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Taylor Jarvill

Jeffrey Downen

Brittany Gaudet BS, MSPH

Nina Liu

Cecilia E. Zemanek BS

*See next page for additional authors*

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## **Authors**

Taylor Jarvill; Jeffrey Downen; Brittany Gaudet BS, MSPH; Nina Liu; Cecilia E. Zemanek BS; Ceyda H. Sablak BS; Allison N. Kayne BS; Hope Kincaid MPH, CPH; Amy B. Smith PhD; Robert D. Barraco MD, MPH; Hoonani M. Cuadrado; and Marna R. Greenberg DO, MPH, FACEP



# Comparing Completion of Early Childhood Vaccines to Late Childhood Vaccines in Adolescent Emergency Shelter Residents

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Lehigh Valley Health Network, Allentown, Pennsylvania

## Background

- 1 in 30 children experience homelessness every year
- This population has a higher risk for infectious disease than stably housed peers and faces barriers to well child care, which may prevent routine immunizations
- CDC recommends early childhood vaccination with IPV, MMR, HepB, DTaP, VAR, and Hib and late childhood vaccination with HPV, MenACWY, and Tdap

## Problem Statement

This project aimed to determine and compare the completion rates of early childhood vaccines to late childhood vaccines in adolescent residents of an emergency housing shelter.

## Methods

- IRB-approved cross-sectional retrospective chart review was conducted on state mandated physicals performed from 2/19/15-9/5/19 at adolescent emergency housing shelter
- Completed early childhood vaccine regimen defined as complete Hep B, DTaP, Hib, IPV, MMR, and VAR
- Completed late childhood vaccine regimen defined as complete for age Tdap, MenACWY, and HPV

## Results

- Completion of late childhood vaccines was significantly related to completion of early childhood vaccines (OR 2.290, 95% CI 1.342-3.910, p=0.003)

