

Sociodemographic Predictors of Adolescent Vaccine Completion in Louisiana

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Background

- Vaccination is a critical public health measure to protect adolescents from vaccine-preventable diseases.
- These vaccines include **HPV, Tdap and MenACWY (or MCV4)**.
- Adolescent vaccination rates generally lag behind childhood vaccination rates in Louisiana.
- However, **predictors of on time adolescent vaccine completion are currently unknown**, limiting the ability to focus targeted interventions.

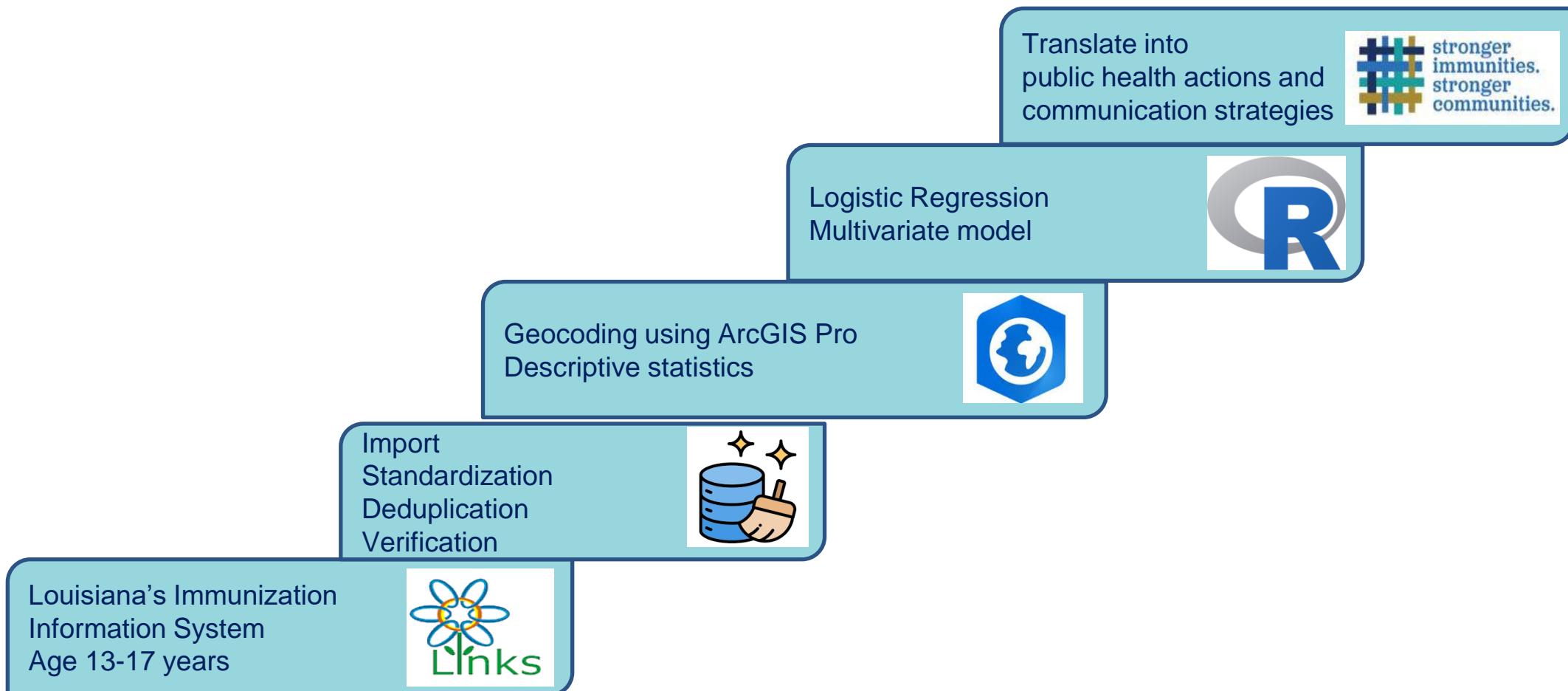
Essential Immunization Between Ages 11-18

- **HPV:** Protects against human papillomavirus, a leading cause of cervical, anal and throat cancers. Recommended age 11-12.
- **Tdap:** Boosts protection against tetanus, diphtheria, and pertussis. Given once at age 11-12.
- **Meningococcal:** Guards against meningitis and bloodstream infections. Two doses, one at 11-12 and a booster at 16.

Objective

Identify sociodemographic predictors at the individual and tract levels that predict completion of HPV, MenACWY and Tdap vaccines among adolescents 13-17 years of age in Louisiana

Methods



Predictors of HPV series completion

Variables	Reference	Level	Adj. OR	95% CI	P-Value
↑ Female	Male	Individual	1.108	1.081-1.136	<0.0001
↑ Black	White	Individual	1.102	1.070-1.136	<0.0001
↑ Urban	Rural	Individual	1.159	1.129-1.189	<0.0001
↑ % Population Unemployed	Below Median	Census Tract	1.055	1.026-1.085	0.0001
↑ % Single-Parent Household	Below Median	Census Tract	1.036	1.020-1.053	<0.0001

Predictors of MenACWY completion

Variables	Reference	Level	Adj. OR	95% CI	P-Value
↑ Female	Male	Individual	1.084	1.063 -1.106	<0.0001
↓ Non-Hispanic	Hispanic	Individual	0.896	0.863-0.931	<0.0001
↓ Black	White	Individual	0.970	0.947-0.994	0.015
↑ % Population Unemployed	Below Median	Census Tract	1.033	1.011-1.057	0.0032
↓ % Low-income population	Below Median	Census Tract	0.996	0.995-0.997	<0.0001

Predictors of Tdap completion

Variables	Reference	Level	Adj. OR	95% CI	P-Value
Black	White	Individual	0.971	0.961-0.981	<0.0001
Non-Hispanic	Hispanic	Individual	1.033	1.017-1.050	<0.0001
% Population with Disability	Below Median	Census Tract	1.004	1.000-1.008	0.019
% Low-income population	Below Median	Census Tract	1.001	1.000-1.001	<0.0001

Conclusions

- Social determinants of health, both at the individual and population levels, are significant predictors of adolescent vaccine completion.
- This information helps Immunization Programs devise strategies and interventions that are socially and culturally appropriate to promote on-time vaccination among at-risk adolescents.

THANK YOU

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