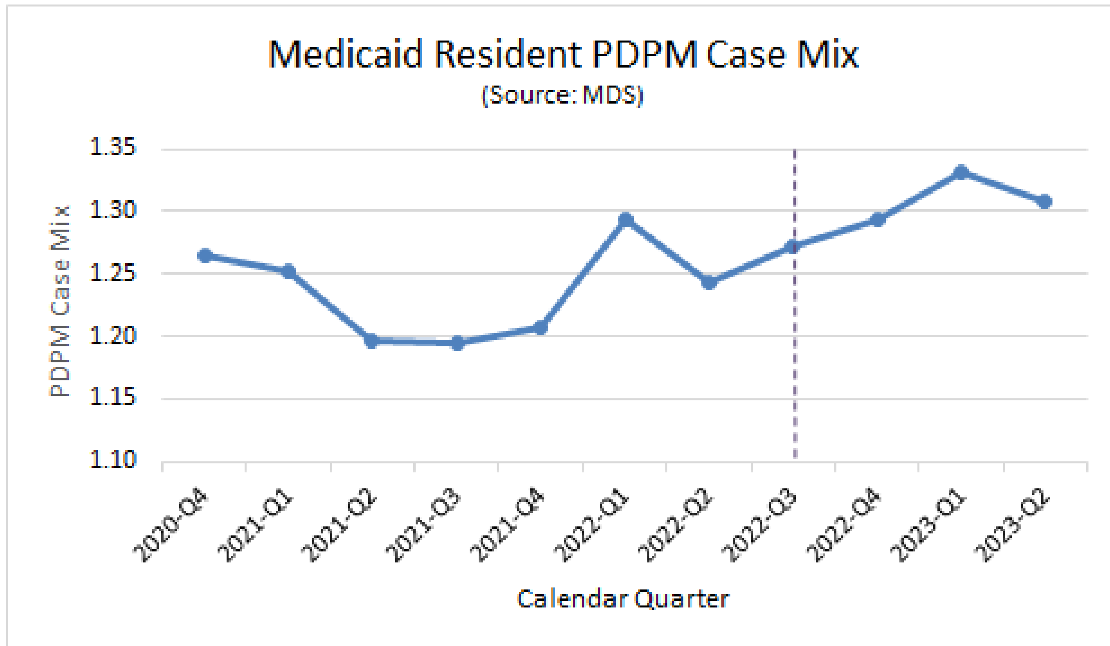

Figure 16. Medicaid Resident PDPM Case Mix

The increase in overall PDPM case mix from the beginning to the end of SFY 2023 is 2.8%. This is a much smaller case mix increase than the 10% increase witnessed between HFS' announcement and initial implementation of RUG for rate case mix adjustment in 2014. This is also less than the 5% decrease in RUG case mix over the same SFY 2023 time period. The increase in PDPM coding occurred at the same time that RUG coding decreased despite its basis in the same MDS resident assessments (though RUG and PDPM are based on somewhat different MDS items). Investigation of the specific sources of these coding trends is beyond the scope of this interim report, but the dynamic merits ongoing monitoring and further review.

The 2.8% increase in the (newly used) PDPM case mix index for Medicaid-funded residents in Illinois nursing facilities is much smaller than the 10% increase witnessed between HFS' announcement and initial implementation of RUGs in 2013-2014.

Interestingly, despite increased financial incentives, high Medicaid and for-profit facilities do not show relatively greater increases in PDPM case mix as compared to other categories of facilities (see Table 10 below). Future experience and additional analysis may help determine if the PDPM case mix measurement method – or Illinois' pairing of it with MDS-based staffing incentives - is less susceptible to coding adjustments than Illinois' previous RUG-based case mix measurement.

Table 10. Increase in PDPM Case Mix by Medicaid Utilization and Ownership Category

Medicaid Utilization Category	SFY 2023 Increase in PDPM Case Mix	Ownership Category	SFY 2023 Increase in PDPM Case Mix
<= 50%	3.9%	For-Profit	2.8%
51% to 70%	1.9%	Not-for-Profit	2.9%
> 70%	3.1%	Government	0.7%

Figure 17 below shows that PDPM case mix for Medicaid residents is higher in facilities that have higher Medicaid utilization. Figure 18 shows that PDPM case mix for Medicaid residents is higher in for-profit facilities versus non-for-profit and government owned facilities. These results generate important questions about the root causes of changes in coding:

- Do the facilities with higher Medicaid utilization and for-profit ownership structures house residents with more complex health needs or are these facilities simply coding more complex health needs in the resident assessment records?
- If the difference is simply due to coding and not to actual differences is resident health care needs, then is the coding difference due to more accurate data from high Medicaid utilization and for-profit nursing facilities who are putting greater emphasis on coding, or on coding intended to maximize reimbursement?

Further analysis will be necessary to address these questions.

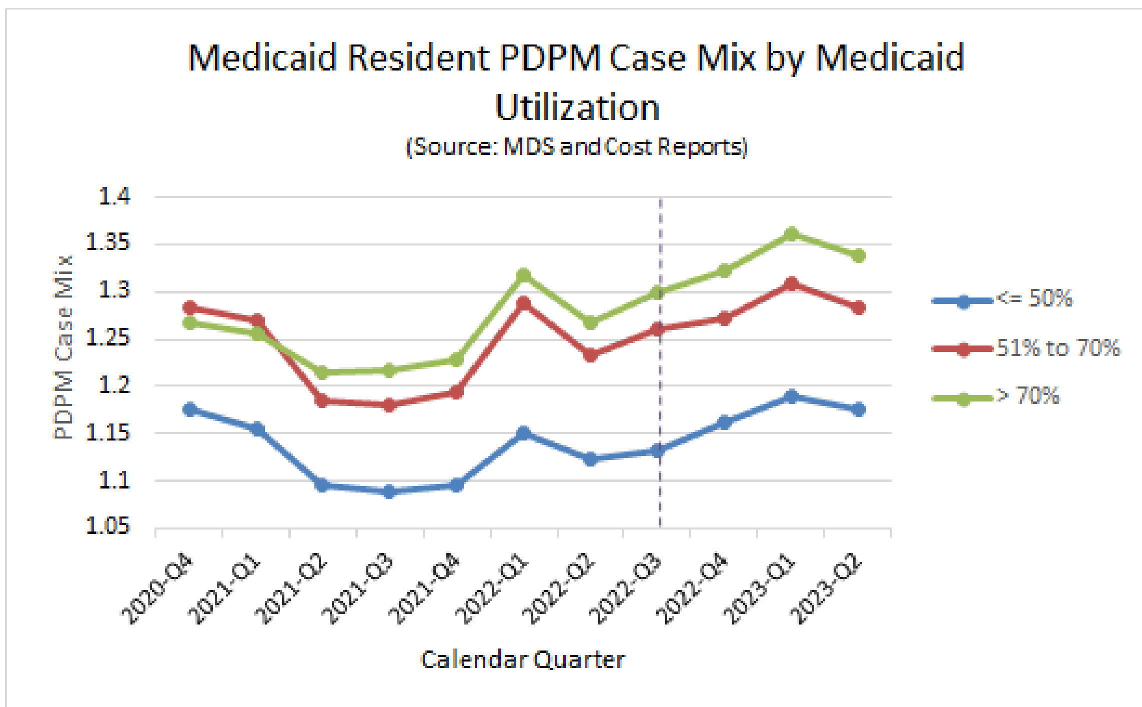

Figure 17. Medicaid Resident PDPM Case Mix by Medicaid Utilization

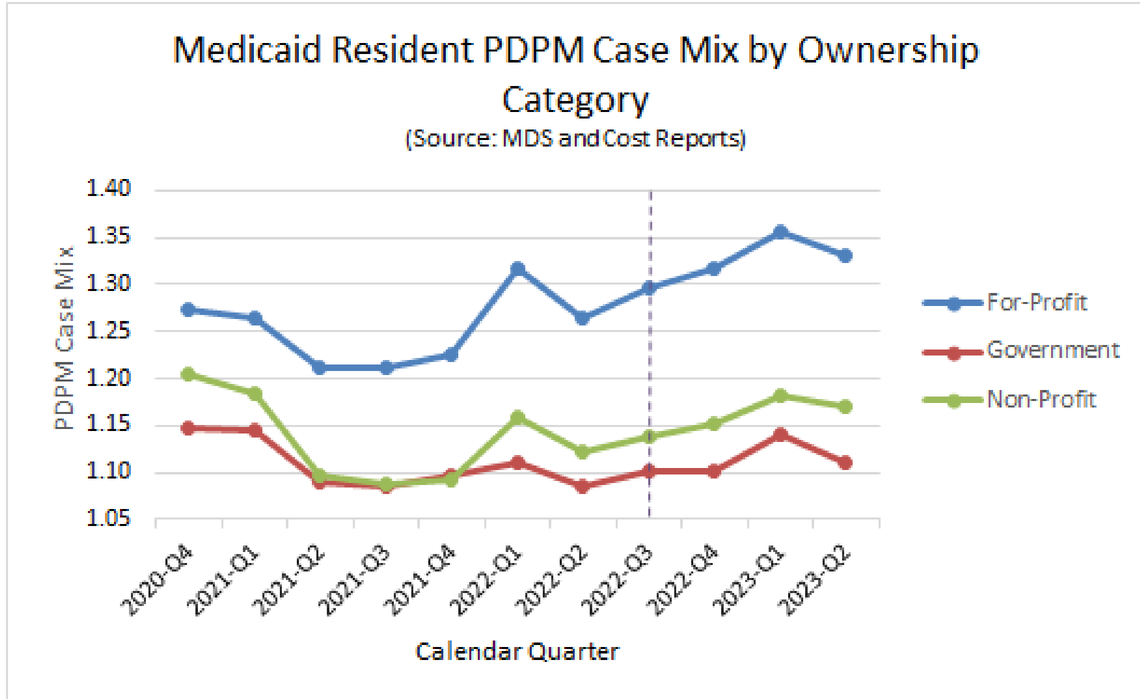

Figure 18. Medicaid Resident PDPM Case Mix by Ownership Category

Comparison of Staffing and Case Mix

Case mix adjustment of nursing facility per diems is applied under the assumption that nursing facilities who house residents with higher health care needs incur greater costs, most notably, higher nursing costs. In a perfect world, nursing facilities would staff based on the needs of their residents and facilities would provide more staff for residents having more complex care needs. Figure 19 looks at this assumption by comparing average number of nursing staff hours[37] by average RUG case mix. Facilities are grouped based on their RUG case mix, and averages were calculated per year. Interestingly, the graph shows that staffing is generally highest in facilities with the lowest case mix. Staffing for the higher case mix facilities has varied in recent years, with staffing in the second lowest case mix grouping actually having the second highest staffing levels by calendar year 2022. Also, coincident with both the COVID pandemic and, following that, implementation of the 2022 reforms, staffing levels for facilities with the highest case mix (above 1.3366) rose the most and now eclipse all but the group of facilities with the lowest case mix.

[37] Federal measures of nurse staffing in nursing facilities, which Illinois relies on to implement its CNA and STRIVE staffing initiatives, include RN, LPN, and CNA resident care hours.

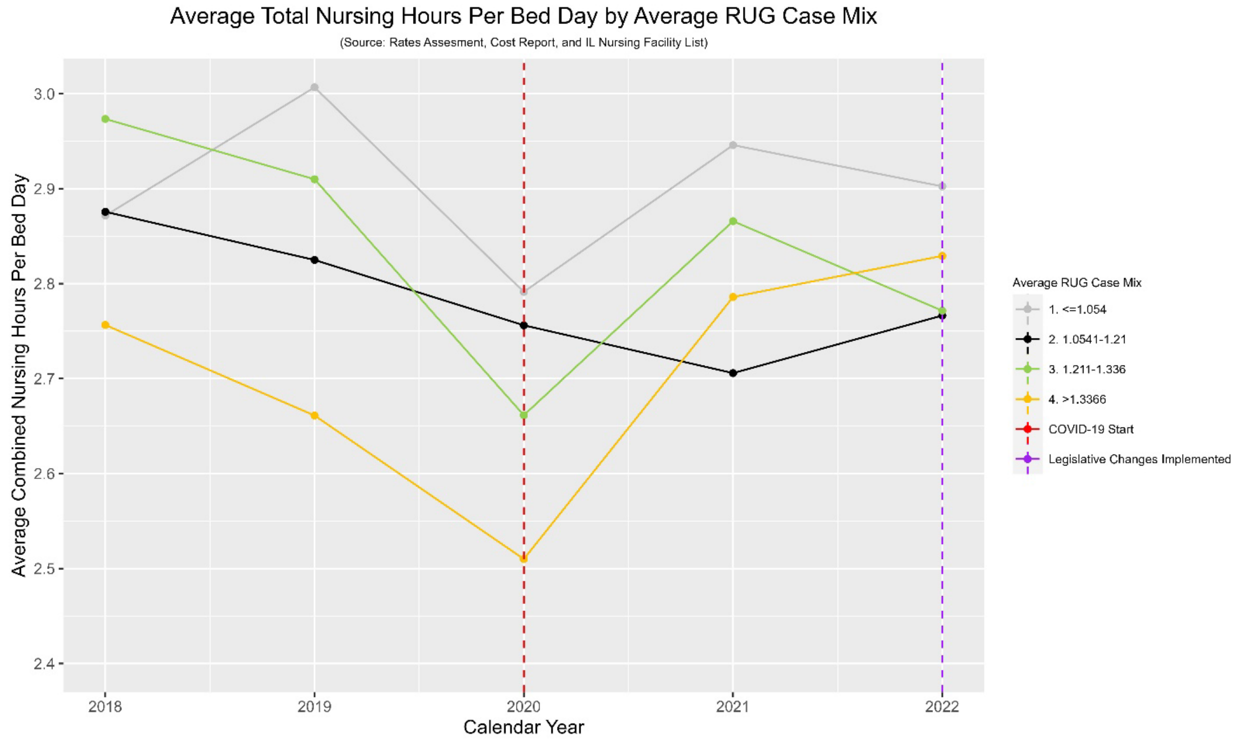

Figure 19. Average Total Nursing Hours per Bed Day by Average RUG Case Mix

A similar analysis with similar results shown in Figure 20 reviews RUG case mix by nursing facilities with facilities categorized based on their staffing as a percentage of their STRIVE target staffing levels. In this graph, STRIVE percentages are based on pre-reform values observed in the first quarter of calendar year 2022.

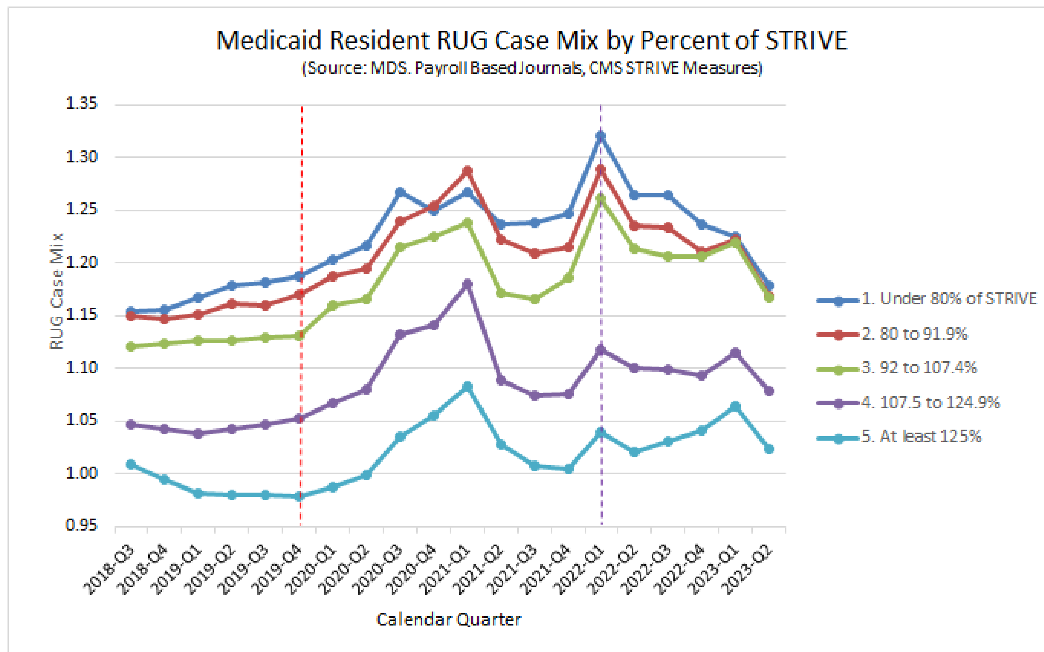

Figure 20. Medicaid Resident RUG Case Mix by Percent of STRIVE Measures

This same comparison over time is also presented using PDPM case mix and the results are shown in Figure 21 below. As with the RUG case mix, the PDPM measurement also shows that higher staffed facilities also tend to have residents with lower PDPM case mix. Nevertheless, as with the analysis of case mix v. Medicaid utilization above, these comparisons of case mix v. staffing reveal a drop in RUG case mix indices over time for the least-staffed facilities, while the PDPM case mix for these facilities does not fall.

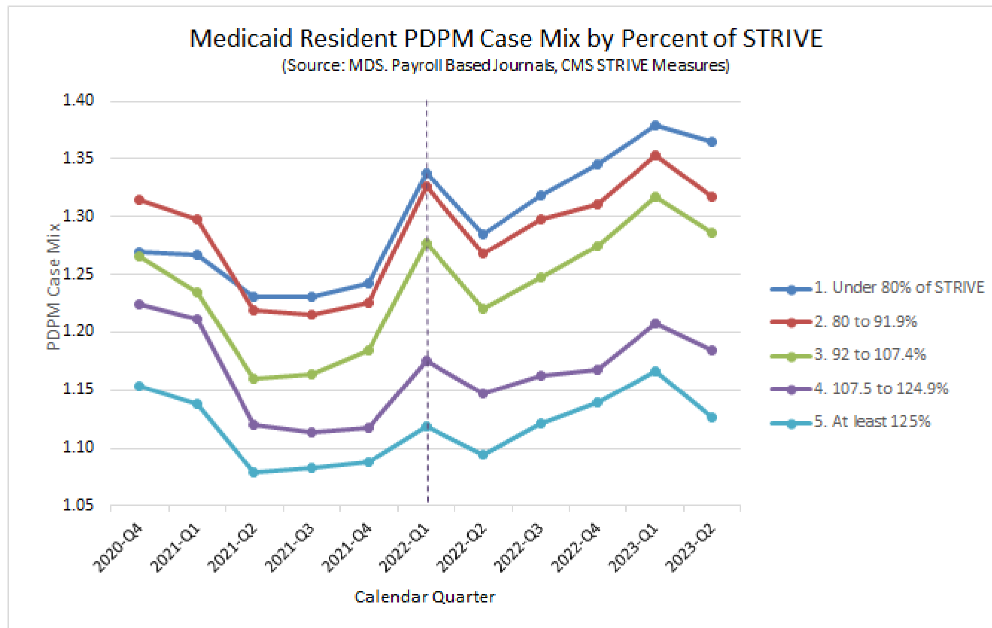

Figure 21. Medicaid Resident PDPM Case Mix by Percent of STRIVE Measures

VII. Shifts in Cost Coverage

Introduction

Defining nursing facility costs in a way that imparts meaning when compared to revenue for a specific group of residents is difficult, and target ratios developed for such a purpose can be subjective. With that said, studying patterns in these ratios can, at a minimum, help us better understand the reform's absolute and distributional impact. State Medicaid programs are no longer obligated to pay the "cost" of nursing facility care, and the state statute no longer articulates Medicaid payment formulas in direct relationship to cost, but as the majority payor in Illinois and as the dominant payor for nursing facilities serving mostly Medicaid residents, the state seeks to provide a sustainable revenue source for high quality care. In the development of the state's 2022 reform the state published analyses relying on an HFS accounting of estimated net income that considered reported costs and revenue, with and without proposed reforms, and adjusted for self-payment by owners, i.e., nursing facility payments to financing, administrative, and operating companies owned by parties related to the nursing facility owners. This report estimates nursing facility cost in a similar manner, including a case mix adjustment intended to identify facility cost per day for care of Medicaid residents, which is generally lower than cost of care for more short-term and rehabilitation-intensive Medicare residents.

Methodology

Data Limitations

Measures provided in this section are limited by the time delay that exists in receiving nursing facility cost reports. Cost reports are submitted once per year after each facility reaches their fiscal year end. For this report, cost reports with facility fiscal year end in 2022 were used. Approximately 85% of nursing facilities in Illinois have a fiscal year that aligns with the calendar year, so their included cost reports cover dates of service through December 31, 2022. Another 6% have a fiscal year end between July 1st and November 30th, and the remaining 9% have a fiscal year end prior to July 1st. Thus, at most the nursing facility cost data available for this report overlaps with only the first six months of the payment reform. An inflationary index could be applied to estimate calendar year 2023 costs, but this would not account for the cost increases incurred by facilities through increased staffing in response to the payment reform. As a result, this chapter does not attempt to estimate facility cost beyond the end of each facility's 2022 cost report. Future reports examining the impact of the payment reform will have cost data with a greater overlap to services reimbursed under the payment reform.

Given the cost report data limitations, claim data used for the cost coverage calculations summarized in this chapter include dates of service between July 1, 2018 and each facility's 2022 fiscal year end. Graphs below which include SFY 2023 (July 1, 2022 through June 30, 2023) data include a little less than half of a full year of claim volume. An asterisk (*) is placed next to the SFY 2023 labels on each graph to highlight this fact.

Cost Coverage Definition and Calculation

This section of the report uses data from Medicaid cost reports, provider assessment tables, MDS records, claims data, and the Medicaid RUG relative weight tables. This information is used to calculate various metrics, including the ratio of Medicaid payment to nursing facility cost. The analysis also incorporates changes in nursing home assessments. The goal in examining these multiple factors is to better understand nursing facilities' financial status in isolation and in

comparison, to various Medicaid program objectives such as sufficient staffing and high-quality equitable care.

Medicaid cost coverage is a comparison of Medicaid reimbursement to nursing facility cost for care of Medicaid residents, as demonstrated in Equation 1. Cost coverage is represented by the ratio of Medicaid reimbursement to nursing facility cost. The analysis in this section shows numbers generally between 0.70 and 1.20.

Equation 1. Cost Coverage Formula

$$Cost\ Coverage = \frac{Medicaid\ Payment}{Nursing\ Facility\ Cost}$$

Nursing facility cost is an estimate of cost for care of Medicaid residents in which all payor costs are retrieved from Medicaid cost reports; all payor costs are split into direct care and non-direct care portions; the direct care portion of all payor costs are case mix adjusted; and the adjusted direct care portion is added to the unadjusted non-direct care portion. The unadjusted non-direct care portion includes the provider assessment amount. Case mix adjustment uses an adjustment factor equal to the ratio between Medicaid and all-payor RUG[38] case mix, as demonstrated in Equation 2.

Equation 2. Adjustment Factor Formula

$$Adjustment\ Factor\ = \frac{Medicaid\ RUG\ Case\ Mix}{All\ Payer\ RUG\ Case\ Mix}$$

Total nursing facility cost is divided by total resident days to get average nursing facility cost per day for Medicaid residents. This value is calculated for each facility cost report and applied to the number of Medicaid days from claim data, resulting in “Nursing Facility Cost” shown as the denominator in the Cost Coverage formula above in Equation 1 above.