Figure 1: Vaccine Set Completion Rates

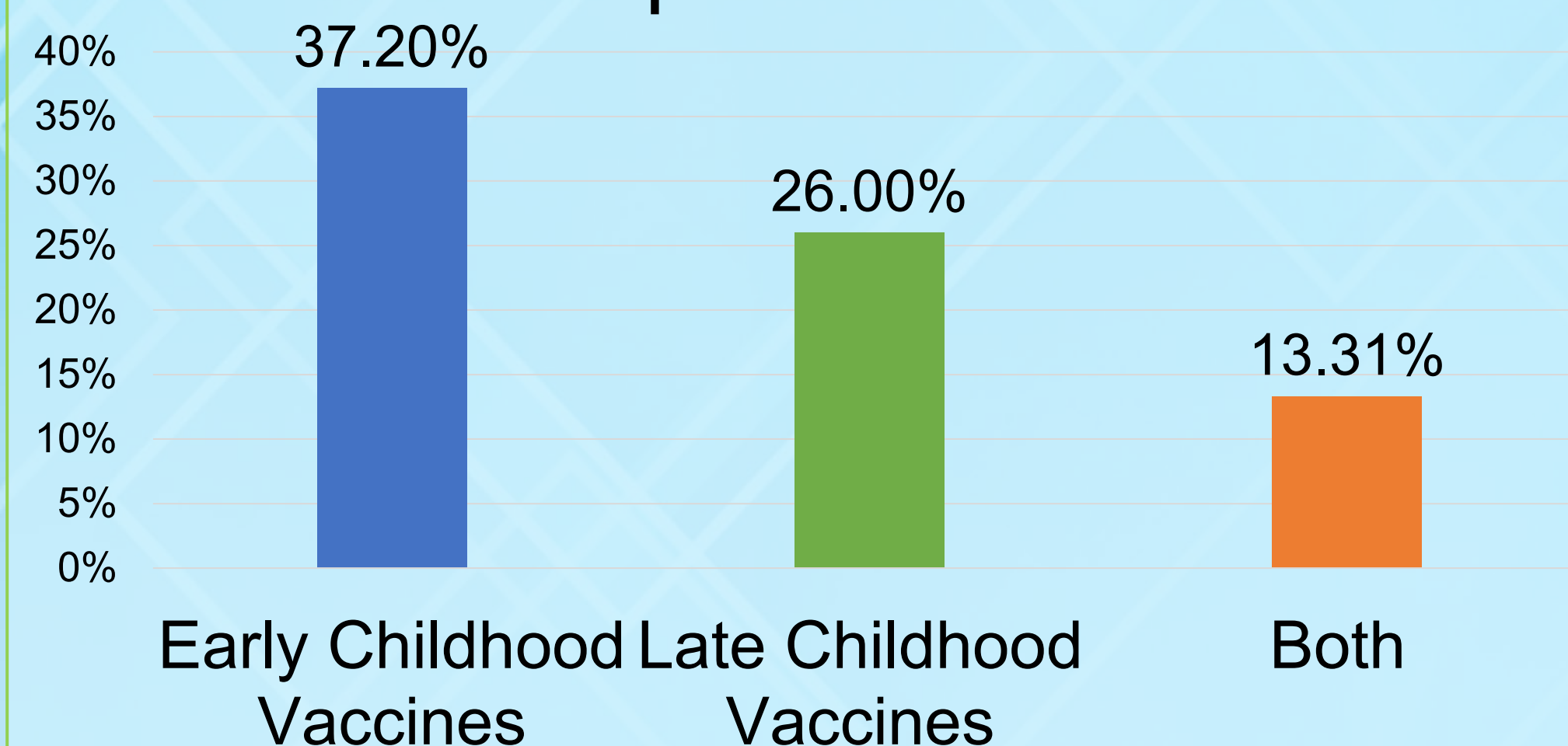


Figure 2: Specific Late Childhood Vaccine Completion Rates (n=293)

