Impacts of COVID-19 on Childhood Vaccination Coverage in the United States
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Introduction:
Since initial outbreaks of SARS-CoV-2 and the declaration of a national emergency on March 13th, 2020, all 50 states have implemented non-pharmaceutical interventions (NPIs). These orders were made to slow the spread of COVID-19. Many physicians’ offices in the United States were forced to take precautions to minimize the spread of COVID-19 among their patients. Access to child wellness checkups and vaccination services for people in the United States has been reduced. An unknown number of children in the United States have likely missed one or more routine vaccinations and are now currently under- or unvaccinated.

Objective of the Study:
To conduct a literature review regarding the impact of COVID-19 on childhood vaccination coverage in the United States. To summarize latest reports regarding changes in childhood vaccination coverage and identify sources of data to estimate historical and current childhood vaccination coverage. Overall goal of the study was to complete the preliminary research necessary to identify future steps for my senior thesis project to continue to pursue in the fall.

Results:
A Morbidity and Mortality Weekly (MMWR) shows that there were nationwide declines in orders for VFC-funded, ACIP-recommended non-influenza childhood vaccines beginning the week after the United States declared a national emergency [1]. The vaccines recommended by the ACIP protect against 14 potentially severe diseases, vaccine-preventable diseases (VPDs) [2].

Discussion:
Vaccination is considered one of the greatest public health achievements. Sharp declines in vaccination coverage reported in MMWRs suggests many children are at risk of contracting and spreading VPDs. Reductions in childhood vaccination coverage is an urgent problem that may result in severe outbreaks of VPDs as well as increases in hospitalizations, deaths, and health care costs associated with VPDs. It is necessary to evaluate the exact extent in which the COVID-19 pandemic has reduced childhood vaccination coverage in the United States. This will enable researchers to estimate the future impact of vaccine-preventable diseases and inform policy recommendations regarding childhood vaccination.

Future Steps:
To compile and analyze historical data on disease incidence and childhood vaccination rates. To evaluate the extent in which the COVID-19 pandemic has changed childhood vaccination coverage in the United States. To create models that simulate the impacts of changes in childhood vaccination coverage and provide researchers with estimates of the future incidence of cases, hospitalizations, deaths and costs due to vaccine-preventable diseases.

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[2] Centers for Disease Control and Prevention, "Immunization Schedules".