Project Title: Evaluation of the impact of changeover from 23vPPV to 13vPCV booster in Indigenous children

Host School/ Institute: The Children's Hospital at Westmead Clinical School

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Project Type: Data Analysis

Project Category: Epidemiology, Immunology & Infection, Public Health, Paediatrics/Child Health

Project Keywords:
1. Evaluation
2. Immunisation
3. Pneumococcal disease

Project Description:

Indigenous Australian children are at significantly higher risk of invasive pneumococcal disease (IPD) compared to non-Indigenous children. As a result a booster dose of pneumococcal vaccine is recommended for Indigenous toddlers in certain states/territories (NSW, QLD, SA, NT). The vaccine used for this booster dose was initially 23-valent pneumococcal polysaccharide vaccine (23vPPV). However in 2012, this was replaced with 13-valent pneumococcal conjugate vaccine (13vPCV). While 23vPPV provides protection against more pneumococcal serotypes in total than 13vPCV, it is significantly less effective against individual serotypes.

This project aims to evaluate the impact of changeover from 23vPPV to 13vPCV booster, and potentially to compare with impact of similar program change in Native American populations (subject to negotiation with US colleagues). Disease impact will be assessed using IPD notification data from the National Notifiable Diseases Surveillance System. Vaccine coverage will be assessed using data from the Australian Childhood Register. Crude and age-specific annual rates will be calculated using mid-year population estimates obtained from the Australian Bureau of Statistics.

This project would suit a student who has some data analysis skills and is interested in developing them further. Product would be a scientific report, with possible potential to be co-author on any subsequently arising peer reviewed publication.