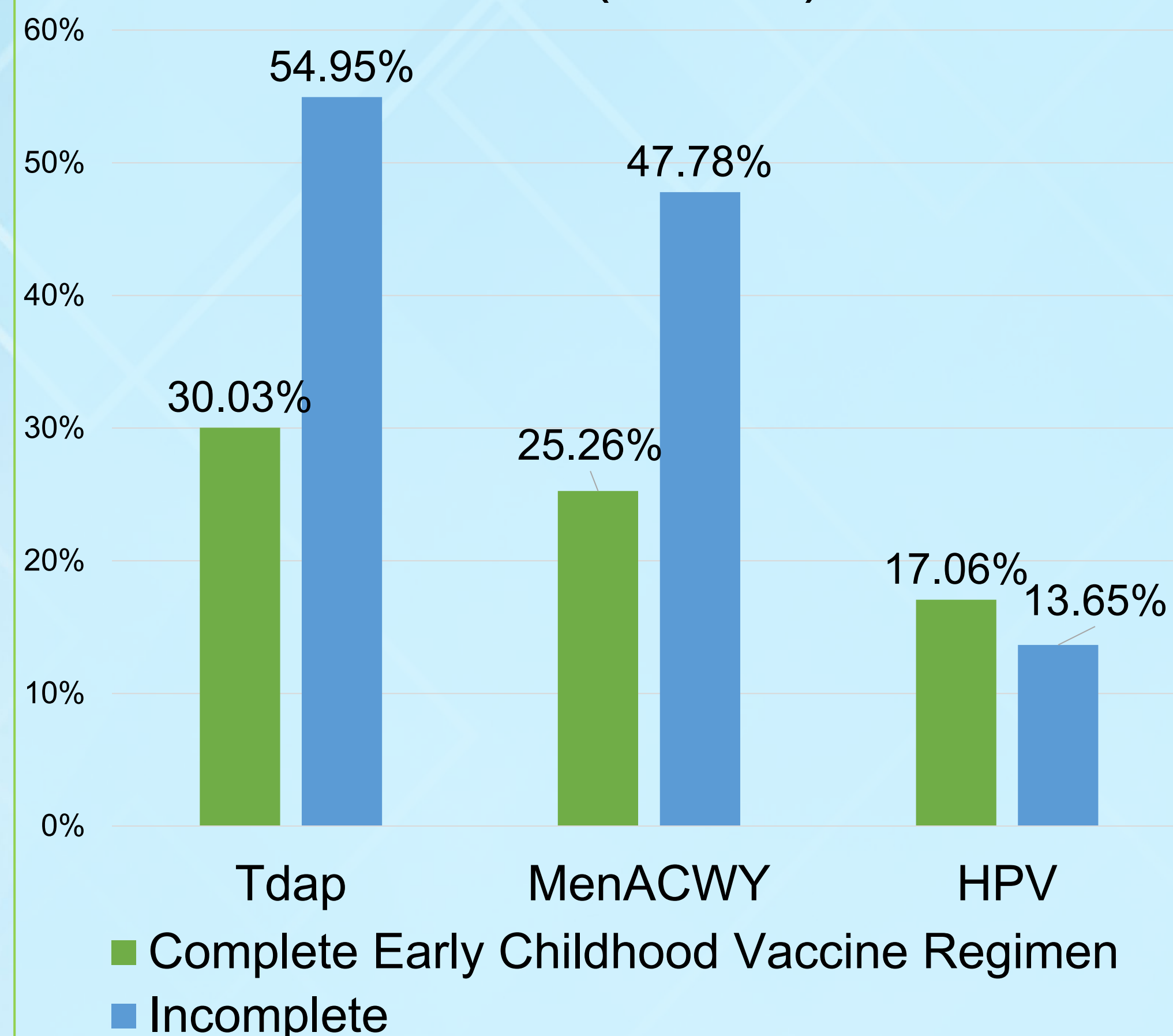
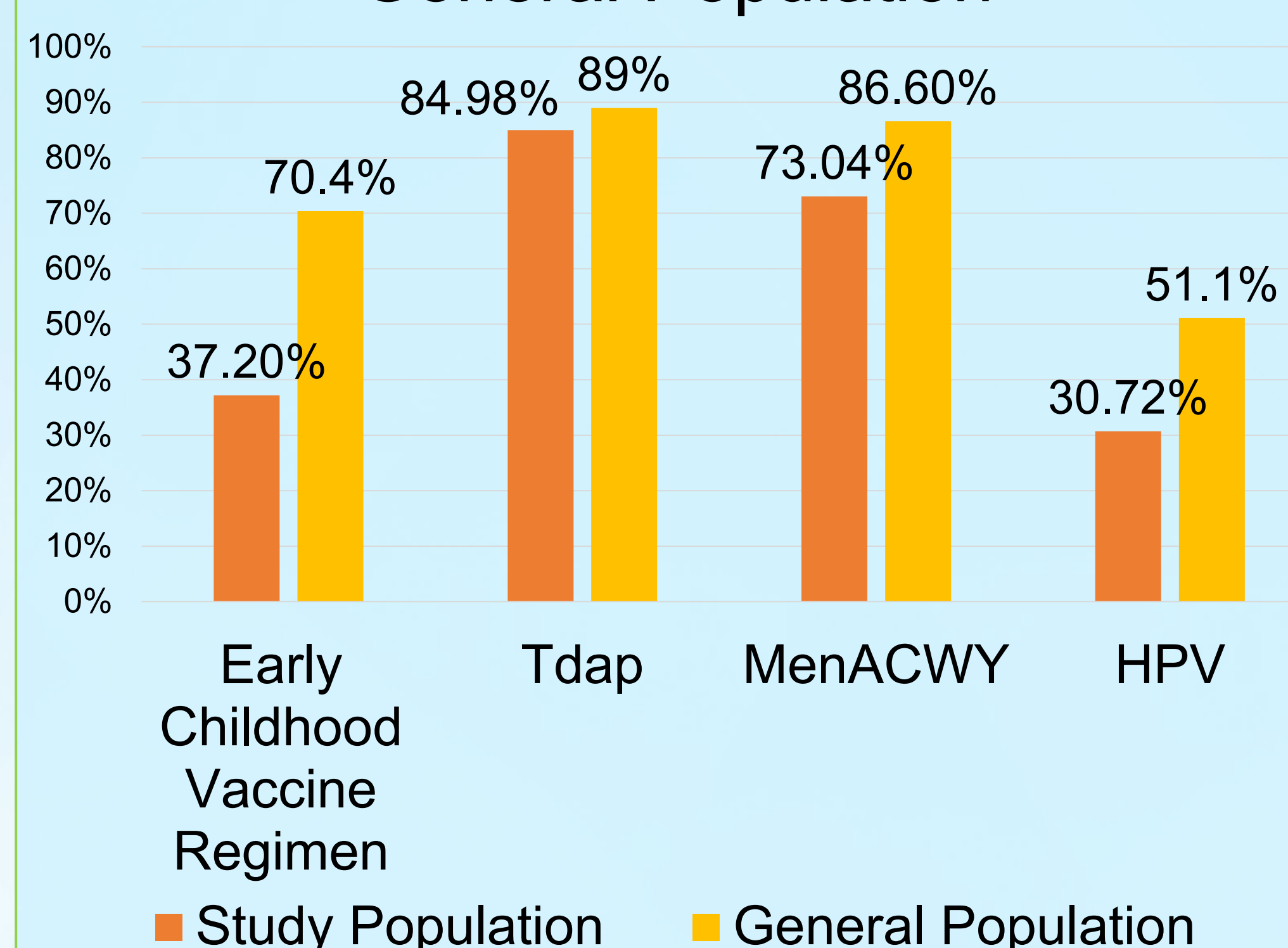


Figure 3: Vaccine Completion Rates in Study Population vs General Population



## Discussion

- In Values-Based Patient Centered Care, this project highlights the health disparities faced by this population in their undervaccination
- In Health Systems, undervaccination can lead to increased costs, decreased quality of health, and suggests a lack of access to care that would provide recommended immunizations
- The decrease in late childhood vaccine completion in comparison to early childhood vaccine completion may be due to decreasing access to care over time or mirror the general population
- PA does not require Hib or HPV for school attendance, which may contribute to low early childhood vaccine completion rate and the discrepancy between HPV and Tdap/MenACWY

## Conclusions

- Adolescents in this emergency housing shelter lack CDC recommended vaccinations and are undervaccinated in comparison to peers
- Lack of vaccination further heightens increased risk for infectious disease, indicating a need for further vaccination in this vulnerable population

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