Below is a draft Next Steps Report focused on advancing the analysis for the third SMART question—Comparative Trend and Cost Correlation Analysis:

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 Next Steps Report: Comparative Trend and Cost Correlation Analysis  
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1. Objective  
    • Refine our understanding of how temporary staffing patterns differ between direct care (nursing) and support (non-nursing) roles in Q2 2024 and quantify their correlations with extra costs (overtime, agency fees, and penalties).
2. Current Status  
    • Metrics for temporary staffing in both direct care and support roles have been defined and initially reviewed.  
    • Preliminary insights indicate variation in contract usage between roles.  
    • External CMS datasets (Skilled Nursing Facility Quality Reporting, FY\_2025\_SNF\_VBP\_Facility\_Performance, and NH\_Penalties\_Jan2025.csv) have been identified for integration to correlate staffing trends with cost outcomes.
3. Next Steps

a. Data Integration and Preparation  
 • Merge internal staffing data with external CMS cost datasets using common identifiers (e.g., Medicare Provider Number, Facility Name).  
 • Validate data consistency across merged datasets, ensuring that cost fields (overtime expenses, temporary staffing fees, penalty amounts) are accurately represented.  
 • Address any missing or anomalous cost data points through imputation or exclusion, as appropriate.

b. Enhanced Metric Computation  
 • Refine temporary staffing ratio calculations for both direct care and support roles to ensure comparability.  
 • Compute aggregated metrics (e.g., average daily temporary staffing ratios per facility) for direct care and support groups separately.  
 • Develop summary statistics (mean, median, standard deviation) for extra cost variables to set baseline cost profiles.

c. Exploratory Data Analysis (EDA)  
 • Conduct time-series analysis for both staffing ratios and cost variables to uncover trends, patterns, and outlier events over Q2 2024.  
 • Use visualization tools (line charts, box plots, scatter plots) to compare staffing patterns between the two groups and to visually inspect correlations with cost variables.

d. Correlation and Regression Analysis  
 • Calculate correlation coefficients (e.g., Pearson, Spearman) between temporary staffing ratios and each extra cost metric.  
 • Develop regression models to quantify the impact of changes in temporary staffing on overtime expenses, agency fees, and penalties.  
 • Test for potential confounding factors (e.g., facility size, resident census) to isolate the true effect of staffing patterns on costs.

e. Outlier and Sensitivity Analysis  
 • Identify facilities with extreme temporary staffing ratios or cost measures to determine if they are driving the overall trends.  
 • Conduct sensitivity analysis by excluding these outliers and comparing results to ensure robust conclusions.

f. Actionable Insights and Reporting  
 • Synthesize analytical findings into clear, data-driven recommendations for optimizing staffing practices.  
 • Prepare visual dashboards and summary reports to communicate correlations between temporary staffing and extra costs effectively to Clipboard Health sales leadership.

1. Timeline & Milestones  
    • Week 1–2: Complete data integration and cleaning across internal and external datasets.  
    • Week 3: Finalize metric calculations and conduct exploratory analyses.  
    • Week 4: Perform correlation and regression analysis; draft initial findings report.  
    • Week 5: Review and refine insights; prepare final recommendations and visualizations for stakeholder presentation.
2. Conclusion  
    By systematically merging our internal staffing data with external cost metrics and employing rigorous analysis methods, the next steps will help us uncover the financial impact of temporary staffing. The insights will support a strong business case for staffing optimization through targeted interventions and technology-driven solutions.

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 This Next Steps Report outlines the roadmap for refining our analysis of the third SMART question’s variable. Let me know if you’d like to adjust any part or if you need further details on any of the steps.

### **Recommendations**

1. **Validate Data Integrity**
   * Investigate facilities with **100% contract non-nursing staff on June 1st**.
   * Confirm whether this was a **reporting error or an actual operational event**.
2. **Further Segmentation of Facilities**
   * Group facilities by **contract reliance categories**: Low (<5%), Moderate (5-15%), and High (>15%).
   * Analyze whether **high contract-reliance facilities face higher costs, penalties, or staff turnover**.
3. **Correlate Staffing Trends with Cost & Regulatory Data**
   * Merge with **overtime, penalty, or agency fee data** to see if contract-heavy facilities have **higher financial burdens**.
   * If direct cost data is unavailable, use **deficiency citations from regulatory reports** as a proxy.
4. **Monitor for Additional Anomalies**
   * Track upcoming payroll cycles to see if similar **100% contract staff events** occur again.
   * If the trend repeats, investigate **staffing agency contracts and facility scheduling policies**.