The cost reports include comprehensive nursing facility costs for all residents' care, without specifying costs for Medicaid residents. In most facilities, the average cost per day for all residents is higher than that for Medicaid residents, as the latter typically require less intensive healthcare and rehabilitation services. The application of the case mix adjustment factor, as detailed earlier, ensures a more accurate estimation of nursing facility costs for Medicaid residents.[39]

To further clarify how the adjustment factor leads to greater accuracy in the cost coverage ratio, consider Equation 3:

Equation 3. Cost Coverage Formula

$$Nursing\ Facility\ Cost\ \ = (Direct\ Care\ Cost)\ X\ (Adjustment\ Factor) + (Non\ Direct\ Care\ Cost)$$

[38] RUG case mix was used instead of PDPM case mix because RUG code assignments were available on the MDS records back to the beginning of the timeframe covered in this report, July 1, 2018, whereas PDPM code assignments were only available on MDS records back to October 1, 2020.

[39] The case mix adjustment applied to estimate average cost of care for Medicaid residents follows a method presented by the Medicaid and CHIP Payment and Access Commission (MACPAC) in an issue brief dated January 2023 and entitled, “Estimates of Medicaid Nursing Facility Payments Relative to Costs”.

This third formula demonstrates the impact of the adjustment factor on the cost coverage ratio, providing a more accurate reflection of the actual costs incurred for Medicaid residents.

Nursing facility cost reports used in this analysis include those for facility fiscal year ends between 2017 and 2022. Medicaid claim data used for this section had dates of service spanning a four-and-a-half-year period between July 1, 2018, and December 31, 2022. Cost on claims with dates of service in timeframes for which cost report information was not available was calculated using cost per day values from the most current cost report adjusted for inflation to the date of service on the claim. The inflation adjustment is described in Equation 4 below.

Equation 4. Inflation Adjustment to Cost Formula

$$Adjusted\ NF\ Cost\ Per\ Day\ = NF\ Cost\ Per\ Day\ X\ (\frac{Inflation\ Index\ at\ Last\ Day\ of\ Service}{Inflation\ Index\ at\ MidPoint\ of\ Most\ Current\ Cost\ Report})$$

Findings

As a result of the 2022 reforms, Medicaid cost coverage increased by 28% between SFY 2022 and SFY 2023. This increase is net of significant state investment in nursing facility reimbursement, along with increases in nursing facility cost from inflation and an increase in the nursing home provider assessment. In SFY 2023 Medicaid nursing facility reimbursement increased by 25%, from $2.67 billion to $3.34 billion[40] when using identical utilization. Illinois nursing facility cost for care of Medicaid residents increased by 2%[41] per day between SFY 2022 and 2023 when including the new provider assessment cost. Specifically, the provider assessment increased by 86% from $161 million in SFY 2022 to $298 million in SFY 2023. This increase reflects less than a full year's implementation of the rate increases included in the 2022 reforms but may also reflect lower-than-expected counts of taxable days. Potential explanations for reduced collections may include lower-than-expected average census (in the wake of the pandemic) and higher-than-expected designation of resident days into un-taxed categories such as those paid by managed care plans that cover individuals eligible for Medicare and Medicaid. If collections continue to lag predicted amounts, further study, potential improvements in nursing facility reporting, and/or review of statutory designations of taxable resident days may be warranted but are beyond the scope of this interim report.

Trends in Medicaid aggregate nursing facility cost coverage over the last four and a half years is depicted below Figure 22.

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[40] Calculated by pricing SFY 2023 claims using both SFY 2022 Q4 and SFY 2023 per diem rates.

[41] Includes only costs for services provided through the end of December of 2022.

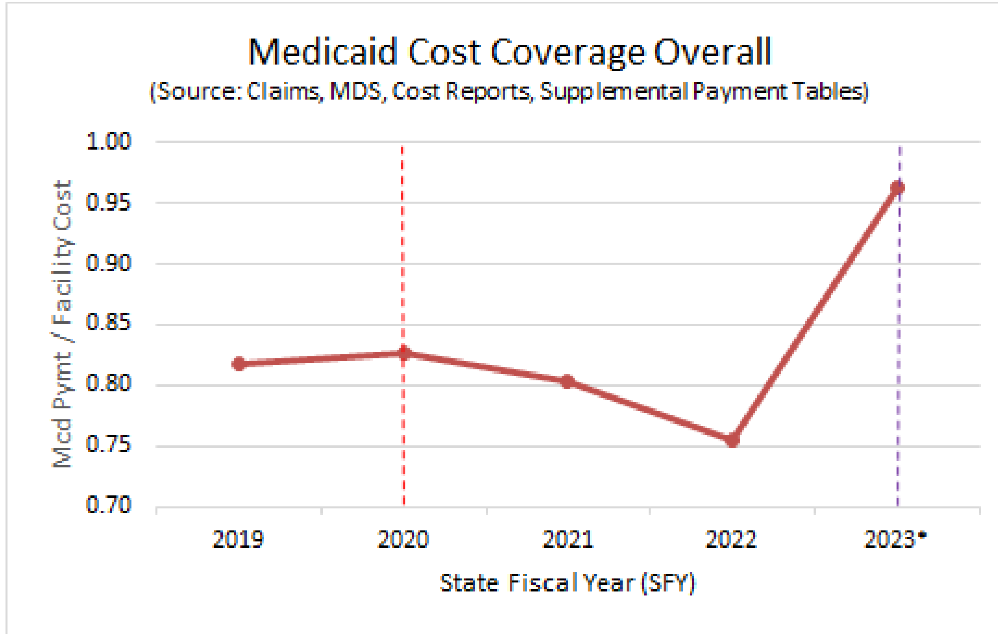

Figure 22. Medicaid Cost Coverage Overall

The trend shows cost coverage decreasing in SFY 2021 and 2022 followed by a sharp increase in SFY 2023. The cost coverage decreases in 2021 and 2022 are due to nursing facility cost increases without corresponding Medicaid payment increases. In SFY 2023 nursing facility costs increased, including increases through the new provider assessment, and were met with payment increases far exceeding increases in cost. Figure 23 shows a comparison of Illinois nursing facility Medicaid cost change versus payment change in the last four and a half years.

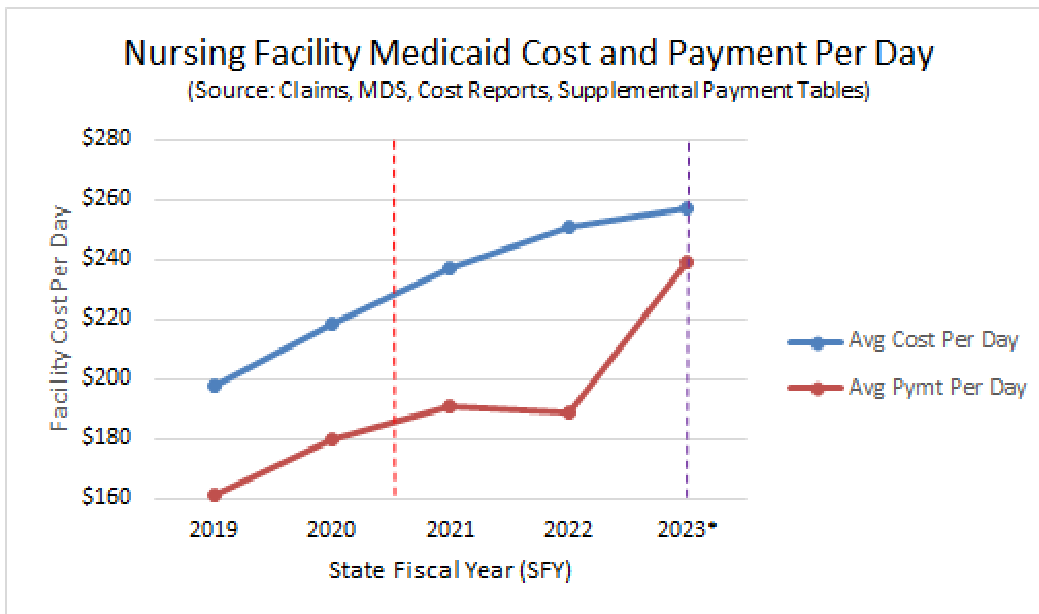

Figure 23. Nursing Facility Medicaid Cost and Payment Per Day

As mentioned previously, one aim of the 2022 reform was that nursing facilities would become more willing to accept Medicaid residents. Figure 24 below shows cost coverage based on Medicaid utilization. While differences in cost coverage across Medicaid utilization categories

did not appear to change between SFYs 2022 and 2023, all categories experienced large improvements of about 10%. Cost coverage is lowest for facilities that accept the fewest percentage of Medicaid residents but rose to nearly 80% in FY 2023 With the methodology introduced in this interim report, cost coverage for Medicaid payments to facilities with the highest percentage of Medicaid residents appears to have risen to at least 105%.

Cost coverage for Medicaid payments to facilities with the highest percentage of Medicaid residents appears to have risen to at least 105%.

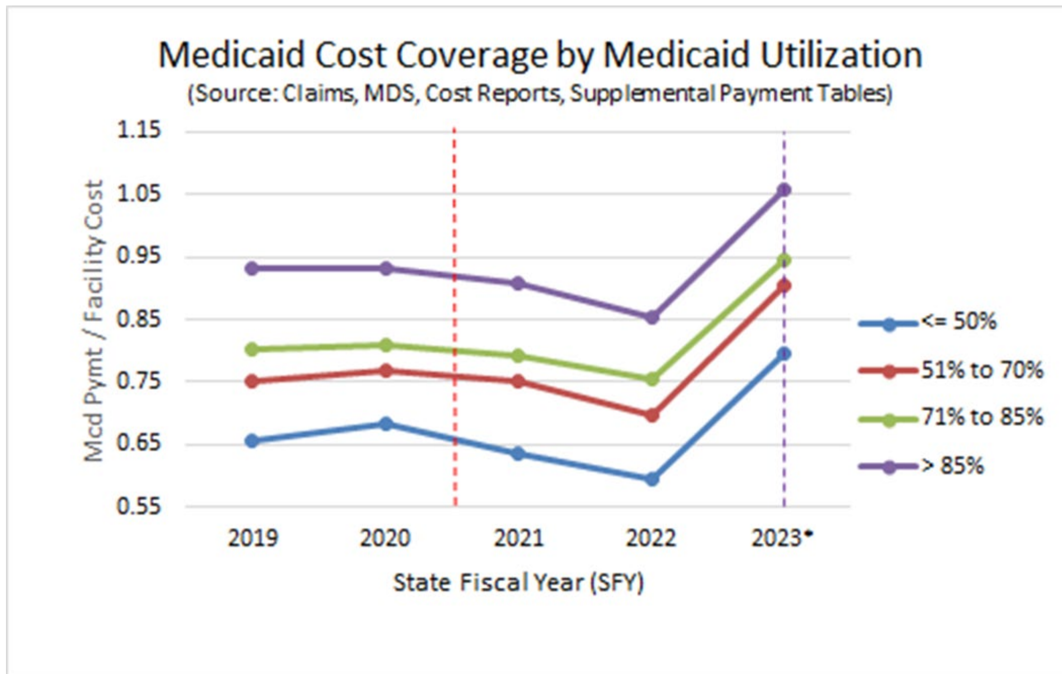

Figure 24. Medicaid Cost Coverage by Medicaid Utilization

It's important to note in this review of cost coverage that Medicaid's objectives are centered on ensuring sufficient equitable access to high quality care for its members. Cost coverage of 100% or more is neither a sufficient condition, nor in some cases is it even necessary to ensure access for Medicaid's consumers. This may help explain why Congress eventually removed the statutory requirement for Medicaid payments to nursing homes to meet a facility's costs. Many factors contribute to facilities participation in Medicaid and its acceptance of new Medicaid-funded residents. For example, as shown in Figure 25 below, Illinois nursing facilities that accept lower percentages of Medicaid residents are more costly, but these facilities are also likely to receive higher average payments for their (relatively larger) Medicare and private-pay resident populations, and this could increase these facilities' capacity to accept some Medicaid residents.

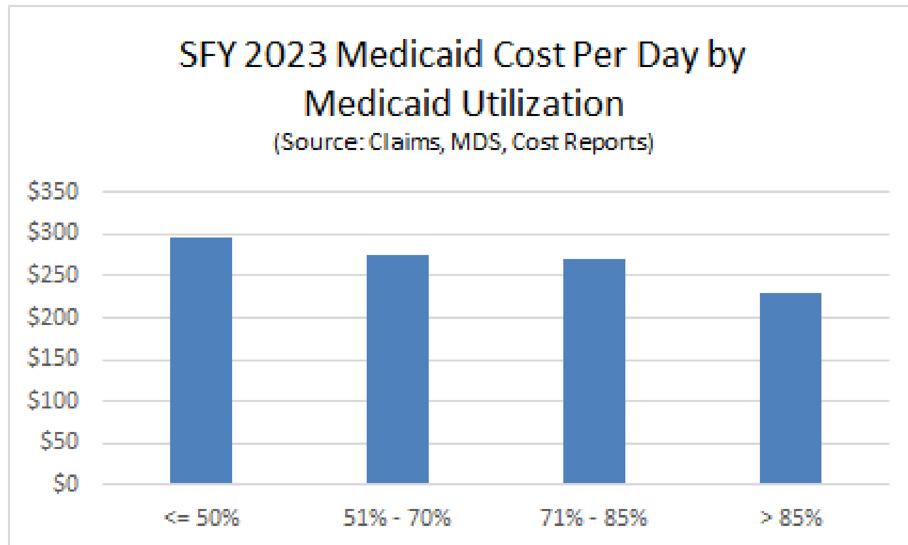

Figure 25. State Fiscal Year 2022 Medicaid Cost Per Day by Medicaid Utilization

VIII. Health Equity – Residents who are People of Color

Introduction

As the foundation of HFS' quality strategy[42], health equity is the ultimate goal for quality improvement efforts across all HFS programs and populations[43]. To that end, understanding the racial distribution of nursing facility residents across the state, and analyzing nursing facility characteristics such as staffing and quality through an equity lens, is essential. The 2021 report found that both Medicaid and racial and ethnic minorities were not evenly distributed across Illinois nursing facilities, and that residents of color were nearly twice as likely to reside in under-staffed facilities.[44] From an equity perspective, payment reform was intended to improve staffing and quality performance in facilities that serve higher numbers of Medicaid and residents of color. Moreover, a byproduct of the reforms' design would be to encourage other facilities to accept and care for more Medicaid residents and residents of color.

Methodology

In examining health equity, the analysis utilized data from Illinois cost reports and the Minimum Data Set (MDS) assessments. For defining race/ethnicity, residents were categorized as Residents of Color based on the following criteria: inclusion of any race or ethnicity other than "White" (such as "Black or African American", "Hispanic or Latino", "American Indian or Alaskan Native", "Asian", and "Native Hawaiian or Other Pacific Islander"), and inclusion of residents who did not specify any race/ethnicity. This approach was adopted to ensure a comprehensive representation of residents of color, particularly considering the potential underreporting or non-specification of race/ethnicity data in cases where the information might be uncertain. Residents were categorized as "White" only if they exclusively identified as such, without any other race/ethnicity indicated. The denominator used in characterizing racial and ethnic composition includes all residents with an MDS assessment for the respective quarter, and the facility count is based on those submitting MDS data. The total count of facilities included in the analysis was based on those that submit MDS data. Facilities participating in Medicaid as well as facility ownership were identified from submissions of Illinois cost reports. Additionally, Health Service Area (HSA) regions were classified into two categories, with facilities in the multi- county Chicago region treated as one distinct region and facilities in all other counties in Illinois grouped into the non-Chicago category.[45]

Findings

Statewide, there are now about twice as many White residents than residents of color in Illinois nursing facilities, as portrayed in Figure 26 but that ratio has fallen substantially over the last five years, despite the COVID pandemic's (initially) disproportionate impact on residents of color. More detailed analyses below indicate that this increase in the proportion of resident comprised of people of color applies across various sub-groupings of facilities, e.g., by Medicaid utilization and size. Though beyond the scope of this interim report, the recent and broad-based increase

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[42] https://hfs.illinois.gov/content/dam/soi/en/web/hfs/sitecollectiondocuments/il20212024comprehensivemedicalprogramsqualitystrategyd1.pdf

[43] https://hfs.illinois.gov/content/dam/soi/en/web/hfs/sitecollectiondocuments/il20212024comprehensivemedicalprogramsqualitystrategyd1.pdf

[44] HFS' "A Comprehensive Review of Nursing Home Payment with Recommendations for Reform", September 2021, page 45-46.

[45] https://www.dhs.state.il.us/page.aspx?item=55223

in the proportion of the state's nursing facility population comprised of people of color bears note and merits further study and attention, as equity in access to nursing home care should be balanced with equity in access to other forms of long-term care and equity in the underlying need for long-term care.

The recent and broad-based increase in the proportion of the state's nursing facility population comprised of people of color bears note and merits further study and attention.

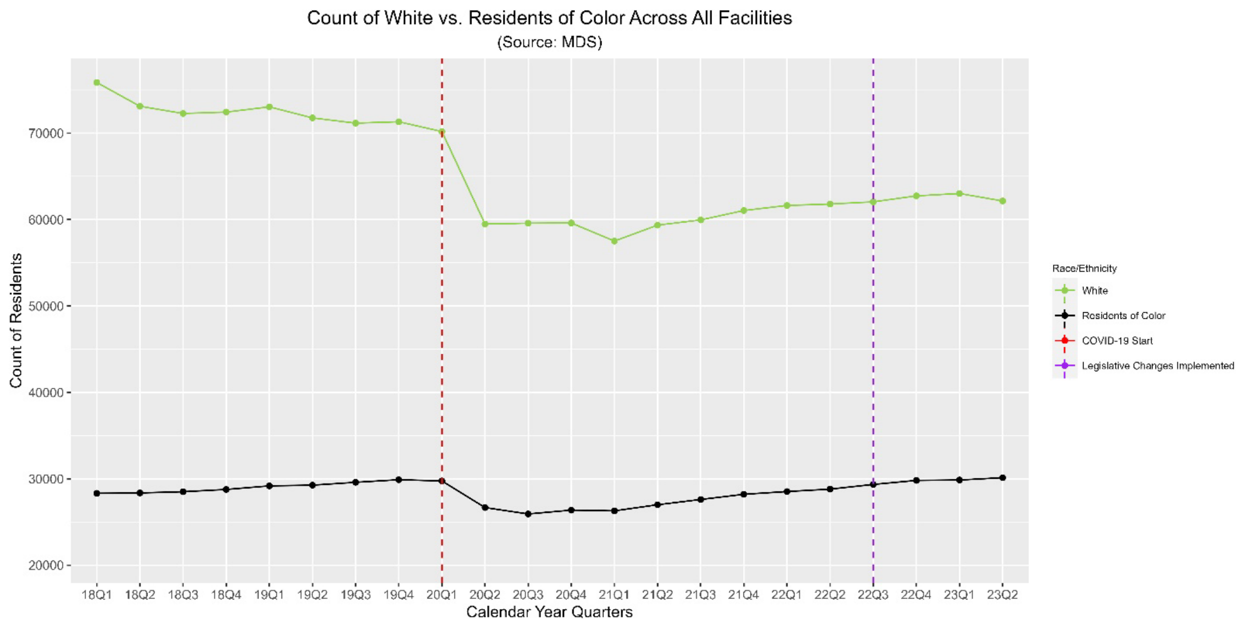
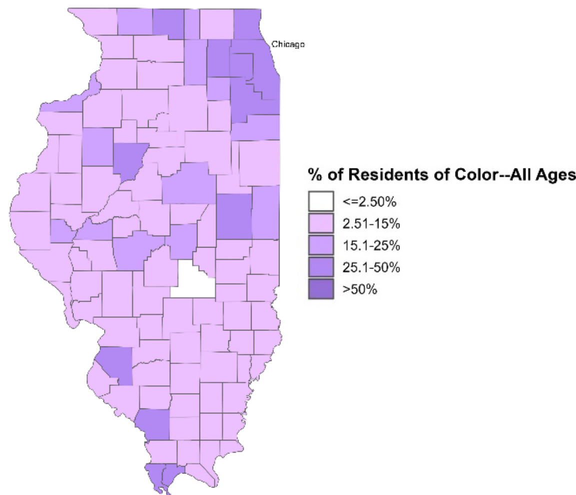


Figure 26. Count of White vs. Residents of Color Across All Facilities

Because the racial distribution across Illinois is not evenly distributed across the state, with residents of color more often living in urban areas, it is not surprising that nursing facilities in those geographies would have higher percentages of residents of color. Figure 27, below, shows the percent distribution of residents of color in Illinois' general population on the left, and on the right the percent distribution of residents of color in Illinois nursing facilities, and reveals similar – but not equivalent -- concentrations of minority residents clustered in the Chicago, East St. Louis, Springfield, and smaller urban centers such as Peoria and Champaign. The comparison below is illustrative, though preliminary, and the differences observed may merit further attention and/or more sophisticated analyses.



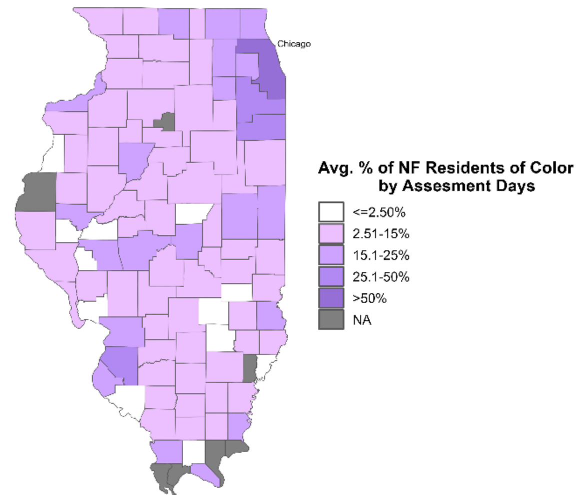


Figure 27. People of Color Distribution of Residents Overall vs. Nursing Facility

Looking at racial distribution at the facility level, there is at least some modest evidence of increasing equity in the distribution of residents of color across nursing facilities, as shown in Figure 28 below. For reference, residents of color comprised 34% of Illinois' statewide nursing facility population in calendar year 2022, and while residents of color remain unevenly distributed across nursing homes, there appears to have been modest movement towards that average in the last two years. In the fourth quarter of calendar year 2020, 53 Illinois nursing facilities had no residents of color, but in fourth quarter of calendar year 2022 that number had dropped to 38. Similarly, in fourth quarter of calendar year 2020 63% of Illinois nursing facilities had less than 20% residents of color. By the fourth quarter of calendar year 2022 that figure had fallen to 60%. Facilities with between 20-50% residents of color also increased during that timeframe (from 23% to 25%) while the share of facilities where more than half of residents were people of color remained virtually unchanged (103 v. 101).

