

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

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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

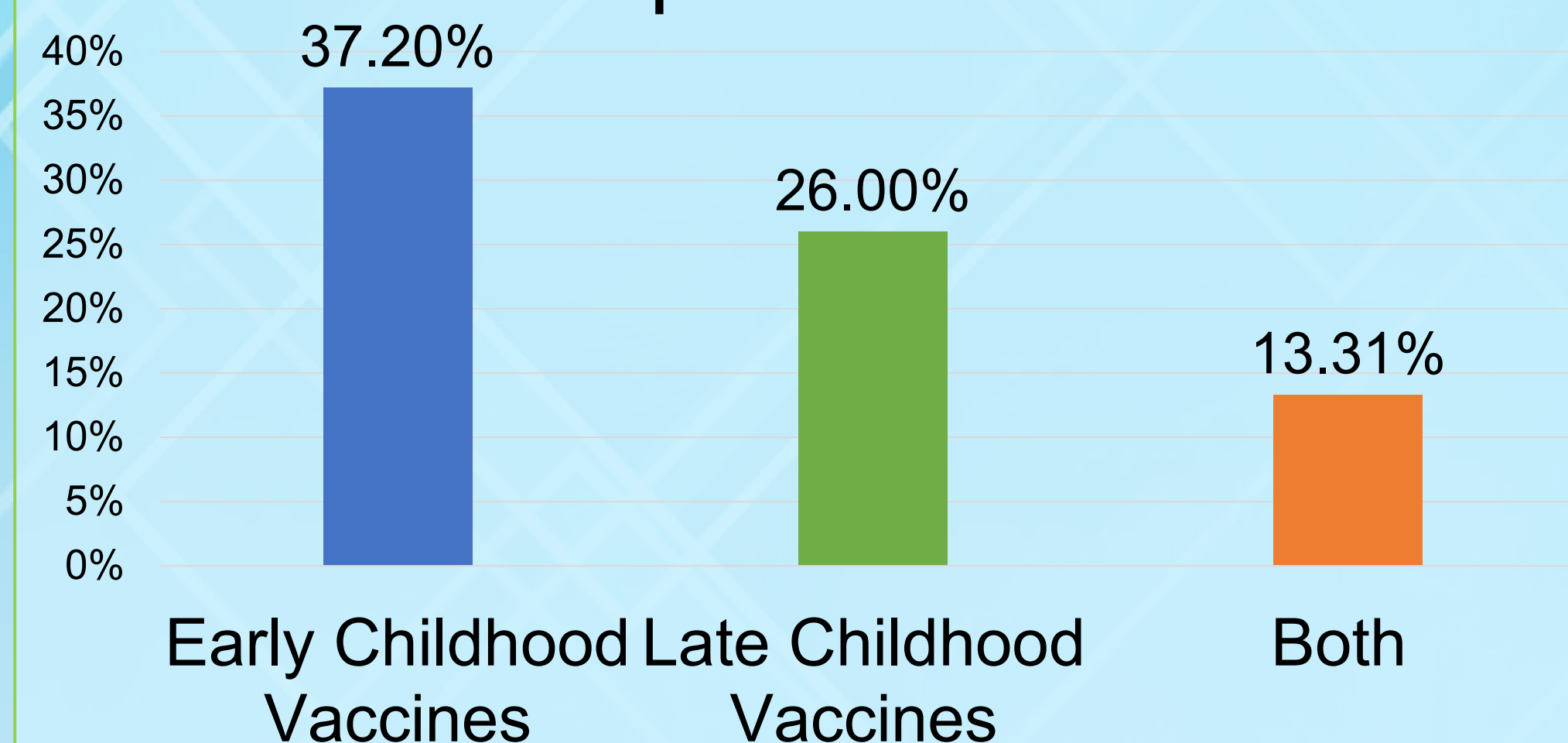


Figure 2: Specific Late Childhood Vaccine Completion Rates (n=293)

