Pennsylvania Trend Analysis in Childhood Immunizations from March 15, 2020 to May 6, 2020

On March 13 a national pandemic was declared with various statewide stay at home and shelter in place orders. Some research has shown that this response to the COVID-19 pandemic negatively impacted the administration of relevant vaccines (those that are routinely recommended for patients within each age group).*

On March 6, Pennsylvania recorded the first cases of COVID-19. Beginning on March 12, the Governor and the Secretary of Health issued stay at home orders which eventually applied to the entire state. The impact on immunizations from March 15 – May 6, 2020 was analyzed at the state level to see if there were similar trends in the administration of relevant vaccines. Metrics of relevant vaccines administered were calculated per 100,000 patients resulting in the rate of patients receiving a relevant immunization. By including only relevant vaccines, the data remain directly tied to required immunizations.

Patients included in these analyses are required to have active status within the Pennsylvania State Immunization Information System (PA SIIS) and be a known resident, based on zip code, of the PA SIIS jurisdiction (this includes all counties except Philadelphia County).

Using a list of relevant immunizations, the analyses reported vaccine administration metrics for the following age groups during the time periods of March 15 – May 6 for the past five years (2016 – 2020): 0 – 11 months, 1 – 3 years, 4 – 6 years, 7 – 10 years and 11 – 18 years. The data suggests that during the period of March 15, 2020 to May 6, 2020, in comparison to the same time frame during the previous four years, there was a decrease in vaccine administration for the identified age groups. This decrease ranged from 13% to 79% across the age ranges of 0-18 years.

Note: This data reflects immunizations reported by participating providers registered in PA SIIS. This registry is voluntary, so this does not capture all providers or immunizations in the state.

The following graphs depict the results of this analysis.

*Effects of the COVID-19 Pandemic on Routine Pediatric Vaccine Ordering and Administration — United States, 2020 Weekly / May 15, 2020 / 69(19);591–593
Patients Served Rate by Age Group
March 15 - May 6
Average 2016-2019 Compared to 2020

Immunizations Administered per 100,000 Patients by Age Group
March 15 - May 6
Average 2016-2019 Compared to 2020