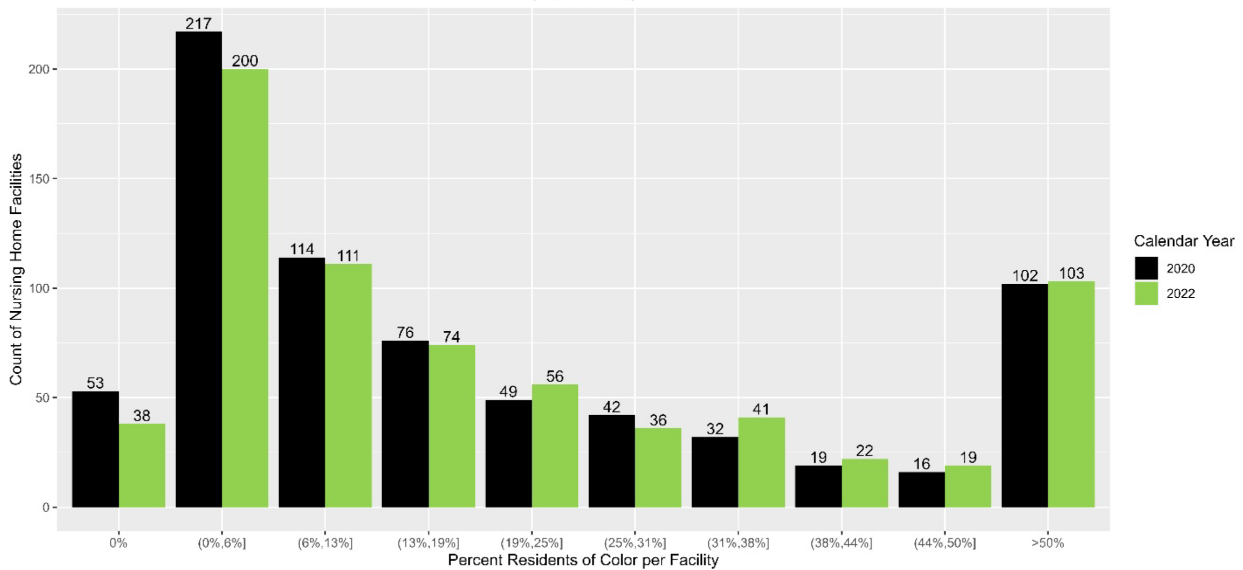


Figure 28. Distribution of Residents of Color Across Facilities

Nursing facilities with high Medicaid utilization have the highest percentage of residents of color by a wide margin. There has been a small but steady increase in the number of residents of color in facilities with low to medium Medicaid utilization since 2020; however, the change is not significant in terms of demonstrating a true shift in distribution. Figure 29 shows the change in percent of residents of color, normalized by assessment days across calendar year quarters beginning with first quarter of calendar year 2018.

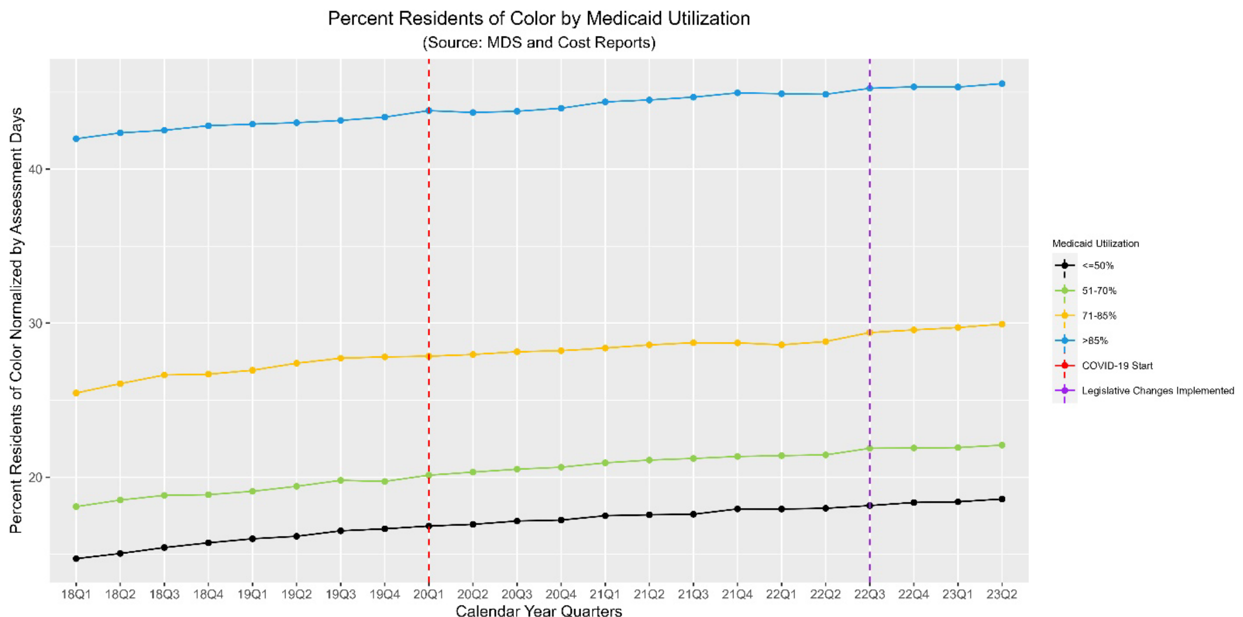


Figure 29. Percent Residents of Color by Medicaid Utilization

When looking at distribution based on facility size, residents of color are disproportionately

found in larger nursing facilities as shown in Figure 30. This dynamic and its consequences for quality-related issues such as room crowding, were addressed in more detail in HFS' 2021 Report to the Legislature.

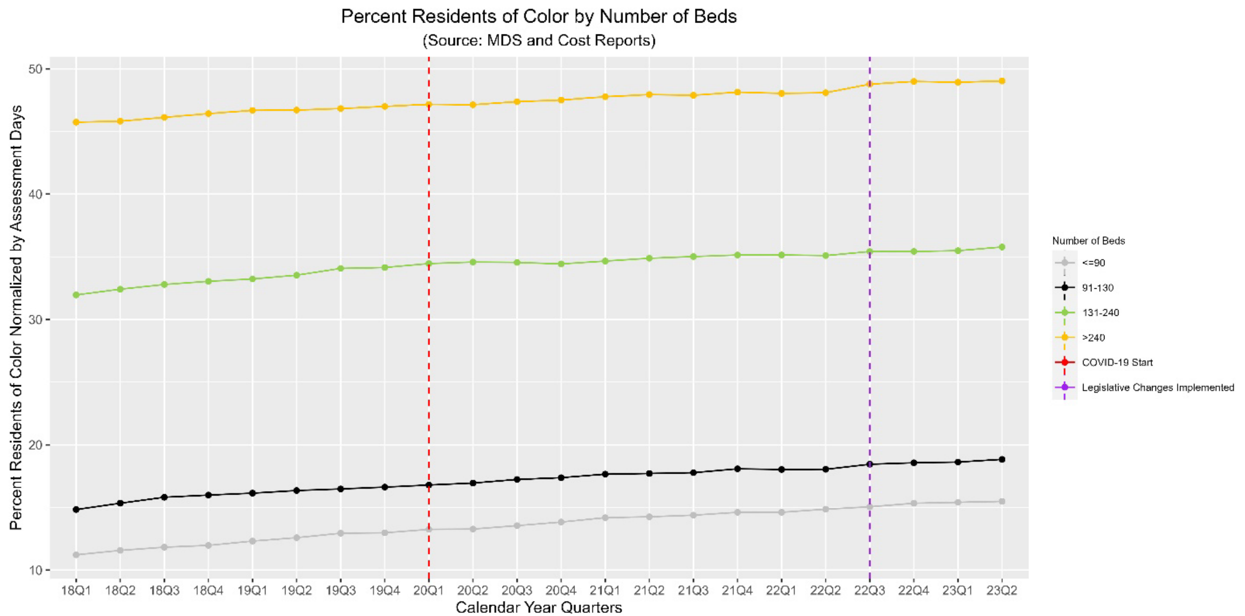


Figure 30. Percent of Residents of Color by Number of Beds

IX. Illinois Nursing Home Staffing

Introduction

How the nursing home workforce has changed since Illinois' 2022 Medicaid rate reforms

Illinois consistently ranks at the bottom nationally in terms of nursing staff hours per resident in its nursing facilities. In 2019, nearly 50% of the nation's worst-staffed 100 nursing homes were located in Illinois. While the COVID-19 pandemic intensified these staffing challenges, these issues predated the pandemic.

Staff Time Resource Intensity Verification (STRIVE) Methodology

HFS utilizes the Staff Time Resource Intensity Verification (STRIVE) methodology, developed by the Centers for Medicare and Medicaid Services (CMS). STRIVE sets benchmarks for the requisite number of nursing employees (RNs, LPNs, and CNAs) per nursing home resident, derived from national staffing surveys conducted about fifteen years ago.[46] Opinions differ nationally on whether STRIVE averages should serve as minimum standards or targets. In Illinois, the term "STRIVE target" is a reference point for staffing levels but not a threshold at which incentives start or stop; rather, the reforms reward continuous performance improvement in staffing, both before and after a facility has reached the target.

Performance Against STRIVE Targets

Using the STRIVE methodology, we can evaluate the performance of individual nursing facilities in relation to established staffing targets. Prior to legislative reforms in the first quarter of 2022, many nursing homes in Illinois were already exceeding the STRIVE targets. However, facilities with a high percentage of Medicaid utilization disproportionately fell far below these benchmarks, a key concern in state policy.

In 2022 Q1, before the adoption of the reforms, Illinois nursing facilities achieved an average of 89% of the STRIVE targets. This average, however, masked significant disparities among different staff roles. Certified Nursing Assistants (CNAs), who form the majority of the nursing staff, were particularly underrepresented. CNAs' staffing levels were at just 83% of the STRIVE targets - the lowest in the nation, with the next-lowest state recording 96%. This significant gap in CNA staffing appears to be a primary factor in the state's overall staffing deficit.

Research indicates that nursing homes with frequent below-average nurse or CNA staffing levels encounter several challenges:[47]

- Increased hospitalizations and emergency room visits,
- Decline in residents' daily living activities and mobility,
- Higher need for antipsychotic medication,

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[46] CMS recently announced plans to replace the STRIVE targets with a new approach to measuring nursing home staffing performance. If finalized, this would require a translation of the staffing ratio used in Illinois STRIVE-based staffing incentive to remain consistent with published CMS metrics.

[47] Mukamel DB, Saliba D, Ladd H, Konetzka RT. Association of Staffing Instability With Quality of Nursing Home Care. JAMA Netw Open. 2023;6(1):e2250389. doi:10.1001/jamanetworkopen.2022.50389

- Lower facility deficiency scores from CMS, reflecting potential risks to resident health and safety.[48]

Furthermore, inadequate nurse-to-patient ratios correlate with heightened medical errors, staff dissatisfaction, and adverse patient outcomes.[49,50,51]

In Illinois, the disparity in staffing levels based on Medicaid utilization is pronounced. In 2022 Q2, facilities with over 50% Medicaid utilization usually fell short of meeting the STRIVE targets, averaging only 82%. In contrast, facilities with less than 25% Medicaid utilization achieved, on average, 137% of these targets. This discrepancy had particularly severe effects on residents of color.

Residents of color were nearly twice as likely to be in understaffed facilities. This demographic suffered disproportionately during the first wave of the COVID-19 pandemic in 2020, with an estimated 40% higher rate of COVID deaths in nursing facilities compared to White residents. While mortality rates tended to be consistent across all races and ethnicities within any given facility, the higher concentration of residents of color in under-resourced and high-risk facilities was a significant factor in the statewide disparity statistics.

Opportunity: Transforming the Nursing Home Labor Market through Medicaid

Medicaid plays a crucial role in the Illinois nursing home sector, supporting approximately 45,000 residents, or nearly 70% of the total nursing home population. As the primary funder, the Medicaid program, administered by HFS, now disburses over $3 billion annually in service payments. Approximately 650 of the 700+ operating nursing facilities in Illinois are Medicaid providers.

This level of spending and reach positions the state to significantly influence both staffing and care practices in nursing facilities. Accordingly, the state has an opportunity for the state to use the program not merely as a mechanism for individual client benefits, but as a strategic tool for labor market transformation within the nursing home sector and, potentially, across healthcare more broadly.

Growing participation in the CNA pay scale incentive program may further such transformation. It is important to note that while the pay scale incentive is voluntary, the structure and magnitude of the funding is strategically designed to motivate nursing homes to participate. This approach is based on the premise that substantial funding incentives would make non-participation less viable, especially in a competitive healthcare labor market. Indeed, since the

[48] Centers for Medicare & Medicaid Services (CMS). Special Focus Facility (SFF) Scoring Methodology. Retrieved December 29, 2023, from https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/CertificationandComplianc/downloads/SFFSCORINGMETHODOLOGY.pdf

[49] Shin S, Park JH, Bae SH. Nurse staffing and nurse outcomes: A systematic review and meta-analysis. Nurs Outlook. 2018 May-Jun;66(3):273-282. doi: 10.1016/j.outlook.2017.12.002. Epub 2018 Feb 26. PMID: 29685321.

[50] AdventHealth University. “Nurse Staffing and Patient Outcomes: Strategies for Improvement.” Blog. December 29, 2021. Retrieved December 29, 2023, from https://www.ahu.edu/blog/nurse-staffing-and-patient-outcomes.

[51] Driscoll A, Grant MJ, Carroll D, Dalton S, Deaton C, Jones I, Lehwaldt D, McKee G, Munyombwe T, Astin F. The effect of nurse-to-patient ratios on nurse-sensitive patient outcomes in acute specialist units: a systematic review and meta-analysis. Eur J Cardiovasc Nurs. 2018 Jan;17(1):6-22. doi: 10.1177/1474515117721561. Epub 2017 Jul 18. PMID: 28718658.

program's inception in July 2022, the number of facilities choosing to accept funding to increase the pay of experienced (and promoted) CNAs has been on the rise. As of July 1, 2023, 458, or 68% of the 671 Illinois nursing facilities enrolled in Medicaid at that time, were fully participating in the CNA pay scale incentive program, as illustrated in Figure 31 below.[52] As expected given that the funding is provided on a per-resident basis, participation was highest among facilities with the highest percentage of Medicaid residents: 99% of facilities with at least 85% Medicaid utilization had chosen to participate. Also, by the third quarter of 2023 at least 85% of Medicaid residents statewide were in nursing homes that had signed up for the program. This trend indicates a growing recognition of the program's benefits in enhancing the quality of care through improved staffing, including retention, and may also indicate Medicaid's influence on the CNA labor market, as facilities continue to recalibrate the costs of participation against potentially shifting wage expectations by the state's CNAs.

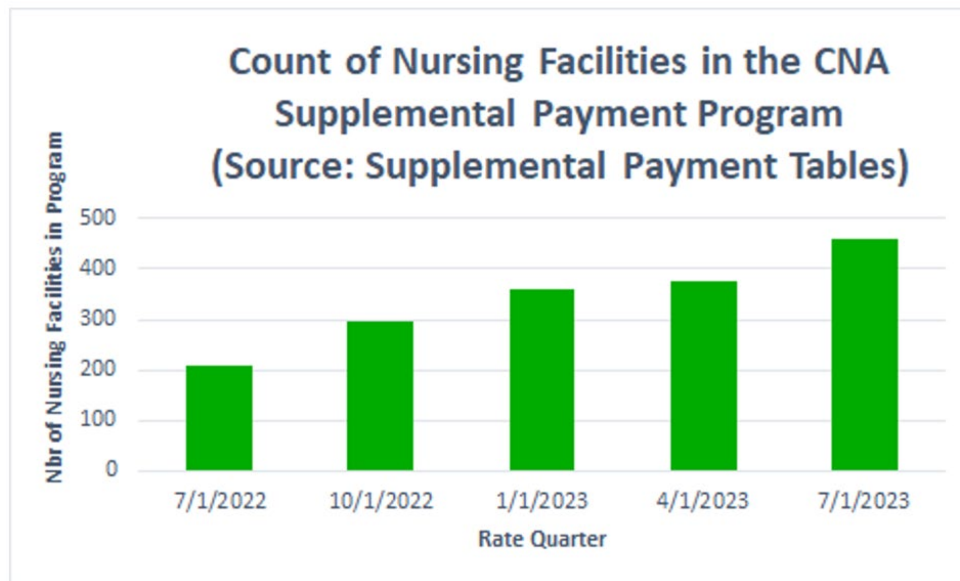

Figure 31. Count of Nursing Facilities in the CNA Pay Scale Incentive Program

2022 Nursing Home Rate Reforms in Illinois

In May 2022, Governor Pritzker enacted significant legislation designed to leverage financial incentives for enhancing the healthcare labor market, particularly benefiting senior care. These policy reforms directed approximately $730 million (inclusive of federal matching) annually to nursing homes, linking most of these funds to specific staffing and care standards. Four staffing-related improvement opportunities included in the 2022 reforms are reiterated below.

1. **Rewarding Adequate Staffing Levels**: The reform stipulates that Medicaid will allocate a minimum of **$9.00** per resident per day to nursing facilities that achieve at least 70% of the STRIVE staffing target. Figure 32 shows how this rate rises incrementally as staffing levels improve. At maximum, a facility meeting at least 125% of the STRIVE target can receive up to $38.68 per resident daily, which is a substantial increase from the base rate for direct care. That is four times more than nursing facilities would receive at 70%

[52] The number of facilities that have signed up for, and ever have, participated in the CNA pay scale is now between 490 and 500, and this figure is thought to represent a better measure of current participation, with the difference of approximately 30+ facilities due to lags in facility compliance with quarterly administrative participation requirements.

of the STRIVE target and would represent a 40% addition to the base payment for nursing care. The reforms were developed with the expectation that nursing homes would move up this curve mainly by hiring CNAs, who, as mentioned, account for most of the STRIVE gap in Illinois. Results presented below validate that expectation.

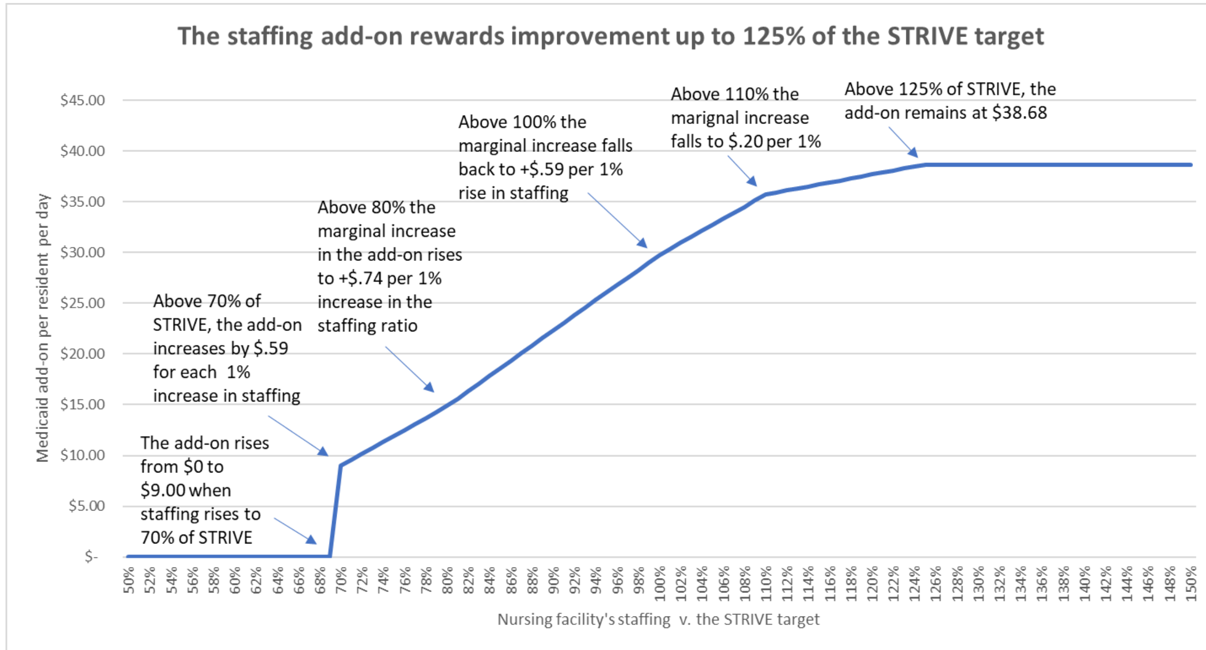

Figure 32. Relationship between Nursing Facility Staffing and STRIVE Payments

2. **Enhancing Worker Compensation**: The policy also includes provisions for increasing wages for Certified Nursing Assistants (CNAs). Experienced CNAs can earn up to an additional $6.50 per hour, with Medicaid covering a portion of this increment. This initiative is projected to fund nearly half of all CNA wages statewide and aims to create a more robust and competitive labor market for these critical workers. Nursing homes could choose to provide larger pay increments for years of experience, but the minimum pay scale required for nursing homes to participate in this subsidy program--and the experience-based pay increases Medicaid would subsidize--are shown in Table 11.

Table 11. CNA Experience Pay Scale Subsidies

Years of CNA Experience	Wage Increase
Less than 1 year	$0
1 year	$1.50
2 years	$2.50
3 years	$3.50
4 years	$4.50
5 years	$5.50
6 years or more	$6.50

This funding mostly goes to CNAs in nursing facilities, but the new subsidy program aims to support CNAs across the healthcare industry, creating a pay scale ripple effect that would attract and retain more of these workers broadly. The effect would be an expanded CNA labor pool.

3. **Promoting Accurate Coding**: HFS has long paid nursing homes based on how they classify patient needs and the risk level for incurring costs. The 2022 reforms maintained a risk-based approach to nursing payments but added an incentive tied to staffing levels. Under the new approach, if a facility codes patient needs as severe, rather than moderate, the facility would need to hire more staff to maintain the dollars it receives from the STRIVE incentive. This change mitigates the previous incentive to upcode patient needs to exaggerate their acuity. As mentioned above, the staffing incentive is graduated encouraging nursing homes to align staffing levels with resident needs to qualify for incentives ranging from $0 to $38.68 per resident per day.[53]
4. **Increasing General Rates**: Apart from performance-related increases, the reforms also included broad increases in the base rate for nursing care to help offset higher nursing home costs, including the underlying costs of all nursing home labor.

Findings

Staffing Progress

Since Governor Pritzker signed the reforms into law, there has been a strong uptick in staffing levels across nursing homes. Key metrics such as staffing ratios, nurse hours, and equity have shown meaningful improvement. The second quarter marked a turning point. As illustrated below, the data shows gains in a variety of areas between the first quarter of 2022 Q1 and the third quarter of 2023 Q3, with the STRIVE minimum staffing targets providing the benchmark.

Improved Overall Staffing Levels

- The staffing ratio[54] increased by 11%, rising from 89% to 99% of the STRIVE targets within five quarters post-reform. This surpasses pre-pandemic levels, and the increase outperforms all other states.[55]
- Total nurse staffing hours, including those of RNs, LPNs, and predominantly CNAs, have increased by nearly 14% statewide, which is 2.5 times the national average growth of 5.4%.
- Despite the increase in total hours, the average workday length remained constant, indicating that the additional hours are likely due to increased CNA staff.
- Nurse turnover rates have improved, moving Illinois from 36th to 28th in national

[53] The Patient-Driven Payment Model (PDPM) replaces the previous Resource Utilization Groups (RUGs) model. Unlike RUGs, the PDPM removes rehabilitation from the risk calculation for the base payment. This alteration, along with the introduction of a substantial staffing incentive based on actual resident needs, aims to reduce the tendency towards upcoding, a practice where services are coded at a higher level than delivered, for increased reimbursement.

[54] This ratio represents the actual number of staff per resident divided by the STRIVE target number of staff per resident for each facility. The STRIVE target is determined by the measured needs of the residents of each nursing home, as described previously.

