

**FY 2019-2020 Virginia Beach Budget
Response to Council Questions**

Question Number: FY 20 45

Question: Have we seen an increase in the diagnosis of pertussis due to a lack of Tdap vaccinations?

Date Requested: April 2, 2019

Requested By: Councilmember Abbott

Department: Health

Response:

In the summer of 2018, the Virginia Beach Department of Public Health had targeted Tdap vaccination outreach in the Bayside district due to low immunization rates that impacted student attendance and subsequent funding. This targeted outreach greatly improved vaccination rates for this district and allowed more children to be in attendance on the first day of school. Although Bayside had lower vaccination rates than other areas, there is no indication that morbidity rates are higher for vaccine preventable diseases in the Bayside district.

Pertussis is a contagious disease and therefore the herd effect and vaccination is important in preventing the spread of this disease. VBDPH has not reported an outbreak of Pertussis in Virginia Beach since 2015, and it was unrelated to the Bayside area. This could be a result of herd immunity. When a sufficient portion of the population is immune to a communicable illness, the opportunity for person to person spread is greatly diminished. Vaccination against vaccine-preventable illness is the safest and most effective means of achieving significant immunity within a population. The herd effect is obtained when 90% – 95% of the community is vaccinated, Virginia Beach exceeds this at 96.2% for 6th graders vaccinated and therefore is more likely to be protected. Not all members of the community can be vaccinated due to medical reasons or, in the case of diseases like pertussis, individuals who are too young to receive or to have completed their initial series of vaccination. Vaccination of the larger community serves as a buffer of protection around those who cannot be vaccinated.

Based on the Virginia Student Immunization Status Survey, 96.2% of Virginia Beach 6th grade students are immunized as last reported in Fall 2018. This is comparable to the state public school coverage rate of 96.1% for 6th graders. This information is self reported from public and private schools in the state. Some members of the population receive medical exemptions from vaccination due to ongoing health issues. Exemptions have grown across the US for medical and religious or other reasons. When exemption rates are high, herd immunity is difficult to achieve. In Virginia Beach, the proportion of individuals who obtained exemptions against school required vaccinations is fortunately low in comparison to many US communities experiencing outbreaks recently.