

Georgia Registry of Immunization Transactions and Services (GRITS): Accuracy of Up-To-Date Coverage Rates Among 24 Month Olds in Georgia

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Background: The annual Georgia Immunization Study (GIS) employs a retrospective cohort research design to determine the up-to-date (UTD) immunization rate for 24-month-old children born in Georgia. Results from the 2013 GIS were compared with data obtained from the Georgia Registry of Immunization Transactions and Services (GRITS) alone to ascertain how accurately GRITS data reflect UTD immunization rates by 24 months of age before parent or provider validation.

Methods: A stratified random sample of 2,489 children born in Georgia who were 24 months in January 2013 was selected. Identifying information was obtained from electronic birth records, and immunization data were obtained from GRITS. For children inadequately immunized (4:3:1:3:3:1:4 level) based on Advisory Committee on Immunization Practices (ACIP) recommendations, health department staff contacted parents and providers for additional information. Immunization data were analyzed in conjunction with demographic variables obtained from State Vital Records. The number of children UTD by 24 months in GRITS was compared with the number UTD by 24 months after immunization history was validated via parent and provider contact. Differences in coverage rates were calculated using a one-tailed T test. Level of significance was determined using an alpha value of 0.05.

Results: Based on GRITS alone, 80.2% of 24 month old children in the GIS were UTD. This rate increased to 85.0% following parent/provider follow up (95% CI [0.030, 0.065]). This significant increase in the rate was reflected across multiple demographic categories including: maternal race/ethnicity, maternal age, education, marital status, and history of previous children, health insurance status at birth, Women Infant and Children (WIC) enrollment, provider type (public versus private), and number of providers. When the difference in coverage rates was analyzed by District, UTD rate increases ranged from 0 to 15% (median 3.9%) although only three of 18 Districts had increases that were significant (95% CI [0.015, 0.167], [0.021, 0.153] [0.065, 0.235]).

Conclusion: Using 2013 GIS data, there was no significant difference between UTD immunization rates based on GRITS and those determined to be UTD after parent/provider contact in 15 of 18 districts in GA, despite a significant difference in the State rate as a whole, indicating that GRITS data provides a reasonable measure of true coverage rates among 24-month-old children in GA. Further identification of factors contributing to immunization documentation failure as well as outreach to providers is needed to improve GRITS record completeness.