[55] The District of Columbia has improved slightly more, recently, but DC is still rebounding from a much larger pandemic-era decline. Illinois has fully rebounded from its pandemic-era decline.

rankings.

- This staffing ratio improvement did not result from a reduction in nursing home residents, as there was a 5.4% increase in the resident population. Figure 33 illustrates the comparison between resident census and staffing hours in Illinois versus the national average.

Total nurse staffing hours, including those of RNs, LPNs, and predominantly CNAs, have increased by nearly 14% statewide, which is 2.5 times the national average growth of 5.4%.

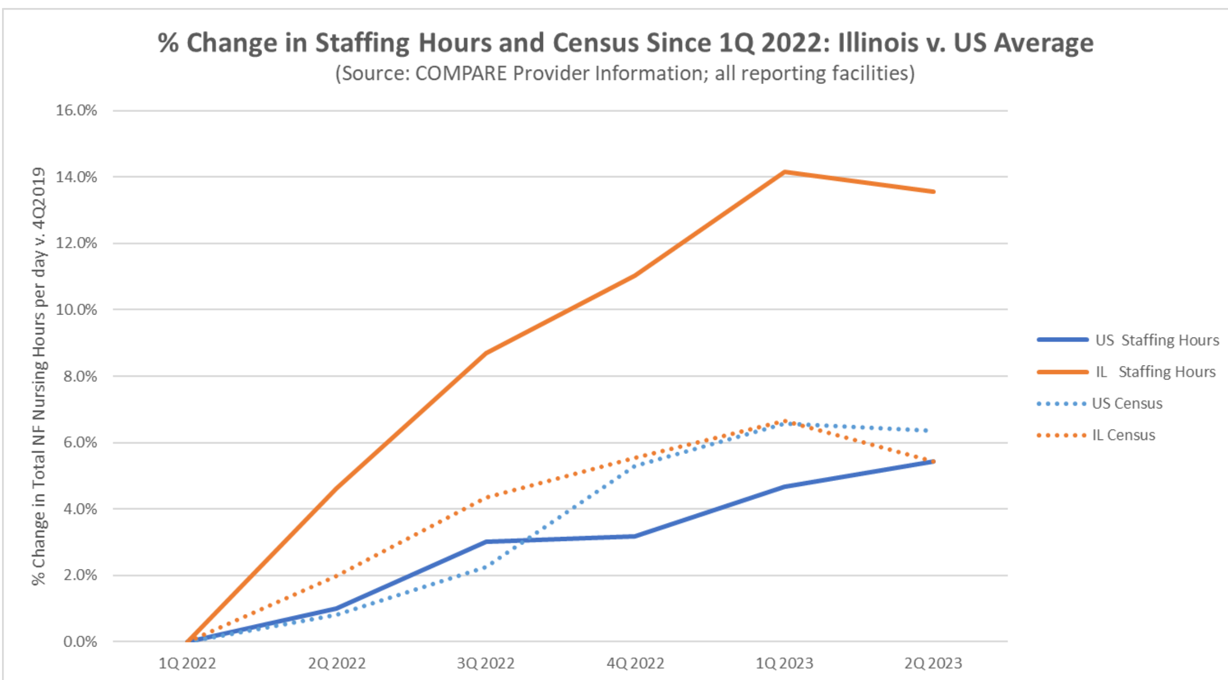

Figure 33. Staffing Hours vs. Census Levels since 2022 Q1

Advancements in Lower-Performing Facilities

- Facilities initially under 60% of the STRIVE target experienced remarkable growth, with staffing ratios improving from an average of 48% to 75%, a 27 percentage point or 56% increase.
- For homes between 60-70% of the STRIVE target, staffing ratios rose by 23%, as detailed in Figure 34 below.
- The count of facilities falling below 70% of STRIVE drastically reduced from 154 at the start of 2022 to just 53, marking a two-thirds decrease.
- Illinois, which had 46 of the nation's 100 worst-staffed nursing homes in Q2019 Q4, now has 18.

The count of facilities falling below 70% of STRIVE drastically reduced from 154 at the start of 2022 to just 53, marking a two-thirds decrease.

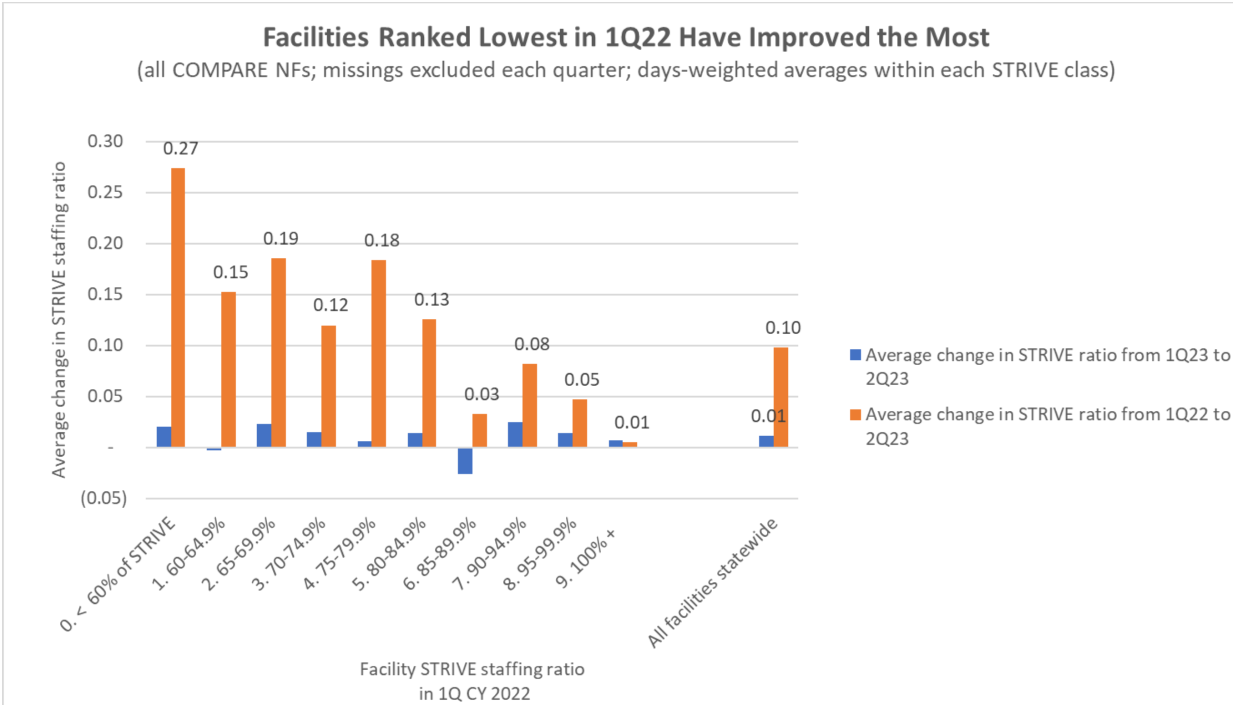

Figure 34. Change in STRIVE Ratios since 2022 Q1

Enhanced Equity

The 2022 nursing facility rate reforms have not only improved staffing levels in Illinois but also significantly advanced equity in staffing distribution across nursing homes. The following findings demonstrate this progress:

- **More Balanced Staffing Distribution**: An equitable distribution of staffing across nursing homes is now more evident. As mentioned above, the number of homes achieving less than 70% of the STRIVE target has decreased by nearly two-thirds, a direct indication of care quality, especially in previously under-resourced facilities.
- **Impact on High-Medicaid Facilities**: Nursing homes with at least 60% Medicaid utilization witnessed an average 15% rise in their staffing ratio. This increase from 78% to 90% of STRIVE targets marks substantial progress in facilities that were previously among the least staffed.
- **Focused Improvements in Diverse Facilities**: Staffing enhancements were even more significant in facilities with a higher percentage of residents of color. In nursing homes where at least half of the residents are non-White, the average staffing ratio improved from 69% to 82% of STRIVE targets, a 19% increase.
- **Contribution of CNAs to Staffing Increases**: Certified Nursing Assistants (CNAs) have been instrumental in these staffing improvements, accounting for 77% of the increase in the overall staffing ratio. This represents approximately 3,400 additional CNAs working in nursing facilities in 2023 Q2 compared to early 2022. The remaining 22% of the increase is attributable to additional RN and LPN hours. While there is no statewide STRIVE gap for RNs, discrepancies may exist in individual facilities.

Figure 35 shows the legislative reforms appear to have had a substantial impact, particularly in facilities with the highest Medicaid utilization (85-100%). From the 2022 Q1 to 2023 Q3, these

facilities saw their staffing ratio increase from 0.65 to 0.80. Similar upward trends in staffing ratios are observed in the 50-69% and 70-85% Medicaid utilization categories, demonstrating a widespread pattern of staffing improvements across various levels of Medicaid utilization but concentrated at the high end.

CNAs account for 77% of the increase in Illinois' staffing ratio. Approximately 3,400 more CNAs worked in Illinois nursing facilities in 2023 Q2 compared to 2022 Q1.

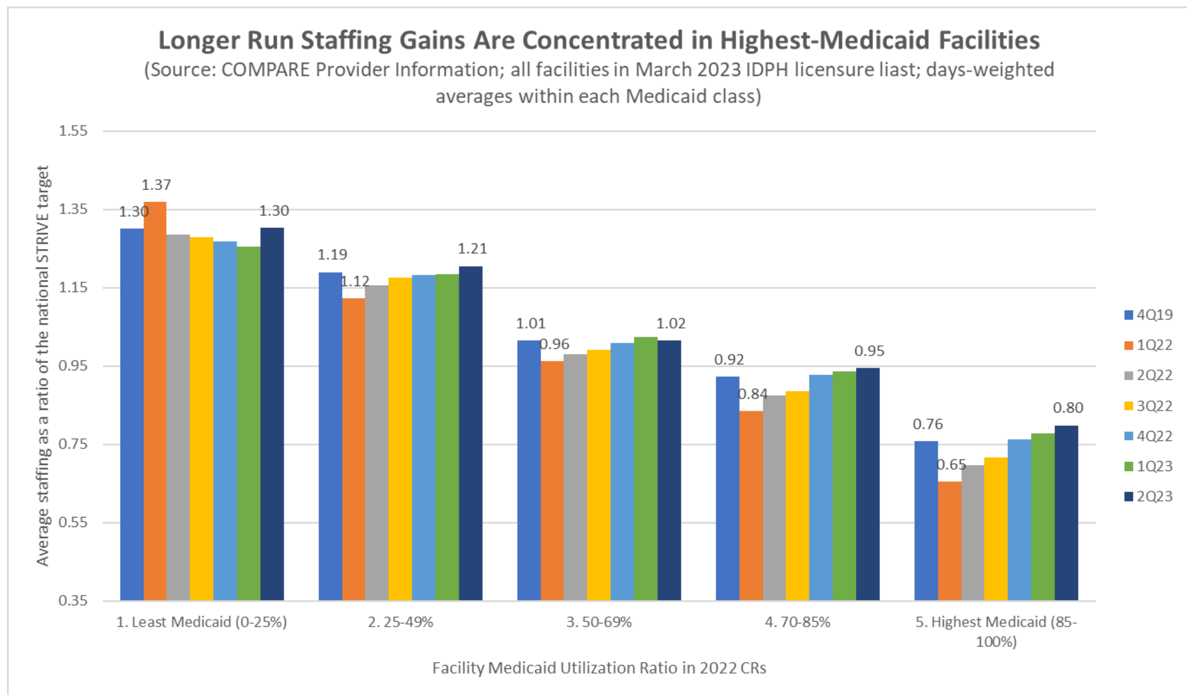

Figure 35. Improvements in Staffing Ratios by Level of Medicaid Utilization

CNA Wage Subsidies Impact

The impact of the new pay scale on CNA wage increases remains to be fully assessed. While initial participation in the subsidy program, particularly in the five-county Chicago area, was tentative, there has been a significant uptick in engagement as evident in Table 12. By 2023 Q3, the fifth quarter since the new pay scale was implemented, participation rates among nursing homes had risen to nearly 70%. Notably, the highest levels of participation have been in facilities with a larger proportion of Medicaid residents. With this added facility participation more than 20,000 CNAs are now receiving additional experiments and/or promotion pay increments that average nearly $4.50 per hour above entry level wages.

Table 12. Percentage of Facilities Participating in Wage Subsidies by Medicaid Utilization

% of Medicaid Utilization	% of Facilities Participating in Wage Subsidies
>85%	99%
70-85%	90%
50-69%	77%
25-49% Medicaid	52%
<25% Medicaid	10%

Assessing the Impact of the 2022 Nursing Facility Rate Reforms

Determining the direct effects of policy changes can often be complex, as differentiating causation from correlation in real-world scenarios is challenging. However, the outcomes observed in Illinois following the 2022 reforms suggest a strong connection between these reforms and the improvements noted. Key factors supporting this inference include:

- **Gains Exceeding Pre-Pandemic Levels**: Unlike many sectors that have returned to pre-pandemic norms, Illinois nursing homes have surpassed their early 2022 and 2019 performance levels. While staffing ratios were higher in 2017 and earlier years, that is also the case nationwide, and the comparative improvement in Illinois is significant. Historically, Illinois had consistently been by far the worst in the country for staffing ratios, a trend that is now seeing substantial improvement.
- **Comparison with Other States**: Illinois' reforms were more extensive than any other state, which is reflected in the state's staffing ratio improvements, significantly outpacing the national average.

Still, fully understanding the impact of the reforms will require more time. Current data up to 2023 Q2 shows significant progress, as illustrated in Figure 36 below, which indicates that Illinois's improvements in staffing ratios over the last six quarters have been quicker and significantly larger than other bottom ten states (along with all other states) . Many facilities in Illinois are still in the process of adapting to these changes. The long-term sustainability and continuation of these improvements remain to be seen. A more detailed causal analysis would necessitate a higher level of data sophistication, which is beyond the scope of this interim report. In pursuit of a more comprehensive understanding, HFS is collaborating with multiple institutions to evaluate the impact of these reforms.

Illinois's improvements in staffing ratios over the last six quarters have been quicker and significantly larger than other bottom ten states (and all other states).

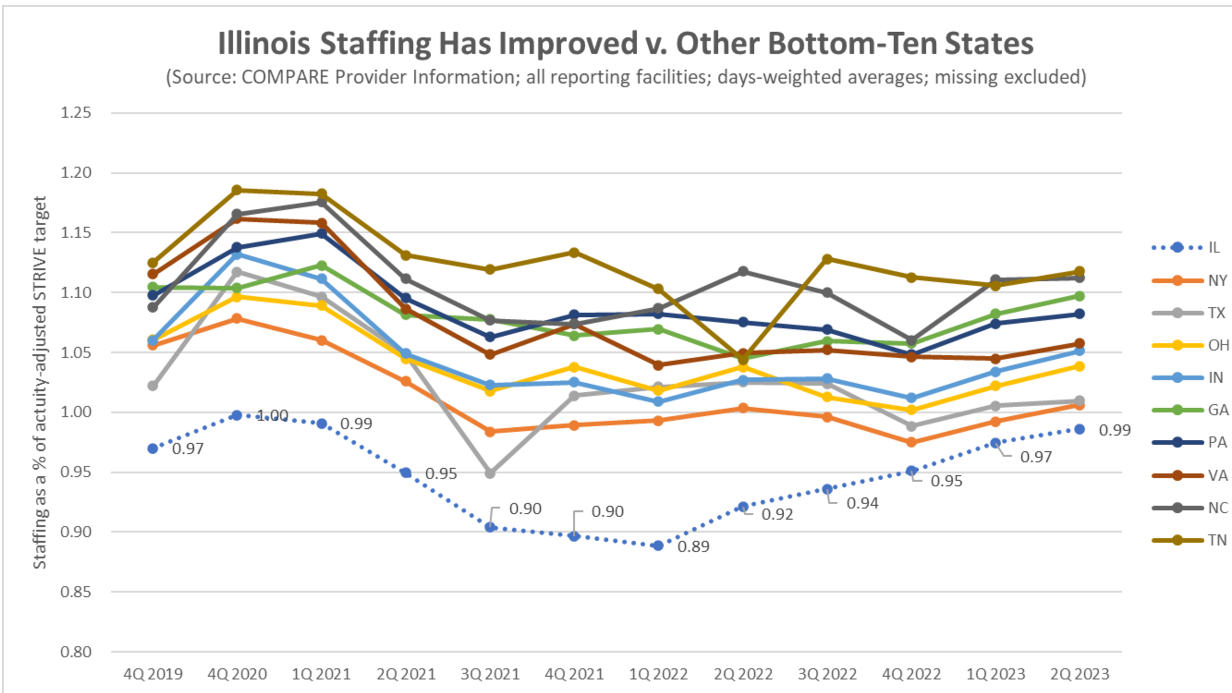

Figure 36. Illinois Staffing vs. Bottom-Ten States

Given these considerations, preliminary findings strongly suggest that the 2022 reforms have played a key role in reducing understaffing issues, although further data may provide additional insights or nuances to this conclusion.

This Progress in Context

While the improvements are encouraging, there are caveats. For one, as of the April-June 2023 quarter, Illinois still ranked last in the country for nursing home staffing. The gap between Illinois and the next states, such as Texas and New York, has significantly narrowed and with the current trajectory of improvement, Illinois is only one quarter behind these states in staffing levels. Nevertheless, the fact remains that if and when Illinois climbs out of last place the state will still has a long way to go before it is out of the lower rungs.

Another critical aspect to consider is the broader impact on the healthcare workforce. The staffing gains in nursing homes may or may not mirror an overall improvement in the healthcare sector, especially in the short run. There's a possibility that these facilities are sourcing new staff from other healthcare entities, which could initially exacerbate staffing shortages in those other healthcare settings. A key question looking ahead is whether the increased wages and substantial hiring effort in by nursing homes will extend into other healthcare settings and serve as an incentive that attracts more individuals to the healthcare workforce.

X. Changes in Quality of Care

Introduction

The CMS Five-Star Quality Rating System serves as a tool for consumers, families, and caregivers to compare nursing facilities and spot areas for improvement. It provides composite ratings for Overall, Short-Stay, and Long-Stay care, each on a scale from 1 to 5 stars, where a higher rating indicates higher quality. This system evaluates facilities based on health inspections, staffing levels, and quality measures, all tailored to meet resident care needs. It's instrumental in helping consumers make informed decisions and serves as a comprehensive framework for Illinois to measure quality improvements in its nursing facilities.

As part of the 2022 reform, Illinois implemented a directed payment system to enhance quality in nursing facilities by linking financial incentives to performance metrics. This approach is vital, especially considering the state's historically low national rankings in care quality. The CMS Five-Star Quality Rating System, setting the standards for Illinois' quality incentive payments, is also a benchmark for assessing the impact of the 2022 reform.

Over the past few years, both the Illinois and national nursing home industries have faced challenges impacting quality scores, including the COVID-19 pandemic and CMS policy changes. These factors have potentially influenced the quality ratings of nursing homes in various ways. Table 13 outlines some of the more significant changes to the CMS Five-Star Quality Ratings from 2021 to 2023. The table also details changes such as the implementation of a new survey methodology focused on resident-centered care and infection control, the introduction of additional inspections for infection control practices, updates to staffing measures, and the expansion of the antipsychotic use measure. The table also notes significant increases in the weighting of health inspections and certain quality measures, changes in the methodology for calculating the Staffing Rating, and the resumption of health inspection ratings.

Table 13. Changes to the CMS Five-Star Quality Ratings

Date	Change	Description
January 2021	Updated Survey Methodology	Implemented a new survey methodology focused on resident-centered care and infection control.
January 2021	Introduction of Focused Infection Control Inspections	Began conducting additional inspections to assess infection control practices and preparedness.
April 2021	Updates to Staffing Measures	Updated measures to reflect changes in data collection and reporting requirements.
July 2021	Revisions to Quality Measures	Made minor revisions to several Quality Measures based on stakeholder feedback and data analysis.
October 2021	Expansion of Antipsychotic Use Measure	Expanded the scope of the measure to include additional medications and residents.
December 2021	Increased weighting of Health Inspections	Increased the weight of the Health Inspections domain in the overall rating from 25% to 30%.

December 2021	Increased weighting for some Quality Measures	Increased the weight of some Quality Measures in the overall rating, with specific focus on measures related to falls, pressure ulcers, and hospital readmissions.
December 2021	Changed methodology for Staffing Rating	Changed the methodology for calculating the Staffing Rating to take into account the number of hours that nurses and aides work per resident, as well as the turnover rate of staff. This change aimed to provide a more accurate picture of staffing levels and their impact on resident care.
January 2022	Resumed Health Inspection Ratings	Resumed calculating and updating the Health Inspection Ratings for nursing homes, based on findings from focused infection control inspections.
January 2022	Updated Quality Measures	Updated the Quality Measures used in the 5-Star Rating System using data collected through June 30, 2020.
April 2022	Planned increase to Quality Measure thresholds	Implemented the planned, regular increases to the Quality Measure (QM) rating thresholds, increasing each threshold by one-half of the average improvement in QM scores since the last time the thresholds were set.
July 2022	Staffing Rating change	New regulations took effect requiring nursing homes to report weekend staffing data for nurses and annual turnover rates among nurses and administrators. This data was incorporated into the Staffing Rating.
October 2022	Specification of Quality Measures	CMS implemented revisions to several existing Quality Measures, including adjustments to scoring algorithms, inclusion of new data sources, and modifications to how specific measures are calculated.
October 2023	Integration of Staffing Data	Implemented a new methodology for integrating staffing data into the Staffing Rating using a case-mix adjustment.
October 2023	Re-specification of Quality Measures	Re-specified or updated several Quality Measures to incorporate new data sources, adjust scoring algorithms, and improve accuracy and relevance.
October 2023	Freeze of Four Quality Measures	Temporarily froze the scoring of four Quality Measures due to concerns about data validity and reliability.

The remainder of this section delves into the CMS Five-Star Quality Ratings, beginning with an

analysis of the Overall Five-Star Quality ratings—a composite score that includes both Long-Stay and Short-Stay Star Rating Quality measures. This analysis compares Illinois with the national average and is followed by an examination of specific stratifications within the state. The analysis also covers both Long-Stay and Short-Stay Quality Star Ratings, providing a comprehensive view of nursing home care performance.

Methodology

The CMS quality data used in this report is stratified by selected characteristics to analyze nursing facility performance across Illinois. These stratifications include Medicaid utilization, facility size, ownership type, Health Service Area (HSA) classification, and residents of color ratios. Data for Medicaid utilization, facility size, and ownership type are extracted from the cost reports of facilities, which provide self-reported financial and operational overviews of each facility's reliance on and use of Medicaid funding.

The proportion of residents of color within a facility is an important demographic indicator. This information is derived from the Minimum Data Set (MDS) and normalized by assessment day to ensure a representative reflection of the resident population over time.

For the evaluation of the CMS Five-Star overall quality rating, we utilized published data from CMS for both Illinois and the US average for each calendar quarter. In analyzing long-stay and short-stay measures, the average of each score across all facilities within Illinois was calculated, with scores being resident day-weighted for a more accurate comparison to other states. This weighted approach offers a comprehensive view of the state's performance, allowing for a more nuanced understanding of how Illinois fares in these domains relative to other states. The resulting scores give each nursing home resident equal weight in the characterization of Illinois and national averages – rather than giving each facility equal weight.

