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The Impact of the COVID-19 Pandemic on Medicaid Prescription Trends for Type 2 Diabetes (2018-2024)

Objective: This study evaluates Glucagon-like peptide-1 receptor agonists (GLP-1 RAs) drug utilization patterns and Medicaid reimbursement patterns by comparing pre-pandemic, post pandemic drug utilization data from 2018 and 2024. The study focuses on if COVID-19 pandemic had an impact on the utilization trends, reimbursement costs, and the adoption of new drug formulations.

Method:Study data were extracted from the Medicaid State Drug Utilization Dataset for the years 2018 and 2024 from Medicaid.gov website. Descriptive statistics and several SAS procedures like PROC FREQ, PROC MEAN, and PROC GLM were used to study pandemic influence to understand utilization, reimbursement trends and statistical significance. The analysis also examined geographic variations by comparing trends across major U.S. states.

Results:Post-data cleaning, 22,455 observations of GLP-1 drugs were analyzed, year, number of prescriptions and Medicaid amount reimbursed were key variables. Overall GLP-1 prescriptions increased 5.5 folds from 2,650 in pre-pandemic period to 14,649 in post-pandemic period. Ozempic remained highest prescribed drug among all GLP-1's across all phases. Additionally, newer drugs such as Wegovy, Mounjaro showed significant increase in post-pandemic utilization, particularly in NY, CA, and NJ. Medicaid spending on GLP-1 drugs reached \$22.70 billion post pandemic compared to \$1.94 billion in pre-pandemic period. The ANOVA results from GLM procedure showed significant differences in Medicaid reimbursement based on both pandemic period and drug family (p < 0.0001 for both), confirming the observed increase in spending and utilization.

Conclusion:The study explains a substantial rise in GLP-1 prescriptions and Medicaid reimbursements post-pandemic. Geographic disparities were seen in usage of different drugs with the adoption of newer formulation. The study lacks data granularity which is needed to assess disparities and future cost trends in drug access & usage.