#### PART 1

**Report: Staffing and Care Outcomes in Long-Term Care Facilities** 

#### 1. Introduction

The Centres for Medicare and Medicaid Services (CMS) provide comprehensive staffing data that I explored to reveal critical insights on the quality of nursing home care. Clipboard Health, a provider of contract healthcare staffing services, might leverage these insights to deliberately focus on under-resourced facilities. The analysis addresses the influence of staffing levels, specifically the hours of Licensed Practical Nurses (LPNs) and Certified Nursing Assistants (CNAs), on patient outcomes, including rehospitalisation and emergency department visits for both short-term and long-term residents.

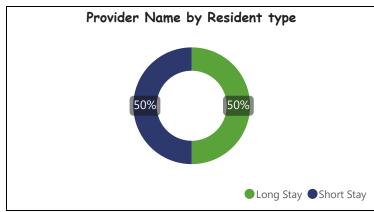
#### 2. Data Overview

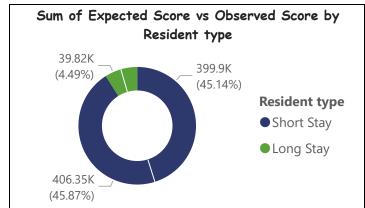
The PBJ and CMS data analyzed in this report includes the following key variables:

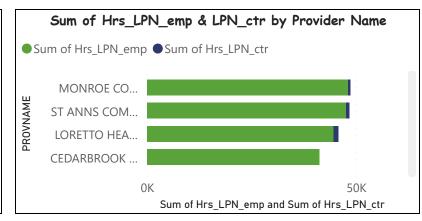
- LPN Employee Hours (LPN\_EMP): Hours worked by licensed practical nurses employed full-time by the nursing home.
- LPN Contractor Hours (LPN\_CTR): Hours worked by licensed practical nurses employed temporarily as contractors.
- CNA Employee Hours (CNA\_EMP): Hours worked by certified nursing assistants employed full-time.
- CNA Contractor Hours (CNA\_CTR): Hours worked by CNAs employed as contractors.
- Resident Types: Short-stay and long-stay residents, which are critical in understanding patient outcomes like rehospitalization and emergency visits.

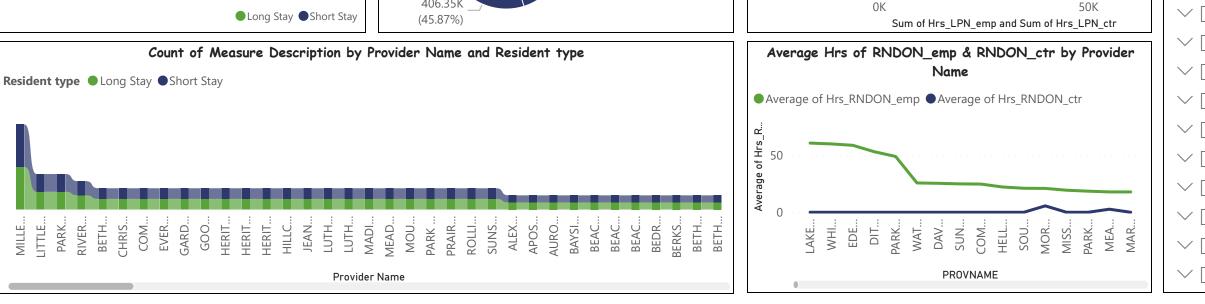
I also used outcome metrics such as:

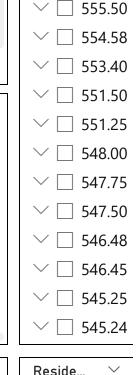
- Percentage of short-stay residents who had an outpatient emergency department visit.
- Percentage of short-stay residents who were rehospitalized after a nursing home admission.
- Number of hospitalizations per 1000 long-stay resident days.
- Number of outpatient emergency department visits per 1000 long-stay resident days.









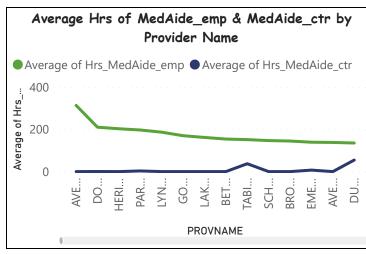


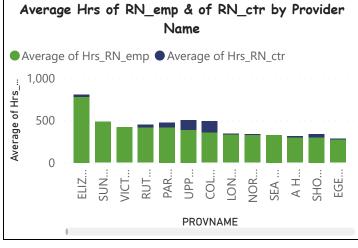
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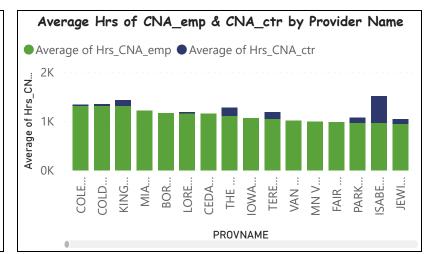
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## 3. Key Insights and Findings

### **Insight 1: Understaffing in Certain Care Facilities**

Analysis indicated that several care facilities had markedly reduced contractor staffing levels, especially in LPN\_CTR hours. The deficiency in staffing correlated with suboptimal outcomes for short-stay residents, characterised by increased rates of rehospitalisation and referrals to outpatient emergency departments.