For regional analyses within Illinois, Health Service Area (HSA) regions were classified into two categories, with facilities in Chicago treated as one distinct region and facilities in all other areas in Illinois grouped into the non-Chicago category. This allows for a focused analysis on the impact of geographic location on quality ratings.

To ensure consistency and account for potential seasonal variations, this report makes quarter-to-quarter comparisons across different years. This method addresses differences in report volume and illuminates changes in resident characteristics that can occur with seasonal shifts, such as the prevalence of respiratory viruses during winter months, which can influence treatment frequencies and quality measures.

Findings

CMS Overall Five-Star Quality Ratings

Figure 37 below presents a trend analysis of the average CMS Overall Five-Star Quality Ratings for both the US and Illinois. It shows that the US average surpasses Illinois in each quarter. However, a notable shift occurs starting at the beginning of 2022, when Overall Five-Star Quality Ratings for both Illinois and the US began a multi-quarter decline. The US average continued a steady decline through the second quarter of 2023. Illinois' decline was initially larger, but abated beginning in late 2022, with slight improvement thereafter. With its recent improvement, Illinois' performance gap v. the country as a whole has shrunk over the last two available quarters of data, but the remaining gap is still larger than it was prior to CMS' 2022

recalibration of the Overall Five-Star metric. This makes interpretation of Illinois recent (and relatively weak) rebound difficult and argues for a return to this question in when the state has a few more post-recalibration (and post-reform) quarters of experience to draw from.

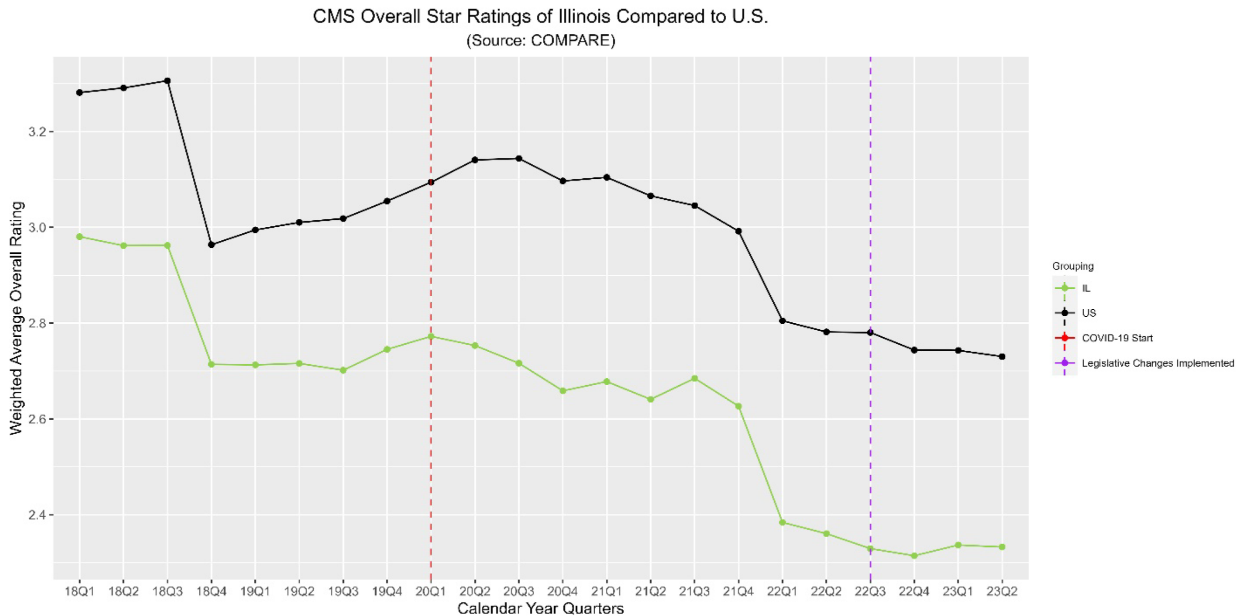

Figure 37. CMS Overall Star Ratings of Illinois Facilities Compared to US

Overall Five-Star Ratings by Nursing Facility Ownership Category

Understanding the impact of nursing facility ownership on CMS Quality Ratings is an important measure. The tax classification, or ownership type, can influence the allocation of resources for patient care, management objectives of the facility, and ultimately the quality of care provided to residents. As depicted in Figure 38, non-profit facilities consistently demonstrate higher Overall Star Ratings compared to for-profit facilities. Despite both Non-Profit and For-Profit facilities experiencing a decline in ratings over time, Non-Profit facilities consistently maintain higher ratings.

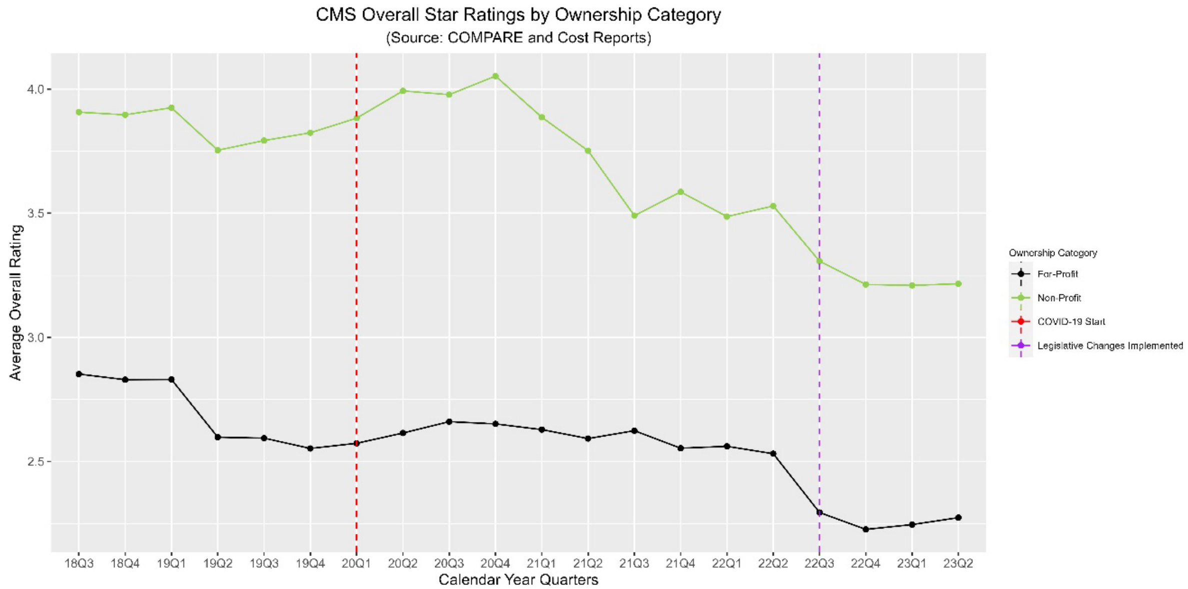

Figure 38. CMS Overall Five-Star Ratings by Ownership Category

CMS Overall Five-Star Rating by Medicaid Utilization

Medicaid utilization, indicating the percentage of Medicaid residents within a facility, is in one sense a proxy measure for health equity given Medicaid's coverage of the state's most financially vulnerable citizens. Results shown in Figure 39 below Indicate that facilities with the highest Medicaid utilization experienced a sustained decline in ratings that began in 2018 and ended in the third quarter of 2022. While there has been some recent improvement in this tier of Medicaid utilization (though not the others), that improvement is neither large enough nor has it continued long enough to indicate meaningful improvement in absolute or relative terms.

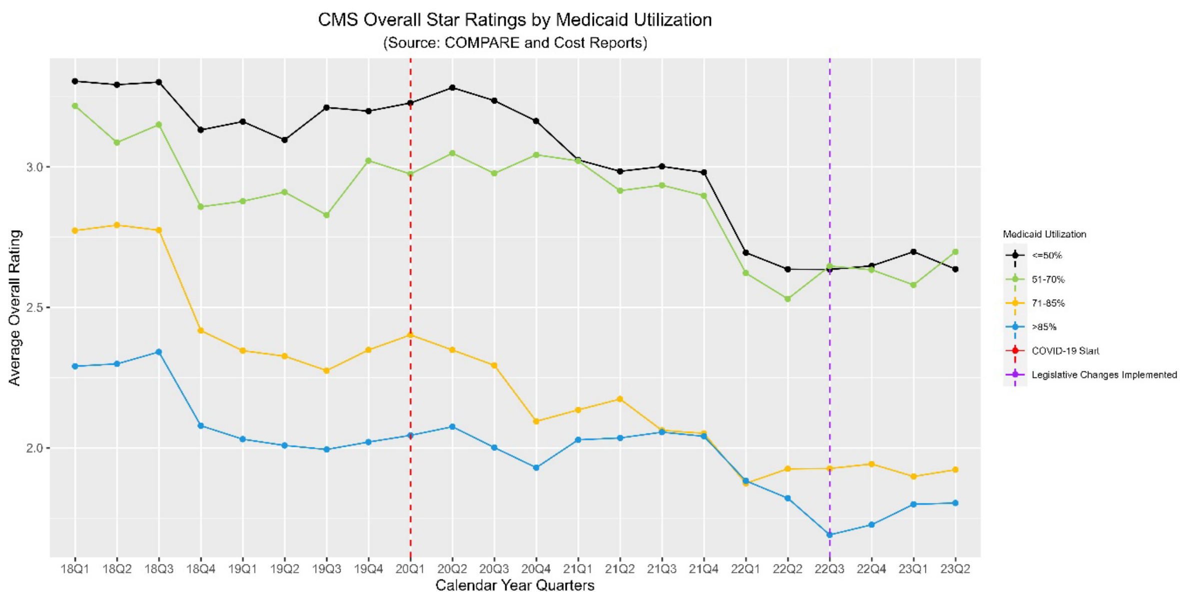

Figure 39. CMS Overall Star Ratings by Medicaid Utilization

CMS Overall Five-Star Ratings by Facility Size

Figure 40 below presents a comparison of CMS Five-Star Ratings according to each facility's size, as indicated by the number of beds. Ratings fell for every tier of facility, but the amount and pattern of decline does appear to have differed by facility size. Figure 41 reveals that facilities with fewer than 90 beds consistently achieve higher Overall Five-Star Ratings compared to larger facilities. However, ratings for the largest facilities (with more than 240 beds) have fallen the least over the course of the pandemic, and subsequently, and this group of facilities no longer has the lowest Overall Five-Star Ratings. This apparent size-related dynamic bears further study and monitoring as additional post-pandemic and post-reform quarters of data become available.

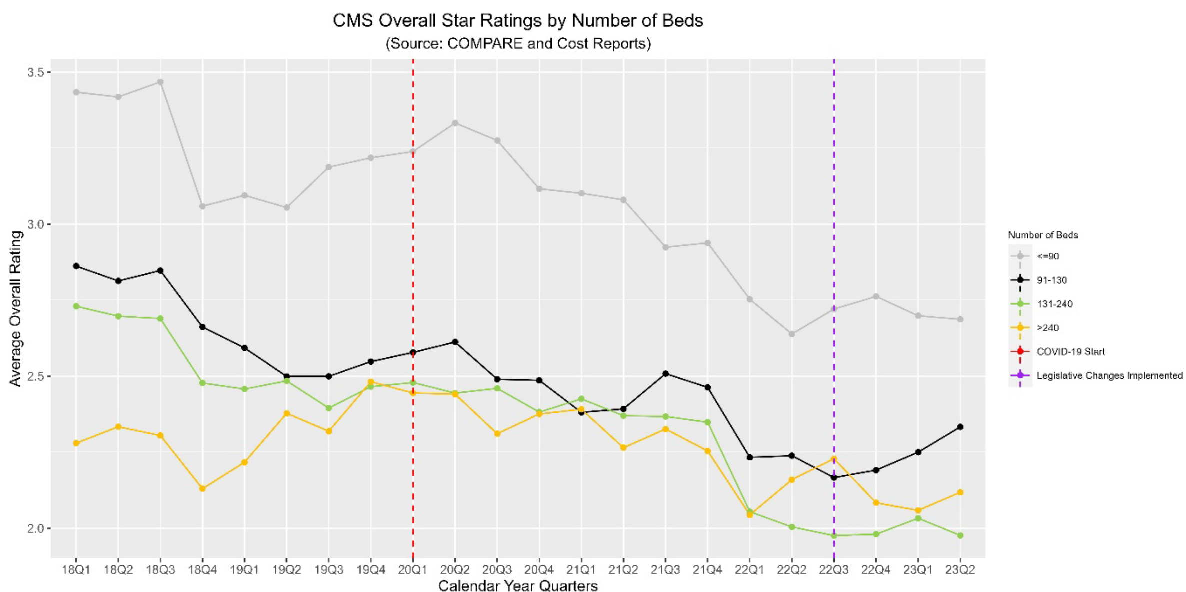

Figure 40. CMS Overall Star Ratings by Number of Beds

CMS Five-Star Quality Ratings by HSA Regions

Figure 41 provides a comprehensive regional analysis of CMS Overall Quality Five-Star Ratings, highlighting the disparities between nursing facilities in the Chicago Health Service Area (HSA) and those in non-Chicago HSAs. This analysis contrasts urban and suburban Chicago with the rest of the state, shedding light on broader health equity issues. The figure shows that Chicago nursing facilities have consistently performed better than those in other regions of the state. In 2019, Chicago facilities had a higher Overall Rating than their Non-Chicago counterparts. Over the following quarters, both regions saw a decline in their ratings. The trend since early 2022 shows an improvement in the performance gap by non-Chicago homes, with ratings having shown a slight improvement v. the 1st quarter of 2022. Since this improvement does not make up for declines that occurred during COVID, it is not clear whether this improvement represents a rebound or could be attributed in some part to the 2022 reforms. Additional study and continued monitoring is merited.

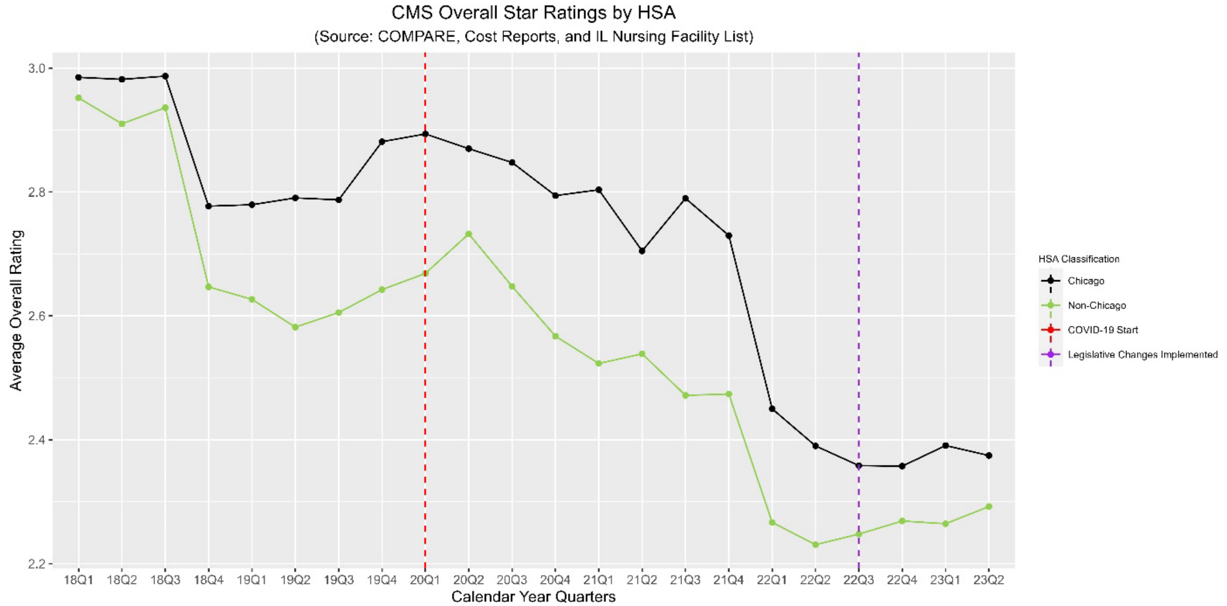

Figure 41. CMS Overall Star Ratings by HSA

CMS Overall Star Ratings by Percent of Residents of Color

One of the goals of the 2022 reform was to improve care quality across nursing facilities, with an emphasis on residents of color who have historically faced lower-quality care and adverse outcomes. The data in Figure 42 illustrates this historic deficit, with Five Star ratings declining with each increase in the percent of residents who are of color. Further, there appears to have been no *relative* improvement in CMS Star ratings for facilities predominantly serving residents of color, i.e., as compared to facilities with fewer residents of color. This persistent performance gradient merits continued observation as well as deeper and more sophisticated analysis.

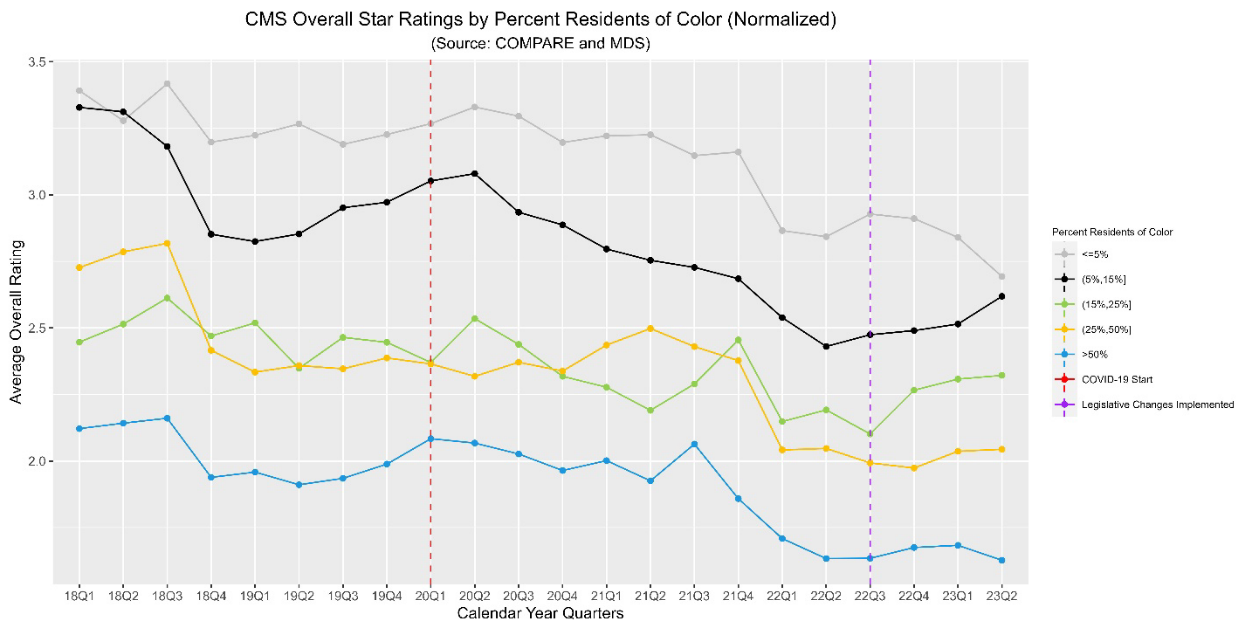

Figure 42. CMS Overall Star Ratings by Percent Residents of Color

CMS Long-Stay Quality Star Ratings

The CMS Five-Star Ratings for long-stay residents are essential for evaluating the quality of care in nursing facilities for individuals residing more than 101 days. These ratings are particularly significant as long-stay residents typically have complex medical needs and depend on consistent, long-term care that is predominantly funded by Medicaid. The ratings provide insights into a facility's effectiveness in managing chronic conditions, preserving resident mobility, and preventing health complications. The Long-Stay Quality Star Rating carries added importance due to its current role as sole determinant for the distribution of Illinois' new $70 million annual quality pool for nursing facilities. Table 14 lists the measures that make up the composite score for the CMS Long-Stay Quality Star Ratings.

Table 14. CMS Long-Stay Quality Measures

CMS Long-Stay Quality Measures	
• Pressure Ulcers • Pneumococcal Vaccine • Seasonal Influenza Vaccine • Falls with Major Injury • Depressive Symptoms • Significant Weight Loss • Antianxiety or Hypnotic Medication • Antipsychotic Medication • Physical Restraint	• Worsened Independent Mobility • Increased Need for Help with Daily Activities • Catheter Left in Bladder • Urinary Tract Infections • Loss of Bowel or Bladder Control • Hospitalizations per 1000 Resident Days • Emergency Department Visits per 1000 Resident Days

Figure 43 below compares the Average Long-Stay Quality Star Rating in Illinois with the national average in the United States. From 2019 Q2 onwards, nursing facilities in Illinois have underperformed compared to the national average. However, the data reveals a potential shift in trends in the most recent quarter. While the US averages show a continuous downward trend in quality scores from the 2022 Q3 through 2023 Q2, Illinois displayed a more gradual decline from 2022 Q4 to 2023 Q1 and in 2023 Q2, improved. Illinois' absolute performance and its performance relative to the nation as a whole merit continued observation in coming quarters.

While the decline in Illinois' performance on the Long Stay Rating has recently slowed and may have reversed, its performance gap relative to the US as a whole still exceeds pre-Pandemic levels.

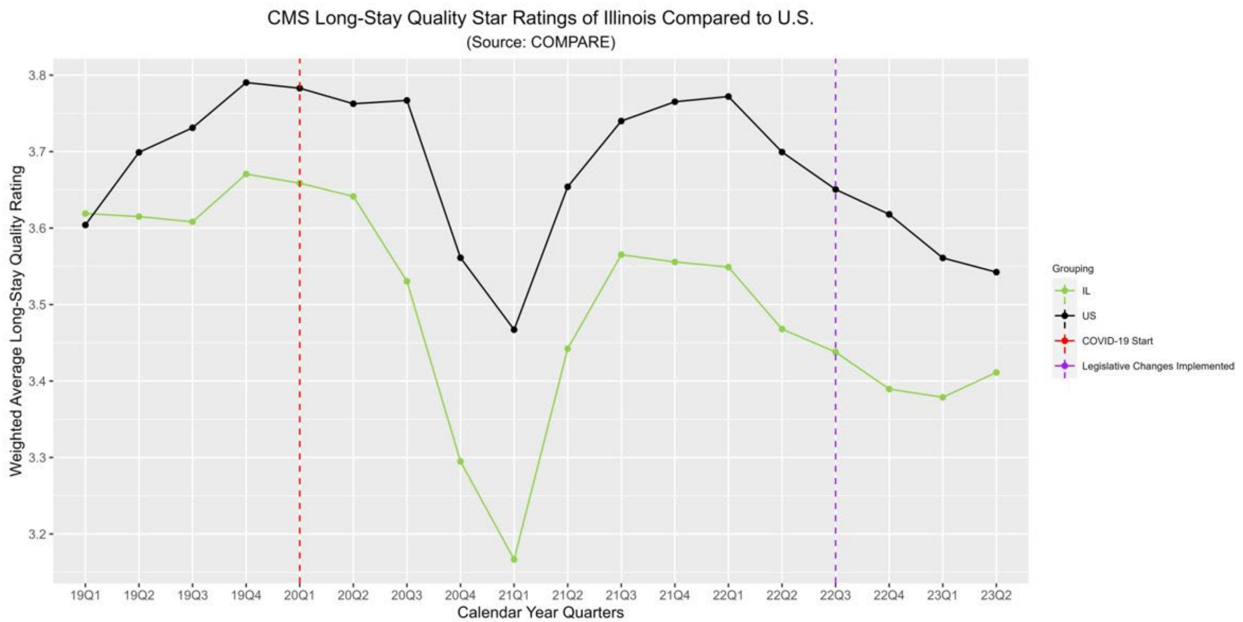

Figure 43. CMS Long-Stay Quality Star Ratings of Illinois Compare to US

CMS Long-Stay Quality Star Ratings by Ownership Category

Figure 44 compares Long-Stay Quality Star Ratings for For-Profit and Non-Profit facilities. Beginning in 2021 the performance path for each group has been pretty much the same, but this similarity stands in contrast to pre-COVID quarters when Non-Profit facilities performed consistently better. Time and additional analysis is merited to determine whether performance on this measure by For-Profit facilities has eclipsed that of Non-Profit facilities.