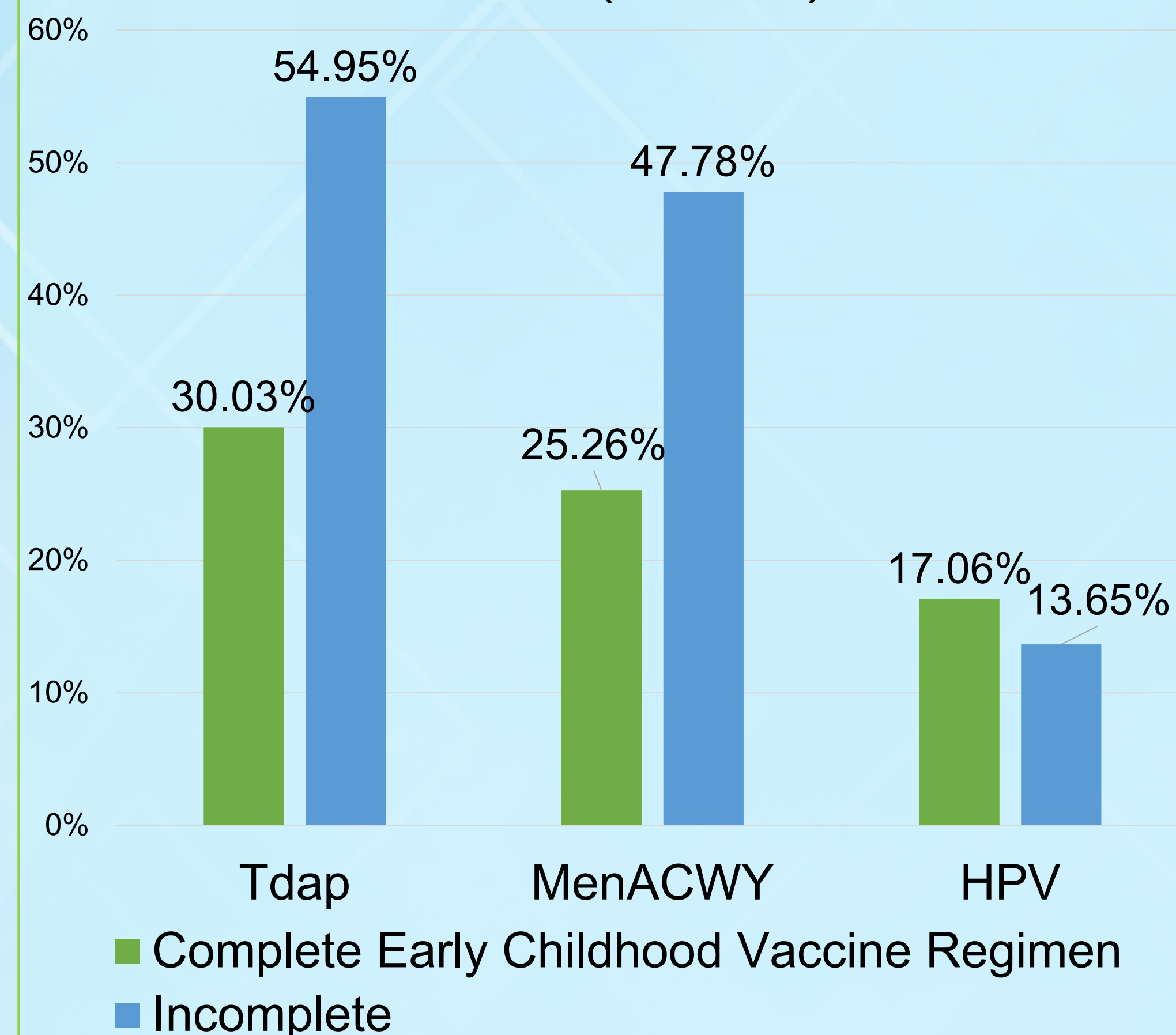
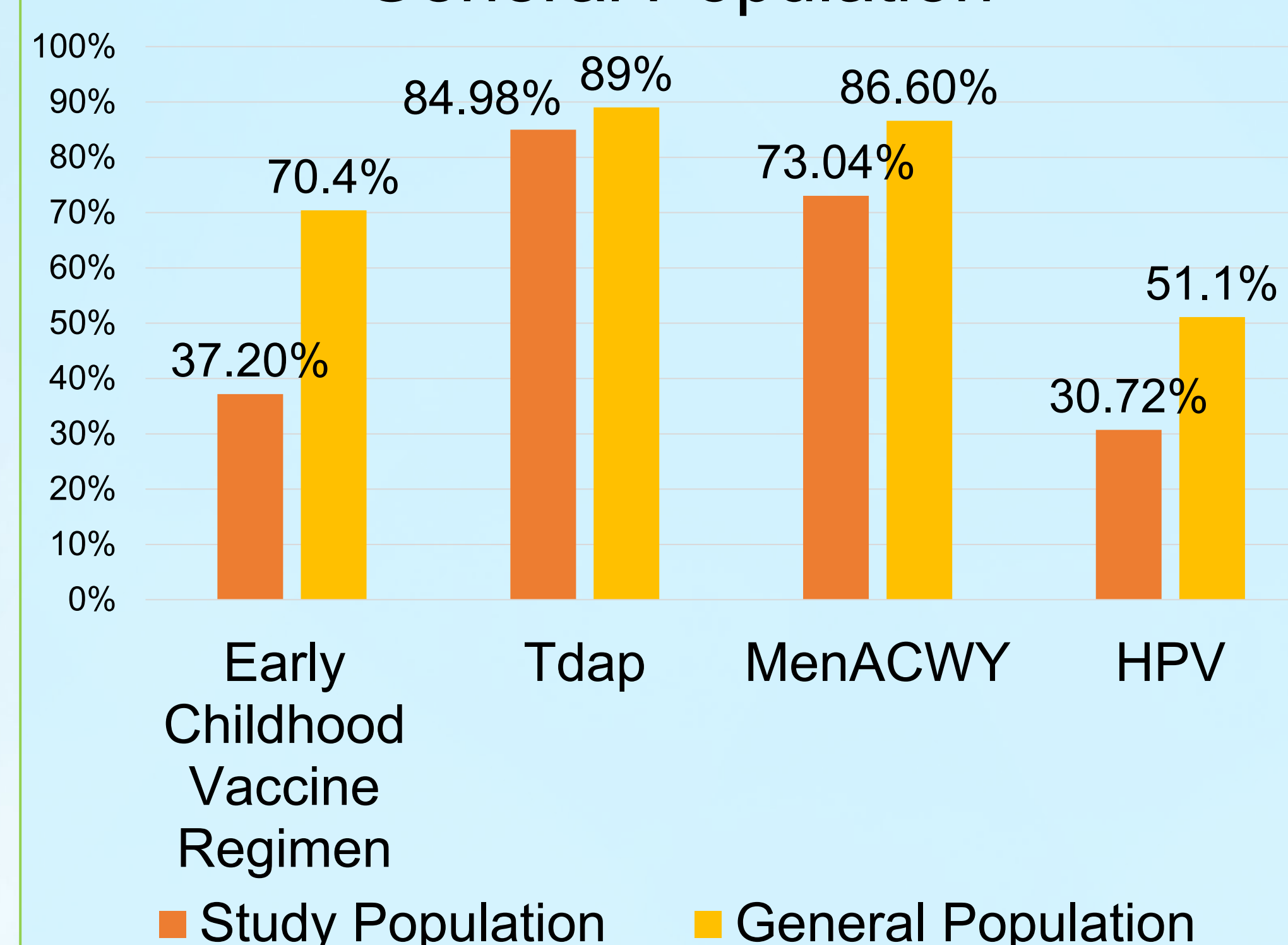


Figure 3: Vaccine Completion Rates in Study Population vs General Population



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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