• Analysis of Charts: The bar chart comparing LPN\_CTR and LPN\_EMP by provider name indicated that numerous facilities exhibited inadequate contractor hours (under 10% of total LPN hours), which corresponded with elevated rehospitalisation rates.

# **Insight 2: Short-Stay Resident Outcomes Affected by Staffing Levels**

Facilities with reduced overall staffing—especially those predominantly employing full-time personnel with minimal contractors—exhibited elevated rates of short-stay residents being rehospitalised or seeking emergency care immediately after admission.

• Visualization: A line chart illustrating the correlation between the percentage of short-stay residents rehospitalised and staffing levels revealed a distinct relationship: as contractor hours diminished, rehospitalisation rates escalated, suggesting that short-stay patients were not receiving the requisite timely treatment.

# **Insight 3: Long-Stay Resident Outcomes and Hospitalization Rates**

In long-term care institutions, inadequate staffing—both contractual and full-time—was associated with elevated hospitalisation rates per 1000 long-stay resident days. This indicates that insufficient staffing levels, especially in facilities with restricted contractor hours, deteriorate long-term care results.

A stacked bar chart illustrating hospitalisations per 1000 long-stay resident days per institution revealed that facilities with a lower number of contractor LPN hours had elevated hospitalisation rates.

#### 4. Recommendations to Sales Leadership

### **Recommendation 1: Focus on Facilities with Insufficient Staffing**

Clipboard Health must to concentrate on promoting its contractor services to facilities exhibiting the lowest utilisation of contractor LPN and CNA hours. These facilities are experiencing challenges with rehospitalisation and emergency visits, which could be ameliorated through enhanced staffing.

• Supporting Information: The inverse relationship between reduced LPN\_CTR hours and deteriorating short-stay resident outcomes indicates that institutions with few contractor hours are optimal candidates for staffing interventions.

#### Recommendation 2: Enhance Contractor Flexibility to Optimise Short-Stay Care

Establishments that heavily depend on full-time staff and minimally utilise contractors generally exhibit subpar short-stay resident outcomes. Clipboard Health offers contractors as a versatile, scalable approach to address care deficiencies and enhance outcomes for short-stay residents, especially in mitigating rehospitalisation.

• Actionable Step: Sales teams may provide data-driven insights to facility administrators demonstrating how an increase in contractor hours can directly enhance the quality of short-stay care.

# Recommendation 3: Highlight the Significance of Contractor Assistance for Long-Term Residents

Long-term patients in institutions with minimal contractor hours experience elevated hospitalisation rates. Clipboard Health may suggest augmenting contractor personnel levels to ensure uninterrupted treatment, diminish prolonged hospitalisations, and decrease overall care expenses for facilities.

• Sales Strategy: Develop tailored sales presentations that highlight the significance of contractor assistance in enhancing long-term care and minimising hospital admissions.

# Recommendation 4: Provide Customised Staffing Solutions According to Facility Size and Complexity

Nursing homes and long-term care facilities possess diverse needs, with staffing requirements fluctuating according to criteria such as facility size, resident demographics, and care complexity. Clipboard Health can provide customised staffing solutions that align with the unique requirements of facilities, informed by their previous staffing data and patient outcomes.

The data indicates that smaller institutions or those with more intricate patient demographics are more dependent on full-time staff, leading to understaffing during peak periods. This consequently impacts the quality of care, particularly for short-stay patients, who exhibit elevated rehospitalisation rates.

• Sales Strategy: Create adaptable packages that allow facilities to adjust contractor hours as required. Concentrate on facilities exhibiting reduced average contractor hours, particularly in CNA or LPN positions, while demonstrating significant variability in patient outcomes, especially during peak periods such as the winter flu season or post-holiday surges.

# Recommendation 5: Establish Clipboard Health as a Principal Ally in Enhancing Regulatory Compliance and Ratings

Healthcare institutions are frequently assessed according to patient outcomes, such as readmission rates and emergency department visits. These criteria are crucial for assessing a facility's overall ranking (e.g., CMS star ratings). Clipboard Health can establish itself as a strategic ally that assists facilities in enhancing their ratings by guaranteeing sufficient staffing, which directly influences patient outcomes and adherence to regulatory standards.

Facilities with increased contractor hours typically demonstrate improved patient outcomes, including reduced hospital readmissions and fewer emergency visits. The outcomes significantly influence ratings, impacting a facility's reputation, funding, and capacity to attract new residents.

• Sales Strategy: Leverage data insights to demonstrate that enhancing staffing levels can improve patient care, ensure compliance with CMS guidelines, and elevate ratings. Clipboard Health

provides specialised contractor services to rectify personnel shortages and assist facilities in meeting or beyond regulatory standards.

#### 5. Conclusion

The data analysis underscores the critical role that contractor staffing plays in improving both short-term and long-term care outcomes. Clipboard Health has an opportunity to target under-resourced facilities by demonstrating the positive impact of contractor hours on patient outcomes, particularly for facilities struggling with rehospitalization and emergency visits.

By using data from the CMS staffing reports and patient outcomes, Clipboard Health can create customized staffing solutions to meet the needs of care facilities, ultimately improving resident care while addressing staffing shortages.