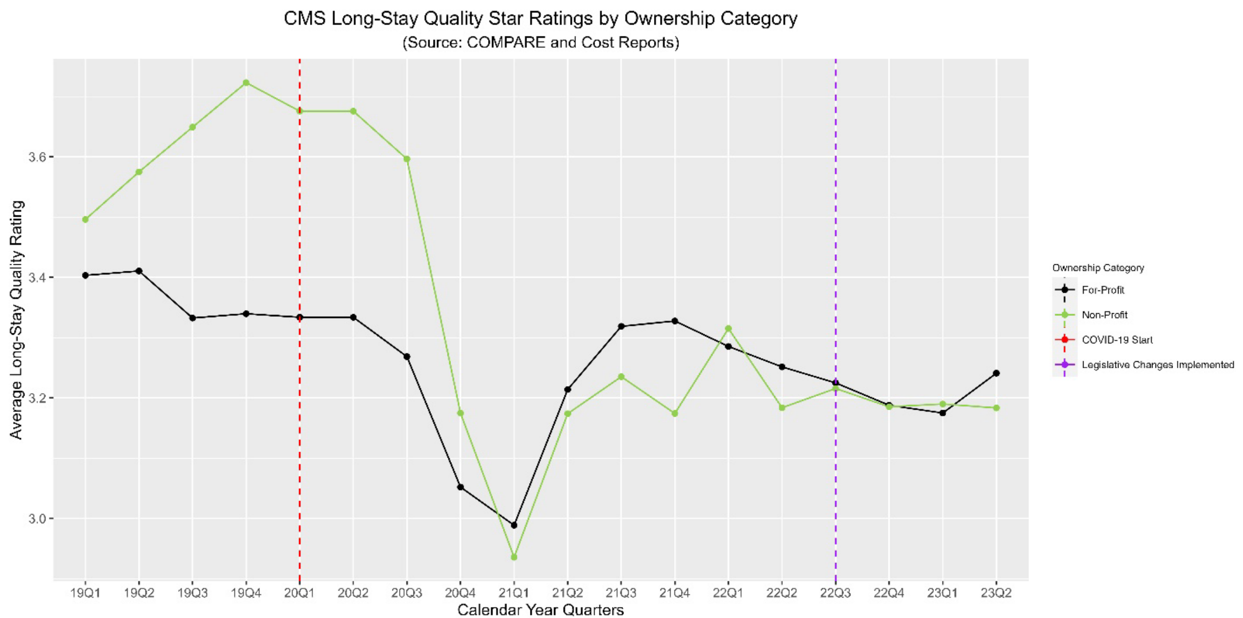

Figure 44. CMS Long-Stay Quality Star Ratings by Ownership Category

CMS Long-Stay Quality Star Ratings by Medicaid Utilization

Figure 45 below illustrates the relationship between Medicaid utilization rates and CMS Long-Stay Quality Star Ratings and draws attention to the performance of facilities that are predominantly financed by Medicaid (i.e., over 85% utilization). Since 2021 Q1, these facilities have consistently outperformed other categories in Long-Stay Quality Ratings, and this performance advantage reached a peak in last observed quarter, 2022 Q3. Also of note, the utilization tier with the second-best performance on this measure over the last several quarters is the one with the next highest percentage of Medicaid residents (71% to 85%). Further study and attention should be given to the disparate performance by facilities of different levels of Medicaid utilization on different CMS Star metrics, e.g., Long-Stay v. Overall and Short -Stay ratings.

Nursing facilities with higher Medicaid utilization have higher Long-Stay ratings, while the reverse is true for Short-Stay ratings (see below).

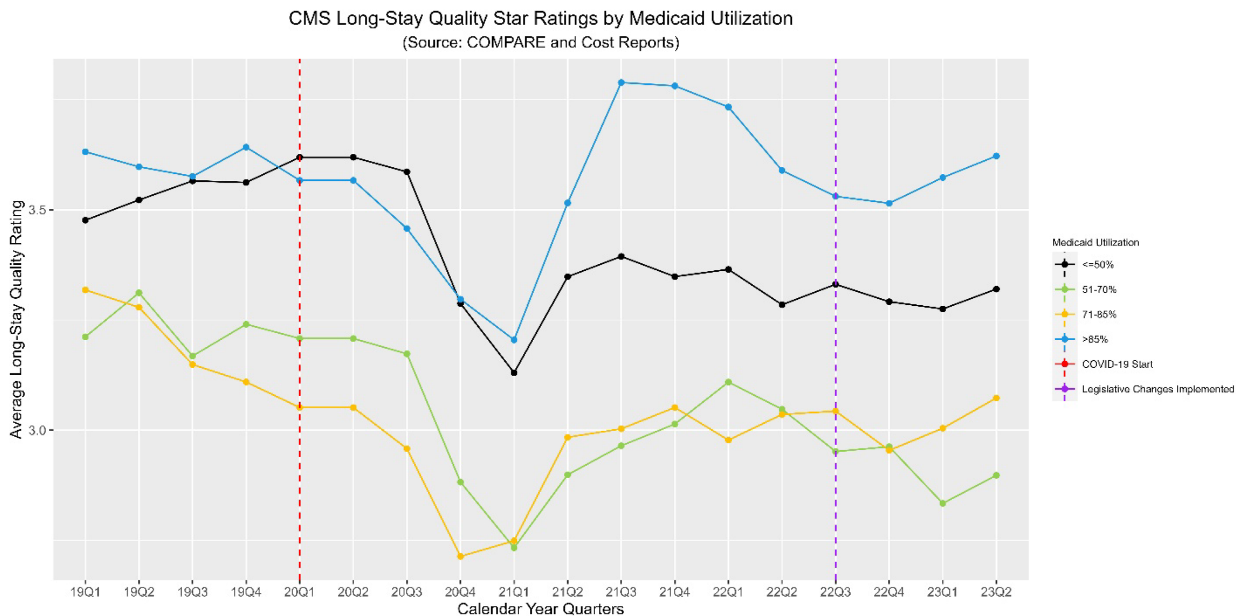

Figure 45. CMS Long-Stay Quality Star Ratings by Medicaid Utilization

CMS Long-Stay Quality Star Ratings by Number of Beds

An analysis of CMS Long-Stay Quality Star Ratings in the context of facility size is presented in Figure 46 below. The data suggests that larger facilities, particularly those with more than 240 beds, generally achieve higher Long-Stay Quality Star Ratings and consistently outperform facilities in other size categories. Despite experiencing a decline over several quarters, these larger facilities have recently shown signs of improvement. Facilities with 131-240 beds have also displayed notable improvements in their Long-Stay Quality Star Ratings. This upward trend became apparent from late 2022 and continued into mid-2023. As with the study of Long-Stay ratings by Medicaid utilization above, this comparison by facility size stands in contrast to similar analyses of the Overall rating.

Larger facilities with more than 240 beds have consistently outperformed other size categories in Long-Stay Quality Star Ratings

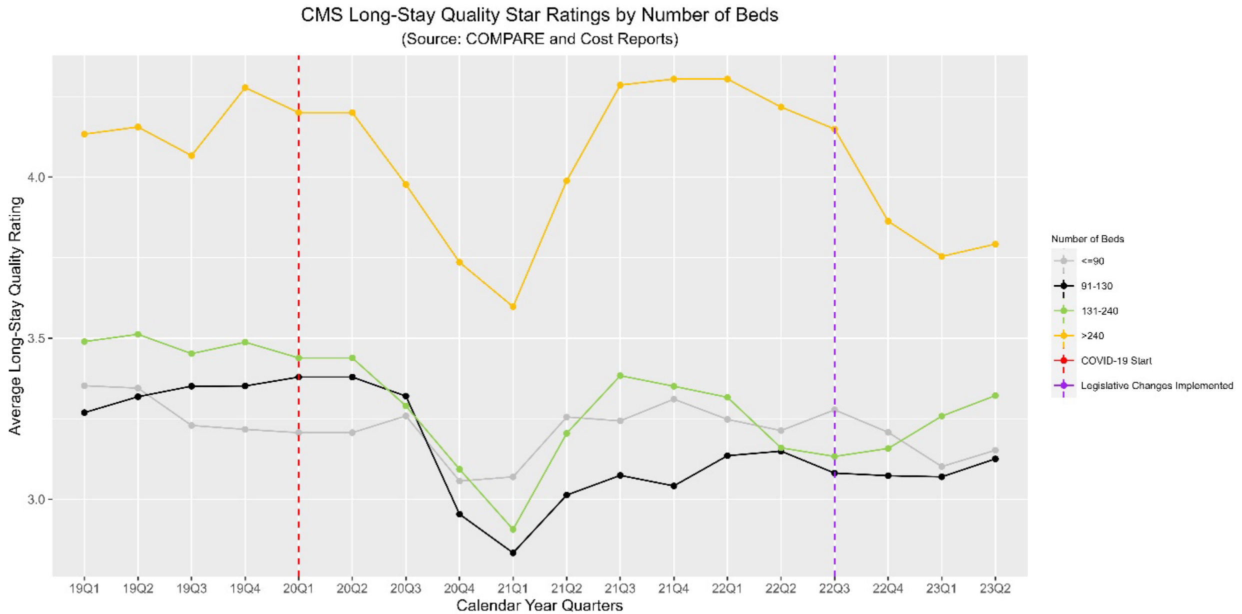

Figure 46. CMS Long-Stay Quality Star Ratings by Number of Beds

CMS Long-Stay Quality Star Ratings by HSA

Figure 47 below offers a comparison of CMS Long-Stay Quality Star Ratings for Chicago area v. Downstate (non-Chicago) facilities. Chicago area facilities consistently outperform those in areas outside of Chicago on the Long-Stay rating. Notably, there has been a slight uptick in quality ratings for non-Chicago areas in the last quarter, and a simultaneous decline for Chicago-area homes. Continued monitoring and analysis in coming quarters is warranted to determine both if the performance of some homes continues to decline, and whether observed improvements in others continue.

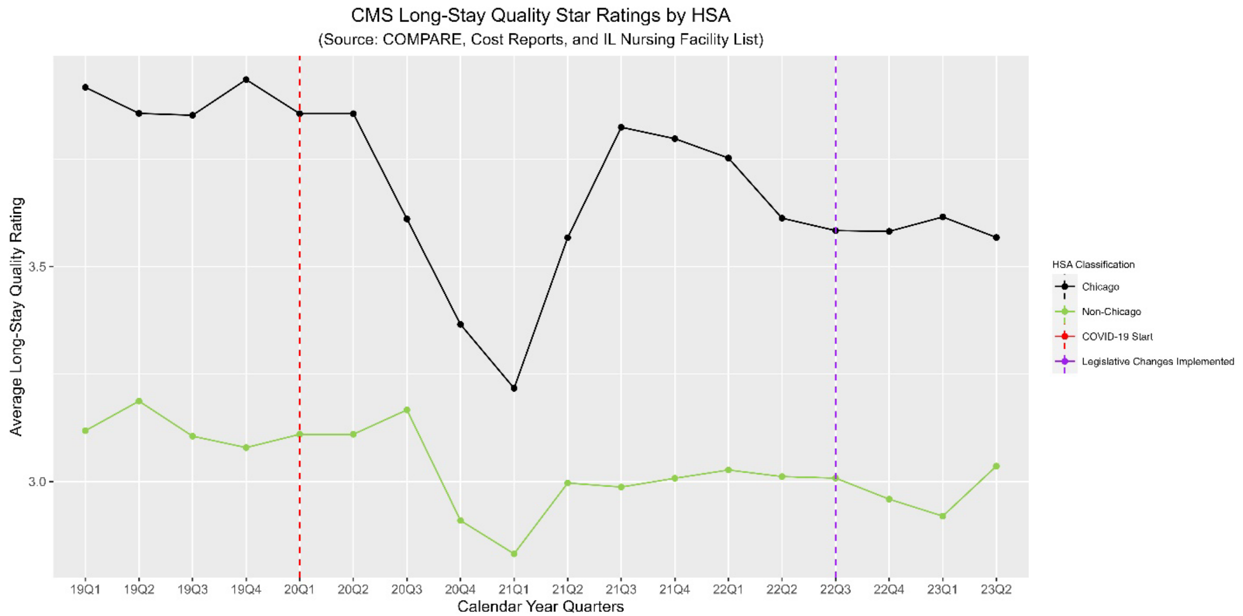

Figure 47. CMS Long-Stay Quality Star Ratings by HSA

CMS Long-Stay Quality Star Ratings by Percent Residents of Color

Historically, nursing facilities with more than 50% residents of color have consistently achieved higher Long-Stay Quality Ratings than those with fewer residents of color. Indeed, there has been a sort of reverse gradient in that increased percentages of people of color were associated with higher performance on the Long-Stay measure. While relative performance across facilities with different racial/ethnic compositions has fluctuated over time, and was especially volatile during the Pandemic, the reverse gradient remains in place in the most recent quarters.

Facilities with more than 50% residents of color have historically achieved higher Long-Stay Quality Ratings, a trend that persists into the most recent quarters.

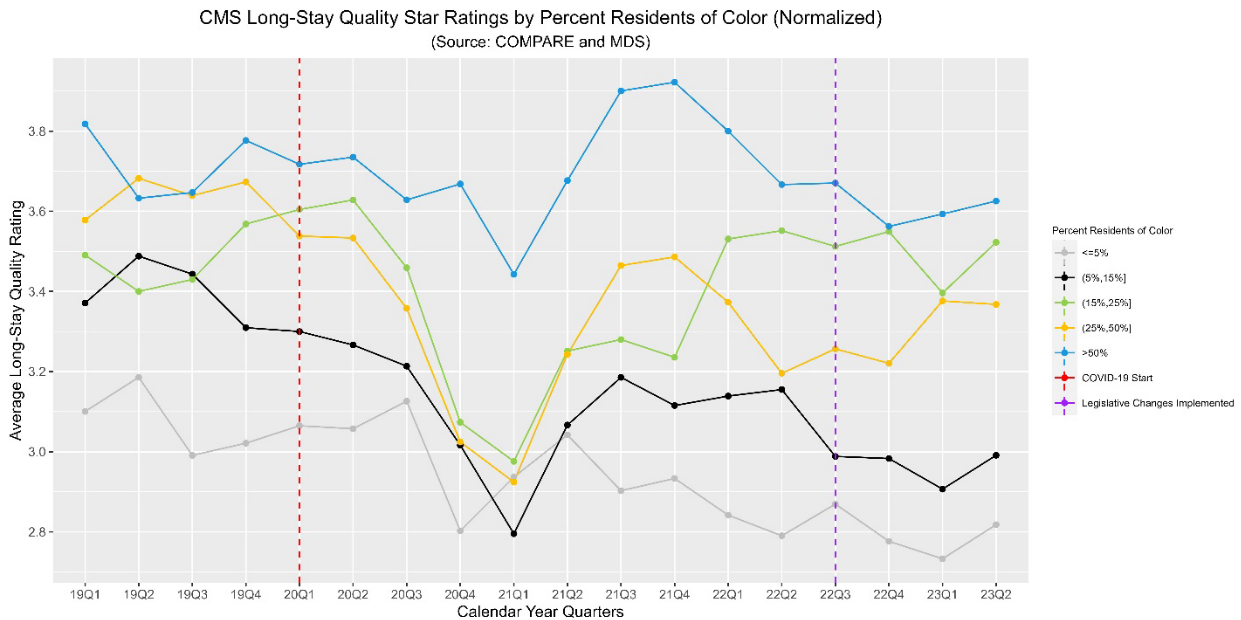

Figure 48. CMS Long-Stay Quality Star Ratings by Percent Resident of Color

CMS Short-Stay Quality Star Ratings

The Average Short-Stay Quality Star Ratings within the CMS Five-Star Quality Ratings system are designed to reflect the care quality provided by nursing facilities for residents with stays of 100 days or less. This care, predominantly funded by Medicare, is an important indicator of quality as it reflects a facility's proficiency in post-acute care. This includes recovery from surgeries, management of acute medical conditions, or transitions from hospital care. Table 15 provides a summary of the measures that make up the composite score for the CMS Short-Stay Quality Star Ratings.

Table 15. CMS Short-Stay Quality Measures

CMS Short-Stay Quality Measures
• Pneumococcal Vaccine Assessment • Improvements in Function • New Antipsychotic Medication Receipt • Seasonal Influenza Vaccine Assessment • Rehospitalization after Nursing Home Admission • Outpatient Emergency Department Visit

Figure 49, depicted below, compares the Average Short-Stay Quality Star Rating in Illinois with the national average in the United States. Throughout the observed quarters, Illinois nursing facilities have consistently underperformed in Short-Stay Quality Star Ratings compared to the national average. This gap has notably widened starting since early 2022. Both the US and Illinois experienced a decline in these ratings beginning in 2021, Illinois' decline was faster, and the performance gap is now the widest it has been since at least the first quarter of 2019. The growing disparity in Short-Stay Quality Star Ratings between Illinois and the national average merits ongoing monitoring and further analysis.

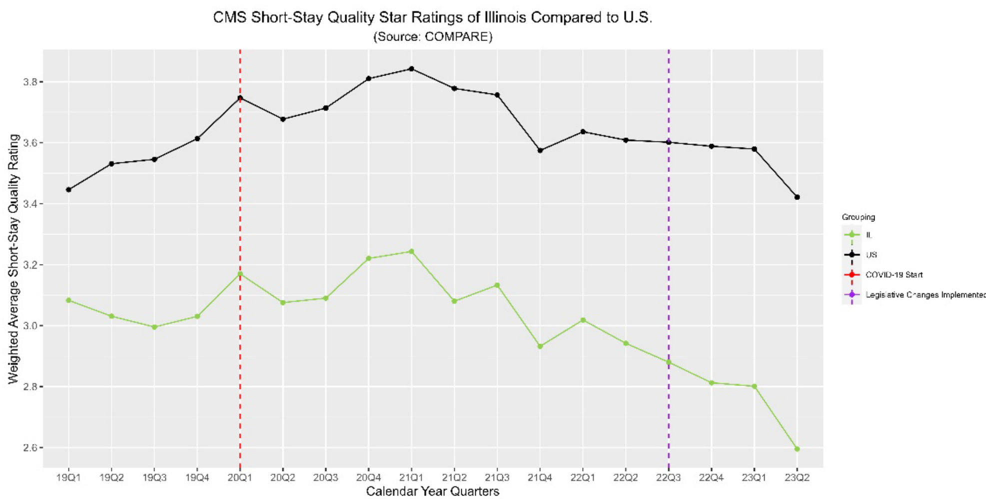

Figure 49. CMS Short-Stay Quality Star Ratings of Illinois Compared to US

CMS Short-Stay Quality Star Ratings by Ownership Category

Figure 50 below illustrates the average CMS Short-Stay Quality Star Ratings, categorized by ownership type. Consistently, quarter over quarter, Non-Profit facilities have outperformed For-Profit facilities. However, since 2022 Q1, both types of facilities have experienced a steady decline in Short-Stay ratings.

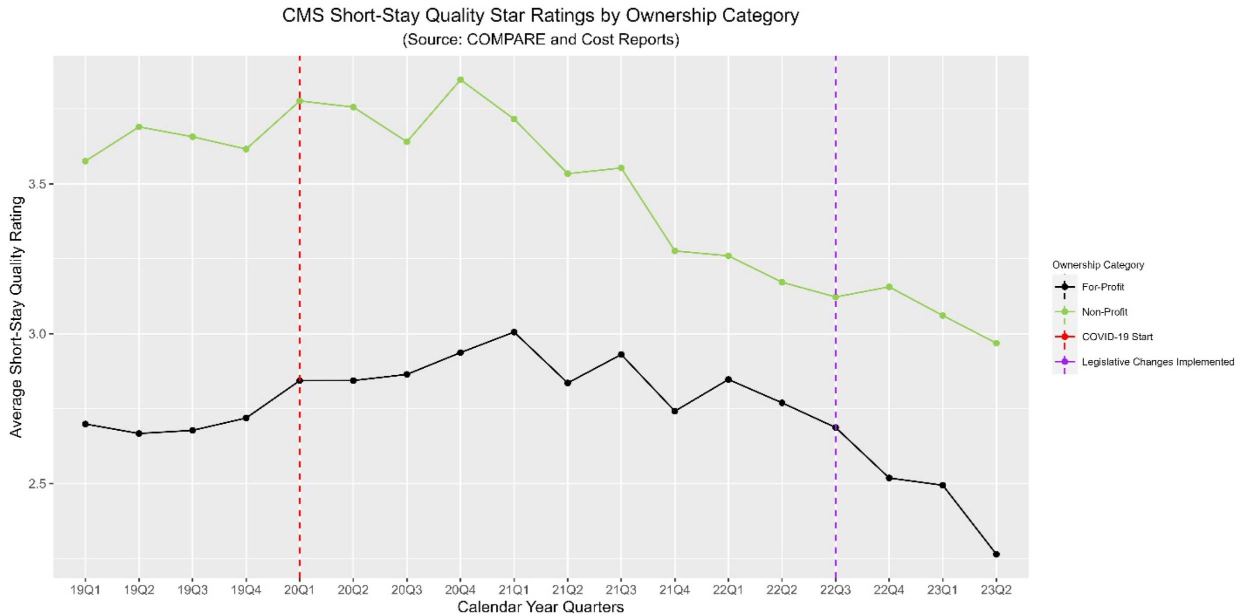

Figure 50. CMS Short-Stay Quality Star Ratings by Ownership Category

CMS Short-Stay Quality Star Rating by Medicaid Utilization

Figure 51 below examines the relationship between CMS Short-Stay Quality Star Ratings and Medicaid utilization in nursing facilities. The data from 2019 Q2 to 2023 Q2 reveals that facilities categorized as having lower Medicaid utilization tend to have higher Short-Stay Quality Star Ratings. This is precisely the opposite gradient as is observed for the Long-Stay rating, and this contrast matches the differing resident populations: Medicaid residents generally have significantly longer stays while Medicare pays only for short stays.

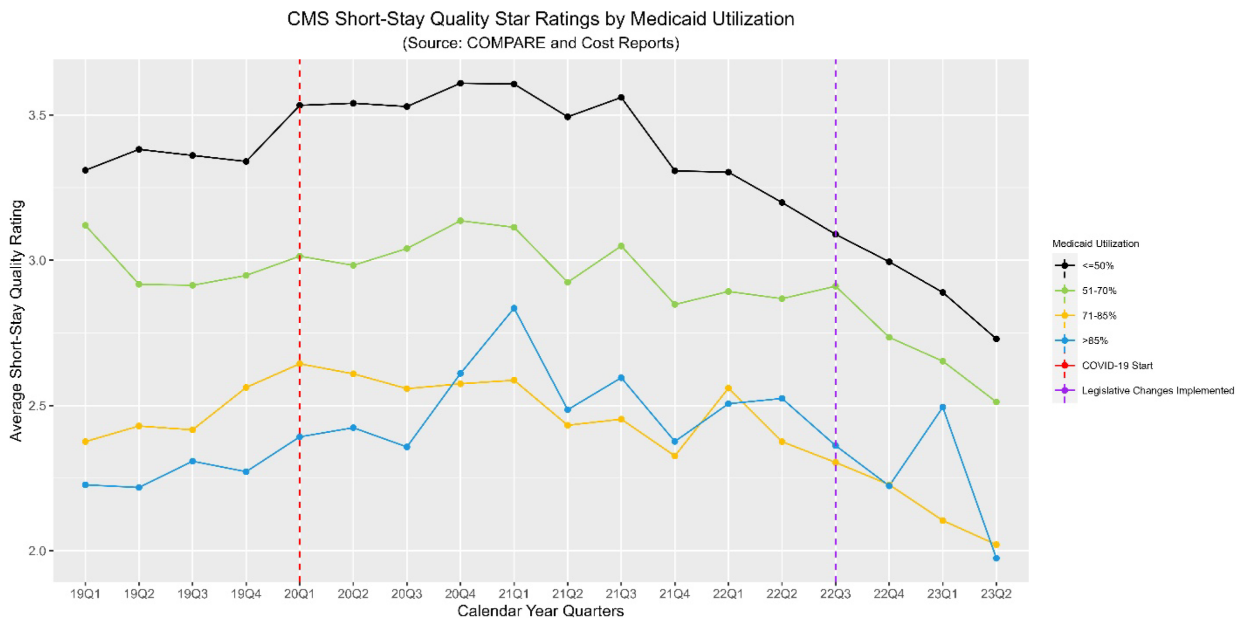

Figure 51. CMS Short-Stay Quality Star Ratings by Medicaid Utilization

CMS Short-Stay Quality Star Ratings by Number of Beds

Figure 52 examines the relationship between the number of beds in a nursing facility and its CMS Short-Stay Quality Star Ratings. Such ratings are particularly significant for residents requiring temporary rehabilitation, where short-stay care quality could potentially be influenced by factors related to facility size such as staffing ratios, service diversity, and the potential for more personalized care. Conversely, larger facilities in Illinois tend to have higher rates of Medicaid utilization and often have more beds in each room, which may be indicative of longer resident stays and a potential focus on their care. The data indicates a relatively consistent decline in Short-Stay Quality Ratings across facilities of all sizes in recent quarters.

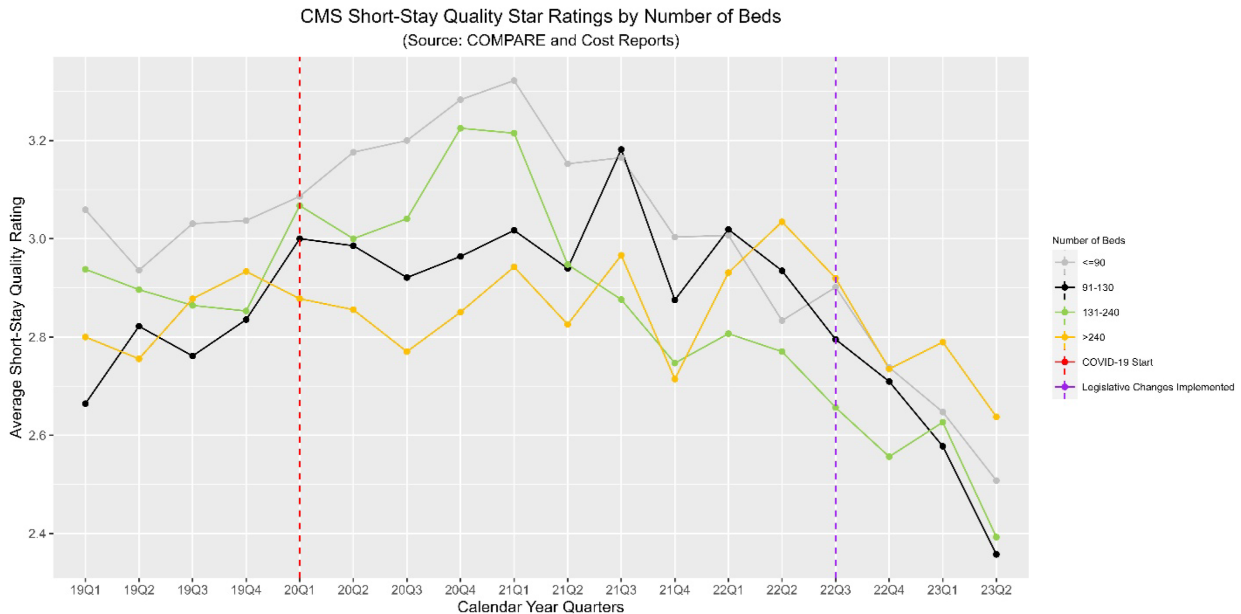

Figure 52. CMS Short-Stay Quality Star Ratings by Number of Beds

CMS Short-Stay Quality Star Ratings by HSA

Figure 53 below examines the CMS Short-Stay Quality Star Ratings, comparing Chicago area to non-Chicago Health Service Areas. Historically, the Chicago region consistently exhibits a higher Short-Stay Quality score when compared to the Non-Chicago group. However, since 2020 Q1, that performance gap has widened somewhat. This result merits further study and ongoing monitoring in coming quarters.

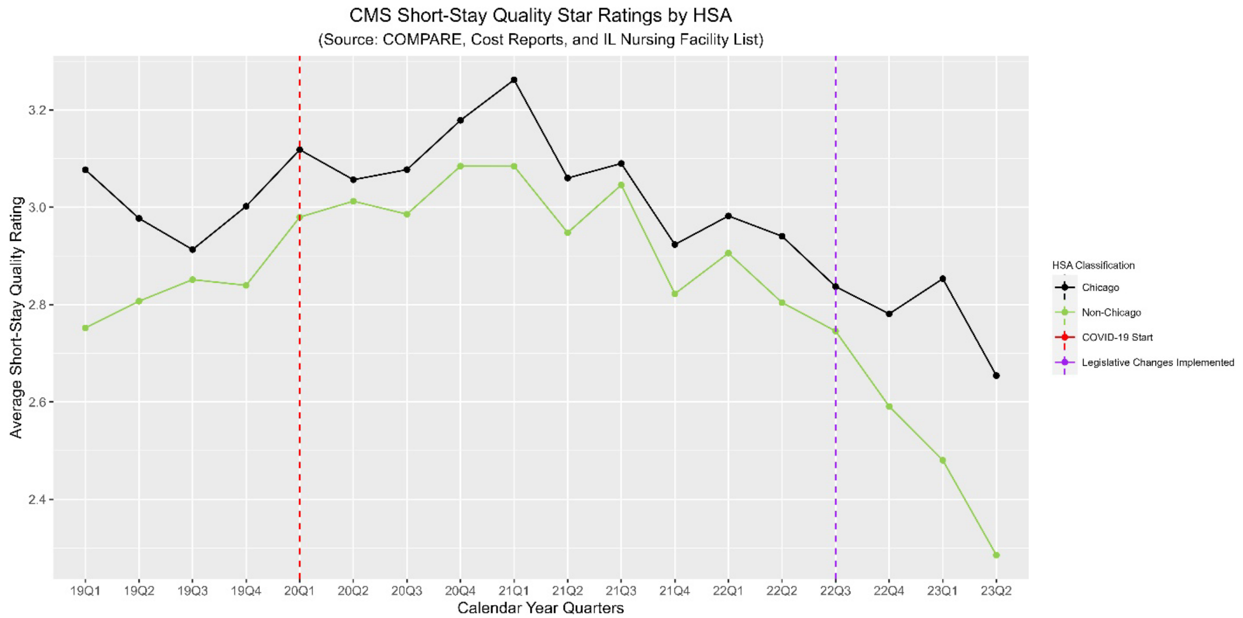

Figure 53. CMS Short-Stay Quality Star Ratings by HSA

CMS Short-Stay Quality Star Ratings by Percent Residents of Color

Figure 54 below illustrates a comparison of Short-Stay Quality Ratings across various facility categories based on the percentage of residents of color. The data reveals that facilities with over 50% residents of color generally have lower ratings compared to other categories, but that this gap has narrowed considerably v. pre-COVID levels. This narrowing can be attributed primarily to declines in performance by facilities with fewer than 50% persons of color. Also, the most recent quarter showed a rapid drop in performance by facilities with more than 50% persons of color. These results merit ongoing attention in coming quarters to determine both if performance rebounds in general, and to see if racial and ethnic disparities abate.

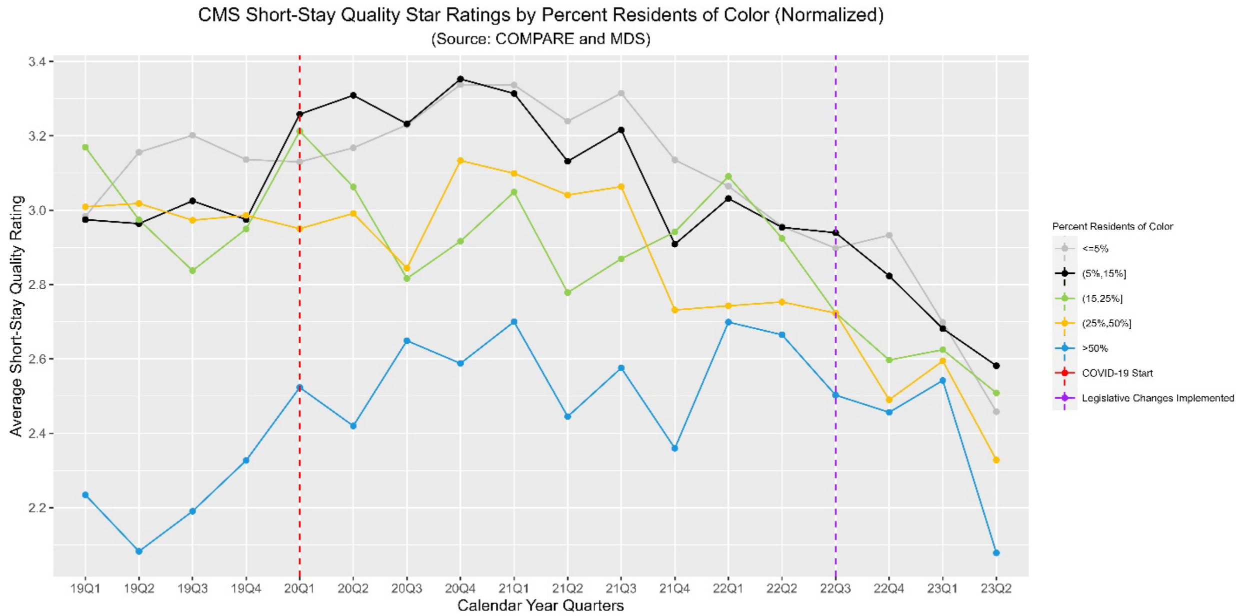

Figure 54. CMS Short-Stay Quality Star Ratings by Percent Resident of Color

A Closer Look: Average Long and Short-Stay Quality Measures in Illinois Nursing Facilities

The average long-stay (Table 16) and short-stay (Table 17) quality measures presented earlier offer macro-level insight into care quality trends across Illinois nursing facilities. However, these aggregate measures are really indices comprised of several individual metrics. The tables below represent the statewide averages of the various measures that contribute to the Long and Short-Stay ratings, in several cases revealing sudden changes associated (in timing) with the COVID pandemic. This table includes key indicators of patient care such as the incidence of pressure ulcers, vaccination rates, the frequency of falls with major injury, the percentage with a urinary tract infection, and the use of restraints, among others. The results below indicate some promise in long stay metrics in 2023, but data for 2023 is incomplete.

Table 16. Illinois MDS Long-Stay Quality Measures State Average 2019 - Oct 2023

Long-Stay Quality Measures[56]	2019	2020	2021	2022*	2023
Percentage of high risk long-stay residents with pressure ulcers	*7.5%*	*7.6%*	*9.2%*	*8.8%*	*8.5%*
Percentage of long-stay residents assessed and appropriately given the pneumococcal vaccine	89.5%	89.2%	88.4%	86.0%	84.9%
Percentage of long-stay residents assessed and appropriately given the seasonal influenza vaccine	93.2%	93.7%	93.4%	92.0%	91.5%

[56] https://data.cms.gov/provider-data/archived-data/nursing-homes

Long-Stay Quality Measures[56]	2019	2020	2021	2022*	2023
Percentage of long-stay residents experiencing one or more falls with major injury	3.3%	3.2%	3.4%	3.5%	3.3%
Percentage of long-stay residents who have depressive symptoms	19.9%	21.9%	29.5%	31.6%	34.6%
Percentage of long-stay residents who lose too much weight	6.2%	6.2%	8.1%	6.4%	6.7%
Percentage of long-stay residents who received an antianxiety or hypnotic medication	19.8%	19.4%	19.5%	19.0%	18.4%
Percentage of long-stay residents who received an antipsychotic medication[57]	18.6%	18.3%	18.7%	18.0%	18.8%
Percentage of long-stay residents who were physically restrained	0.2%	0.2%	0.2%	0.1%	0.1%
Percentage of long-stay residents whose ability to move independently worsened	15.8%	15.8%	23.1%	16.7%	14.0%
Percentage of long-stay residents whose need for help with daily activities has increased	13.6%	13.7%	15.10	14.0%	12.5%
Percentage of long-stay residents with a catheter inserted and left in their bladder	2.3%	2.1%	1.6%	1.7%	1.6%
Percentage of long-stay residents with a urinary tract infection	3.0%	3.0%	2.6%	2.6%	2.4%
Percentage of low risk long-stay residents who lose control of their bowels or bladder	46.0%	46.1%	45.1%	43.8%	45.6%
Number of hospitalizations per 1000 long-stay resident days	1.84	1.82	1.67	1.71	2.01
Number of outpatient emergency department visits per 1,000 long-stay resident days	1.00	1.02	.79	1.08	1.38

[57] From 2022 Q2 to 2023 Q2 there was an increase from approximately 4% to 5.5% of residents who qualified for the SMI add-on payment, which may account for the increase in this measure.

Table 17. Illinois MDS Short-Stay Quality Measures State Average 2019 - Oct 2023

Short-Stay Quality Measures[58]	2019	2020	2021	2022*	2023
Percentage of short-stay residents assessed and appropriately given the pneumococcal vaccine	74.6%	74.7%	70.3%	66.3%	65.2%
Percentage of short-stay residents who made improvements in function	63.1%	63.1%	67.3%	71.4%	71.2%
Percentage of short-stay residents who newly received an antipsychotic medication	2.0%	2.1%	2.2%	2.0%	2.2%
Percentage of short-stay residents who were assessed and appropriately given the seasonal influenza vaccine	73.6%	74.2%	70.0%	63.4%	62.2%
Percentage of short-stay residents who were hospitalized after a nursing home admission	23.7%	22.1%	24.6%	24.6%	25.3%
Percentage of short-stay residents who had an outpatient emergency department visit	10.5%	10.5%	10.1%	10.1%	12.3%

** Legislative Changes Implemented Q3 2022*

Future Considerations

As the state accumulates more post-COVID and post-reform experience it will be important to monitor these individual outcome measures and to try and determine whether changes – improvements or declines – are sustained and significant. Future considerations might include:

- **The Impact of COVID-19**: The pandemic has exerted significant pressures on nursing facilities, and these pressures may be novel, interactive (with each other), and appear to have varied significantly through the course of the pandemic. If the Pandemic does not resurge, performance in its wake may continue to both recover and evolve.
- **Quarantine Measures and Room Crowding**: Essential for infection control, extended quarantine and isolation protocols may have had negative consequences, such as reduced social interaction and limited mobility. Conversely, as census levels increase post-COVID some larger facilities might make greater use of larger ward-style rooms with 3 or 4 beds.
- **Changes in Nursing Home Staffing and Operations**: Associated with the pandemic, various factors including, in particular, increases in nurse staffing and changes in the composition of nursing home staff could all influence nursing home performance and resident care.

[58] https://data.cms.gov/provider-data/archived-data/nursing-homes

- **Vaccination Challenges**: Despite the critical role of vaccinations in mitigating and preventing COVID, influenza and pneumonia, there was a decline in vaccine use among long-stay residents.
- **Mental Health Concerns**: As in other populations, the long-stay nursing home population has suffered a very large increase in the prevalence of depressive symptoms, a rise which appears to have continued post-COVID.

XI. Profits and Financial Performance of Nursing Facilities

Introduction

The financial well-being of nursing facilities is a complex and multifaceted issue, influenced by a range of factors including Medicaid and Medicare reimbursement rates. Medicaid rates are especially crucial for facilities that serve predominantly low-income and minority communities.

During the pandemic non-Medicaid resident census fell significantly and wages rose significantly in the midst of an historic labor shortage. As resident counts fell and wage costs rose, the Federal government provided hundreds of millions in (sometimes targeted) operating subsidies. In Illinois this dynamic played out as the state deliberated, adopted, and implemented historic and novel reforms yielding more than $500 million in new (net) revenue for nursing homes, but tying much of this new funding to increased staffing levels, CNA wages and quality that for some facilities would require new financial commitments, e.g., in increased staffing and wages. Throughout the reform process HFS conducted numerous and detailed analyses of the impact of the reforms on individual facilities, projecting sufficient funding for sustainable operations at increased levels of staffing even for those facilities that were most dependent on Medicaid and most under-staffed prior to the reforms. It is important to follow-up on those projections to ensure improved access to high quality care for Medicaid residents and people of color, core drivers of the reform effort.

Data and financial performance information available for this interim report provides only an initial and partial window of observation of post-reform operations and financial performance, capturing only six months of post-reform experience for approximately 85% of the state's facilities with Jan-Dec fiscal year cycles. Along with analysis of Medicaid cost coverage in Section VII above, the analysis of profitability below is presented as the proposed methodology to be used in the first annual report to the legislature on nursing home payments as required by the 2022 reform legislation. That report is due to the legislature in 2025 and will be able to draw on more than a full year's post-reform experience for all facilities. HFS welcomes comment on the methodology presented below (and in Section VII above) in advance of its work in preparing the 2025 report.

Methodology

This report investigates the general trends in nursing facility revenue, costs, operating margin and net profit using cost report data. Nursing facility cost reports from 2017 to 2022 were the main source of information for this analysis. Nursing facilities were grouped as in the sections above by resident bed days, ownership type, regional differences, and Medicaid utilization. The cost report fiscal year end varied by facilities, with 85% falling on December 31 and most of the rest falling on June 30. Wherever necessary, data was adjusted to account for outliers and data anomalies. Characterizations of operating margins and net profit are provided in the appropriate subsections below.

Findings

The cost report data shows a marked change in trajectory in Illinois nursing facility revenue during the past five years. From 2017 to 2019 the compounded annual growth rate (CAGR) was -1.3%, whereas from 2019 to 2022 the CAGR was 7%. This change in trajectory coincided with both the influx of Federal relief funds dispersed during the pandemic in 2020-2022, followed by

Medicaid rate increases and increased supplemental payments as part of the Illinois payment reform. The cost report data indicates substantial increases in revenue through 2022, the latest data available as shown in Figure 55.

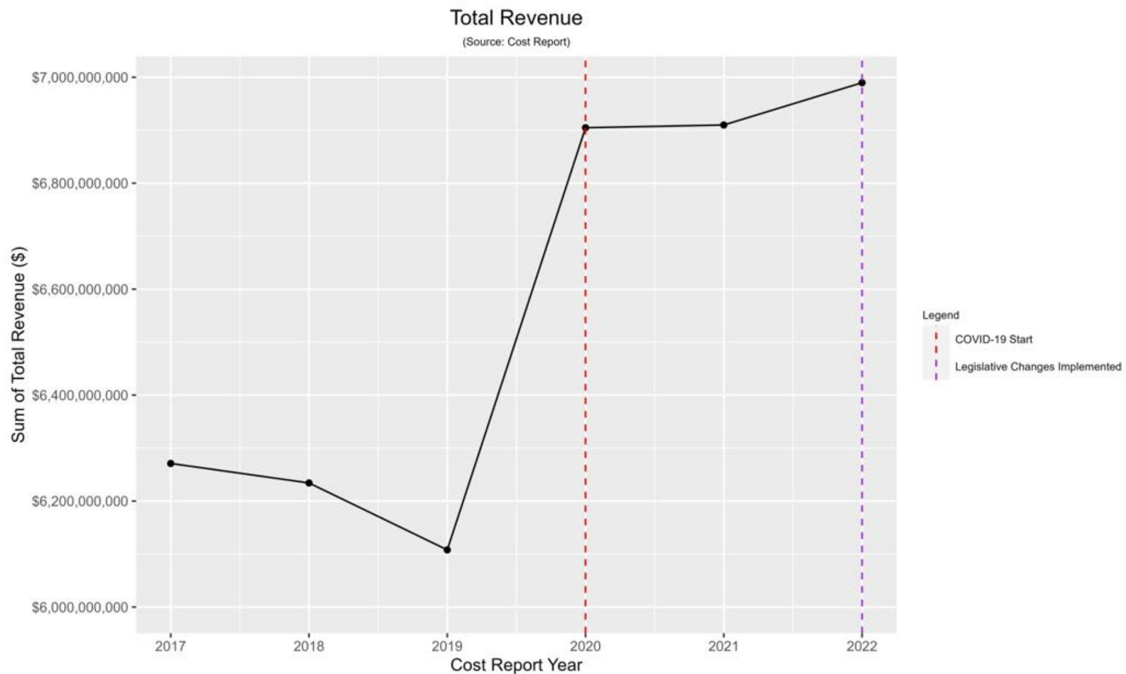

Figure 55. Total Revenue

Revenue is one partial measure of top line performance and can be influenced by multitude of factors, one of which is payor mix. Historically Medicaid rates have been lower than those of Medicare and commercial payors. Nevertheless, in recent years in Illinois, when segmented by Medicaid utilization, the revenue trends have been best for higher-Medicaid facilities. While facilities with a Medicaid utilization of greater than 50% show a CAGR of 9.6% from 2017 to 2022, those with less than or equal to 50% utilization had a CAGR of -8.6% over the same period (see Figure 56).

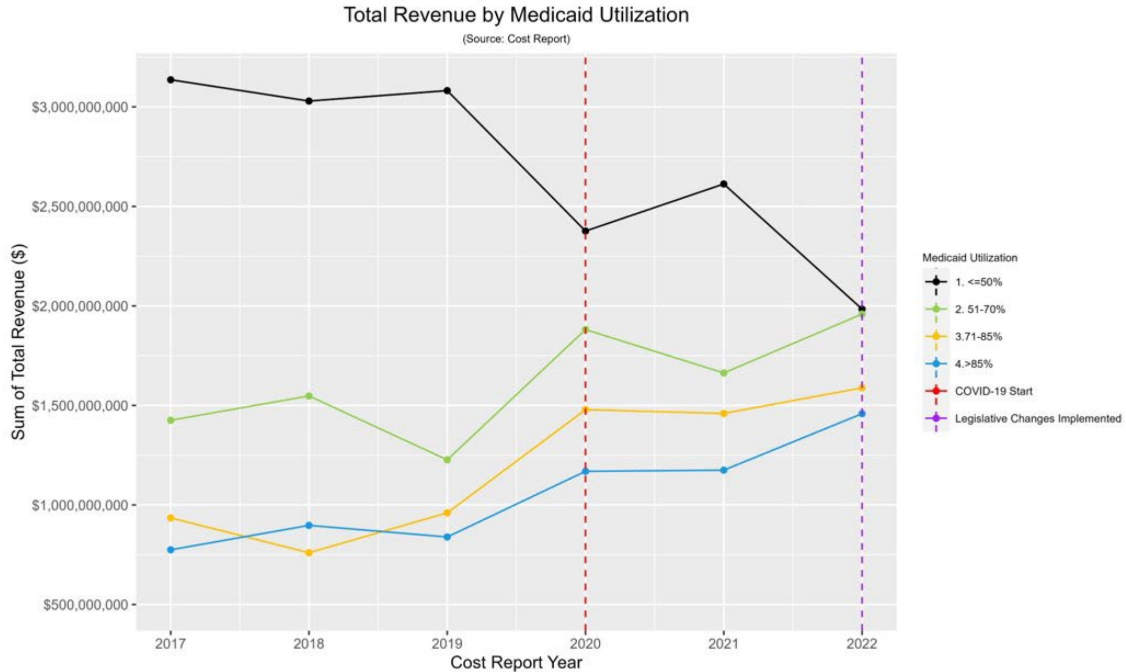

Figure 56. Total Revenue by Medicaid Utilization

Over the last three years (2019-2022) low-Medicaid facilities (< 50%) have seen revenue declines while higher-Medicaid facilities have seen consistent increases.

Revenue trends might also differ by facility size, i.e., total resident bed days. Figure 57 below shows that facilities with the largest total resident bed days had an increase of 15% in fiscal year 2022, while those with total resident bed days less than 33,000 had a decline of 10%. The increase in revenue in 2022 for the largest facilities followed years of decline. Over the full study period (2017-2022), only those largest facilities -- with more than 55,000 resident bed days per year -- showed a decline in revenue.

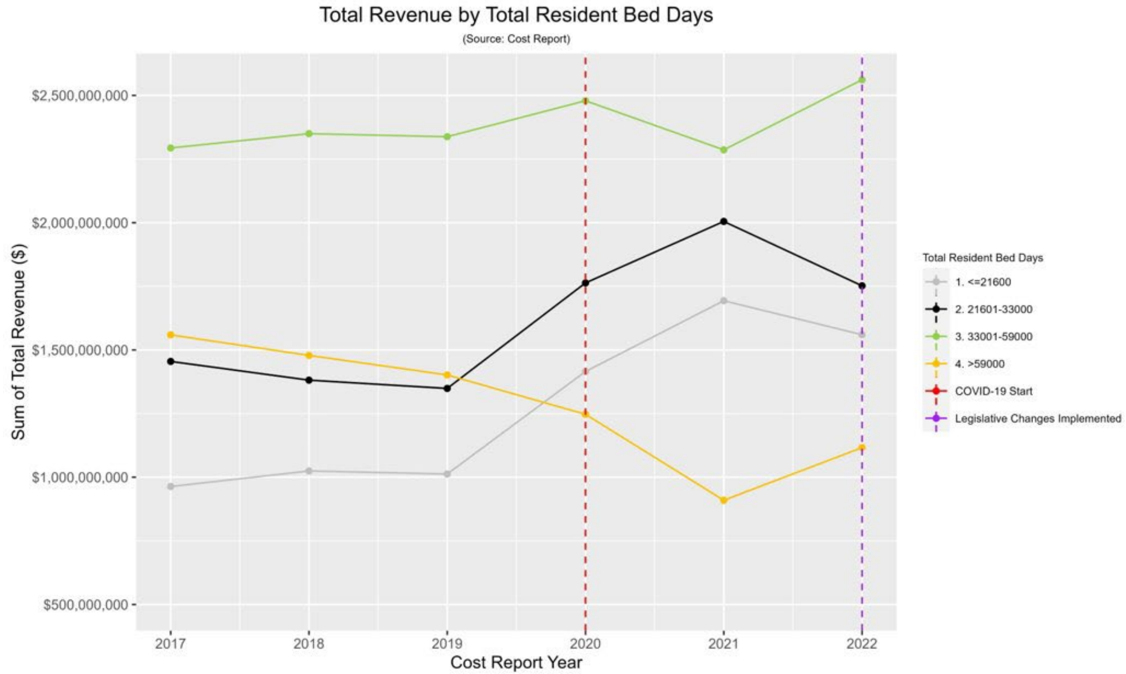

Figure 57. Total Revenue by Total Resident Bed Days

Measuring facility size by the number of available beds shows a similar if muted dynamic: only the largest facilities saw a decline in revenue during the six-year study window. Moreover, when sub-grouped by number of beds, revenue trends for all facilities appears flat since the start of COVID-19 and through nursing facility fiscal year 2022, as shown in Figure 58.

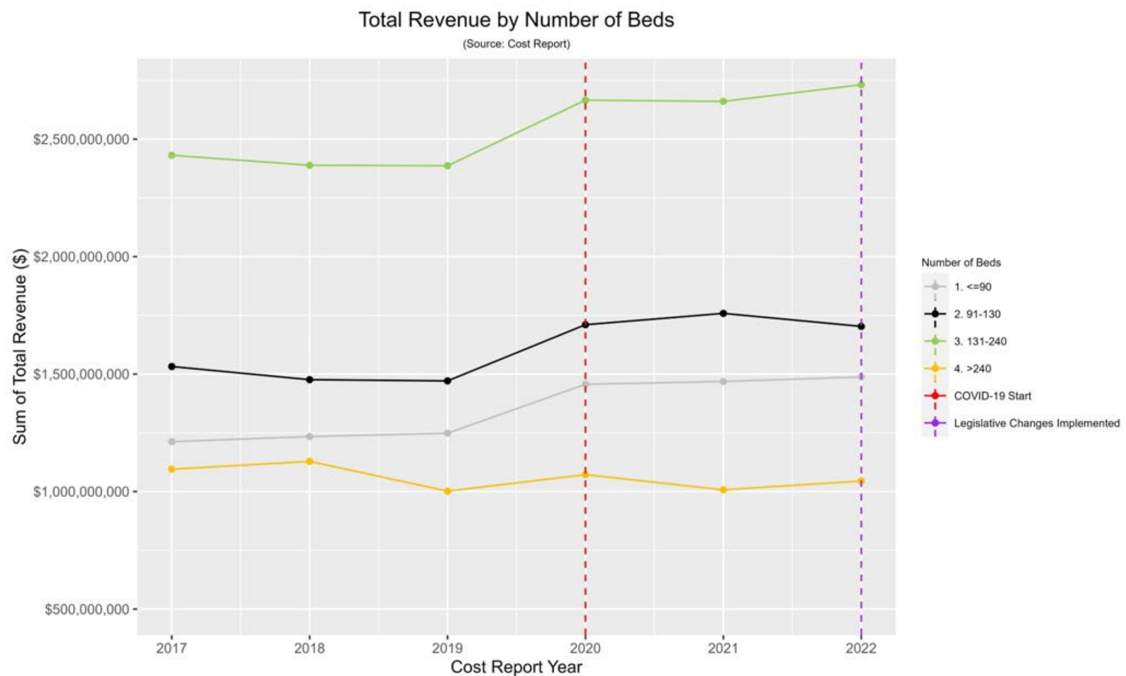

Figure 58. Total Revenue by Number of Beds

Revenue trends for facilities grouped by HSA classification reveals little variation: both Chicago-area and non-Chicago nursing facilities saw increases with the onset of COVID in 2020 followed by relatively little change in 2021 and 2022.

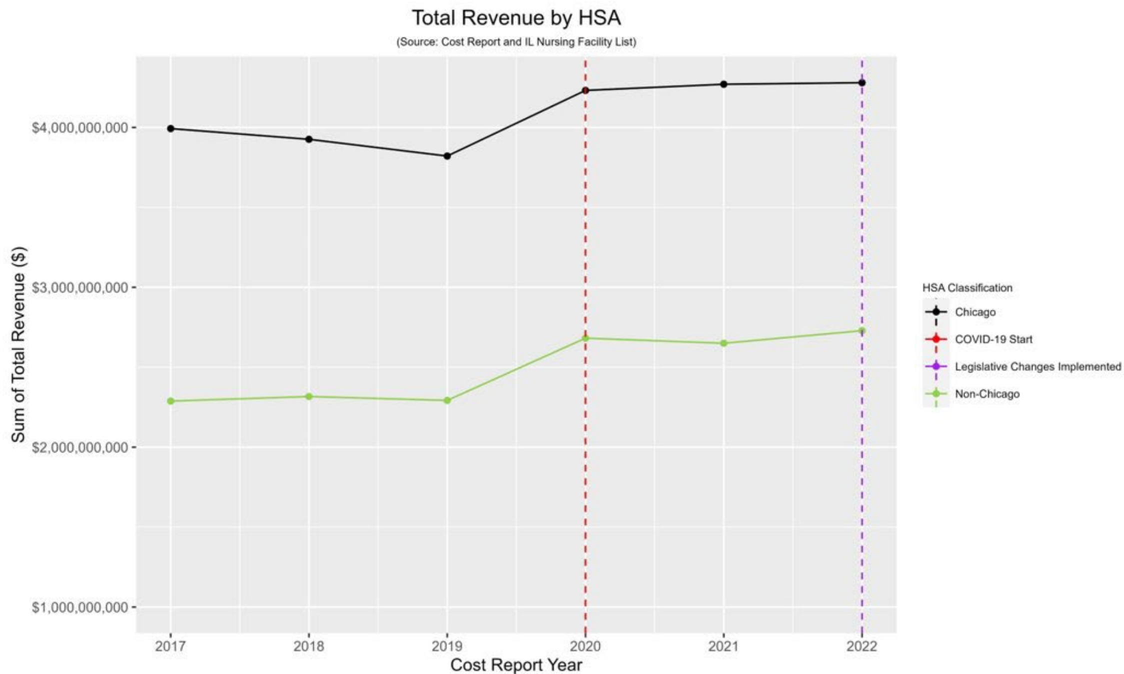

Figure 59. Total Revenue by HSA

As one basis for profitability, this analysis used the same rules of accounting that were applied in published analysis evaluating the anticipated impact of the 2022 reforms. HFS' approach calculates adjusted net income by starting with reported net income in the annual cost reports, then adding net income from outside organizations providing services, financing or other support to nursing facilities if those organizations are owned by the nursing facility's owner(s) or a direct family relation of the facility's owner(s). In a second characterization of profitability the analysis starts with reported net income and then accounts for differences in interest related expenses, taxes, and non-cash accounting deductions such as depreciation and amortization by calculating the commonly used metric Earnings Before Interest payments, Taxes, Depreciation, and Amortization (EBITDA). Results are stratified by Medicaid utilization.

Profitability as characterized by EBITDA in Figure 60 below shows high average margins of 25-35% over the study period, with far less volatility during the COVID pandemic than would be expected given rhetoric and discussion in the national press and in the context of the two-year reform effort in Illinois. By 2022, EBITDA profitability was highest for facilities with at least 85% Medicaid utilization, but margins for all tiers of Medicaid utilization were slightly lower than in 2017 and all showed declines in 2022 as the pandemic waned and the 2022 reforms began to take effect.

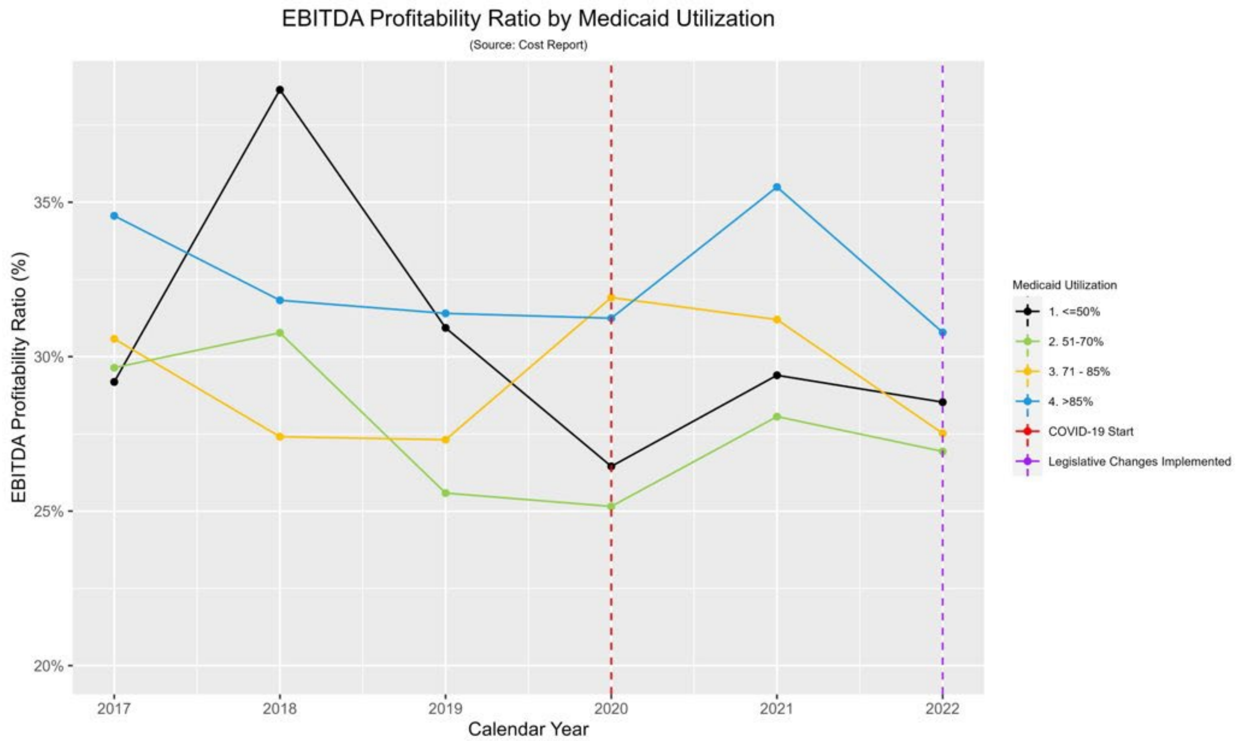

Figure 60. EBITDA Profitability Ratio by Medicaid Utilization

Profitability as characterized by adjusted net income in Figure 61 below is lower and more volatile than observed using EBITDA, peaking during the pandemic years 2020 and 2021 and ending in 2022 with higher net earnings than were observed in 2017.

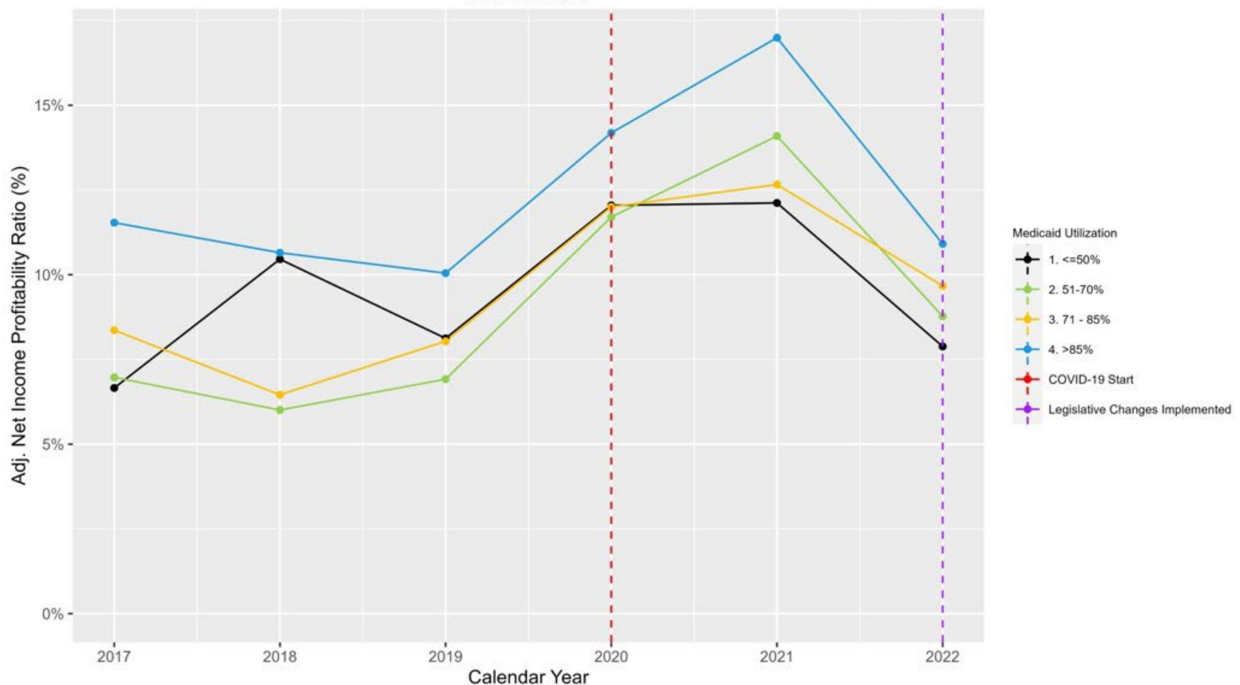

Figure 61. Adjusted Net Income Profitability Ratio by Medicaid Utilization

From the figures above, it is observed that in the last two years on an EBITDA basis, earnings have increased, while on an adjusted net income basis, overall earnings declined from 2021 to 2022. Earnings are also significantly higher using EBITDA, a difference indicating that the amounts paid for interest, taxes, and costs associated with depreciation and amortization. This difference is mitigated by any portion of interest and amortization payments that yield profits to outside organizations owned by someone related to a facility's owner(s), since those upstream profits are included in our accounting of adjusted net income for the facility (in Figure 61). Despite these variations, and using either method, nursing facilities have consistently shown positive if not in some cases potentially excessive earnings, especially during the pandemic. Additionally, and with only one exception, nursing facilities with the highest Medicaid utilization (above 85%) have the highest profit ratios.

Using either methodology nursing facilities have consistently shown positive if not in some cases potentially excessive earnings, especially during the pandemic, and as in the 2021 report, profitability was found to be highest in facilities with the highest percentage of Medicaid residents.

Nursing facilities' bad debt was also analyzed. Under Generally Accepted Accounting Principles (GAAP), there are several ways to measure bad debt. Bad debts recorded using GAAP requires judgement based on historical experience and typically requires several attempts to collect before fully writing them off.

Two of the most popular methods to estimate allowance for bad debt under GAAP are the accounts receivable aging method and the percentage of net patient revenue method. Under the aging receivable method, a percentage of accounts receivables that have aged more than a certain period would be deemed uncollectable based on previous experience. Under the percentage of net patient revenue method, a certain percentage of net patient revenue would be deemed uncollectable based on historical experience. Nursing facilities did not report which method they used in reporting bad debt.

With either accounting method there would typically be lags between the actual accrual of bad debt and the recording of an allowance for bad debt. As Figure 62 shows, bad debt increased for high Medicaid utilization facilities between 2020 to 2021, even though during the public health emergency, no one was disenrolled from Medicaid. Typically, as the number of Medicaid enrollment increases, the amount of bad debt would decrease. However, with this lag, the decrease in bad debt would not be realized until several periods later.

While bad debt appears to have spiked in 2021 for higher-Medicaid facilities, levels in 2022 appear to be within the range of normal year-to-year variation during the study period, and do not appear to account for a meaningful percentage of profit.

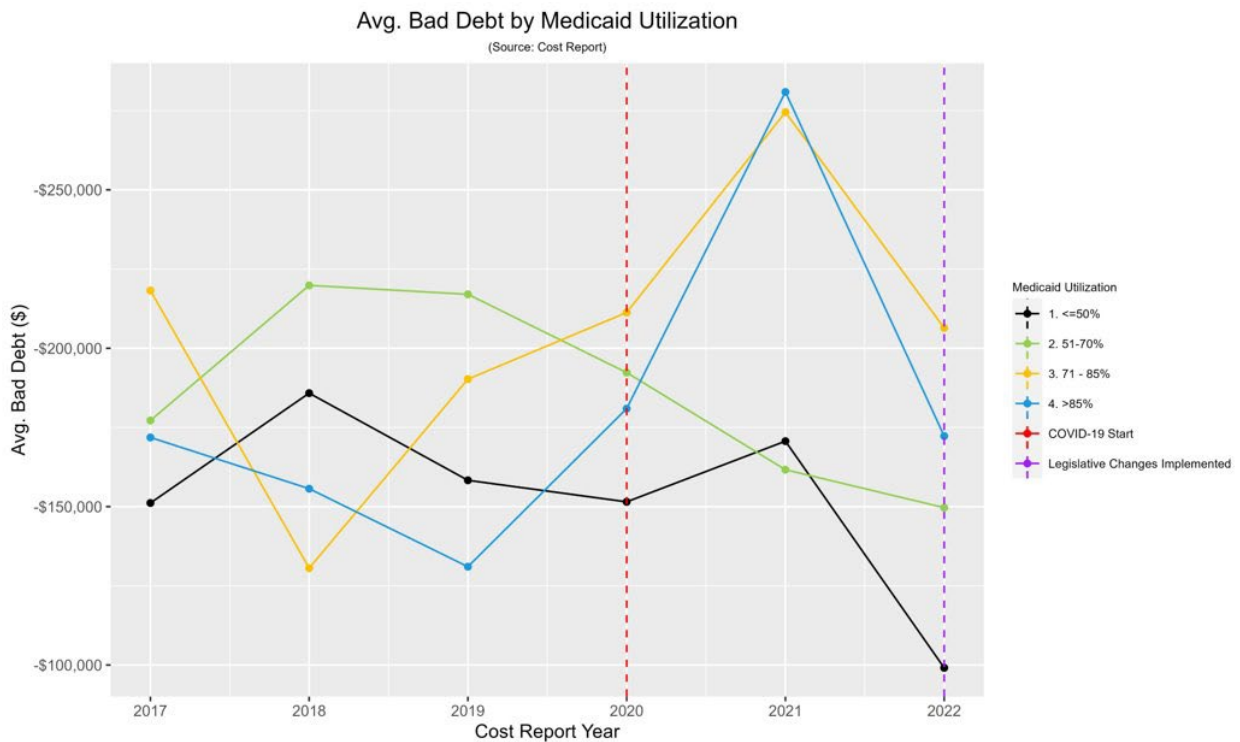

Figure 62. Average Bad Debt by Medicaid Utilization

XII. Conclusion

This interim report is an important step in assessing Illinois' 2022 Nursing Home Payment Reforms, focusing on staffing, quality of care, and beginning to develop a more detailed financial analysis of profitability. The interim report sheds light on early changes in nursing facility operations, staffing, demographics, quality of care, billing, coding, and profitability during and immediately following implementation of the 2022 reforms. The report provides a financial and operational baseline that future reports, evaluations, and independent research can build on. This interim report—which does not include recommendations for changes in policy nor payment—nevertheless provides a new empirical base with which to engage stakeholders, gather feedback, and help shape the comprehensive analysis, policy review and development of any recommendations to be incorporated into the agency’s report to the 2025 legislature.