

Assessing Adult Vaccine Uptake and Associated Factors in Sierra Leone: A Cross-Sectional Study

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Introduction

- Adult vaccination is underprioritized in many low-and middle-income countries
- Most immunization programs focus on children and pregnant women.
- Limited access to vaccines for adults outside of outbreak periods.
- Sierra Leone
 - Adult immunization in Sierra Leone has been historically limited
 - Highest Ebola burden in 2014-2016 (over 14,000 cases, about 4,000 deaths)
 - Severely strained health system (loss of 7% workforce)
 - First COVID-19 vaccine in 2021
 - Sierra Leone case study sheds light on adult vaccination decisions in low-resource, emergency-prone settings.

Study Aim

To investigate adult vaccine uptake in Sierra Leone

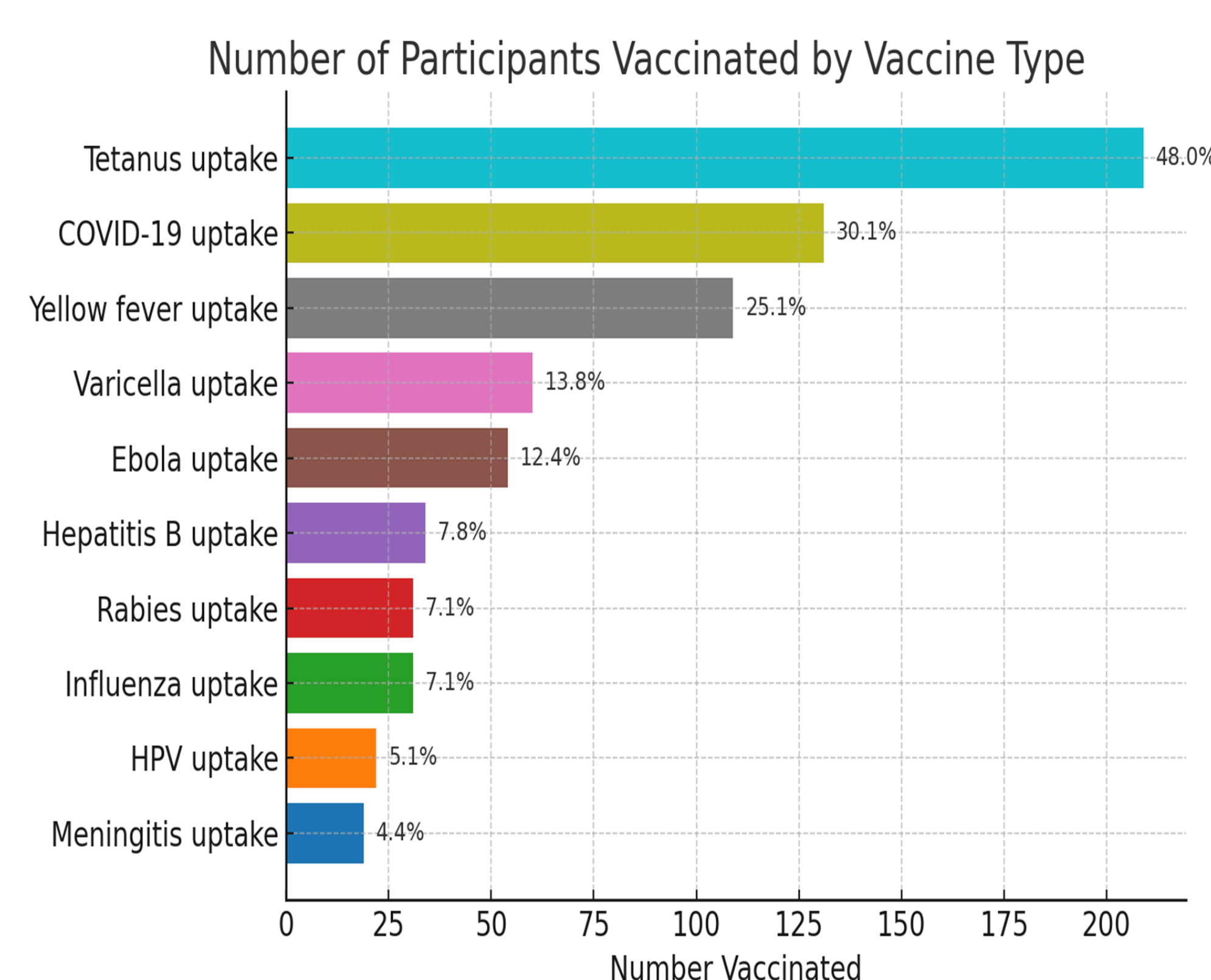
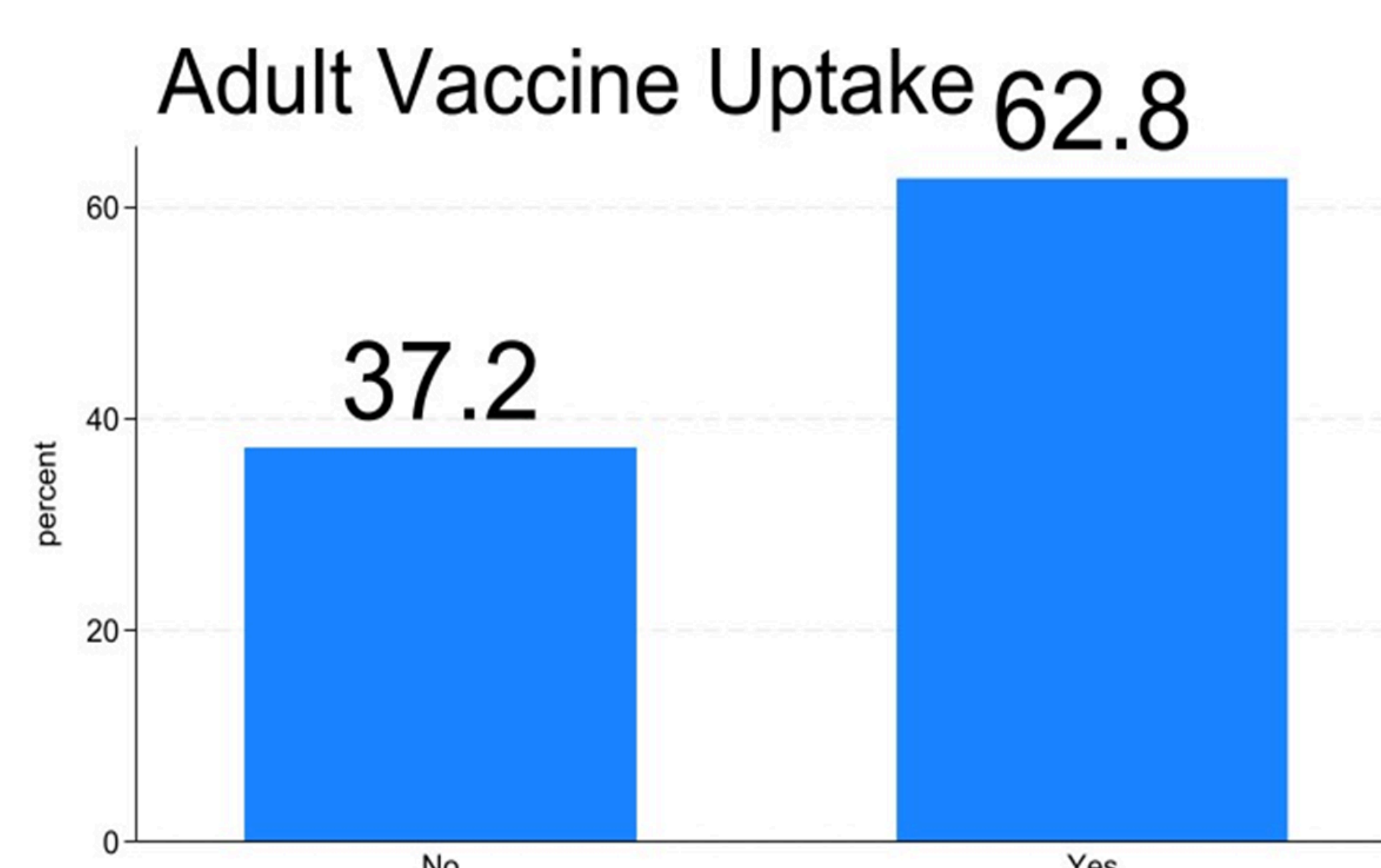
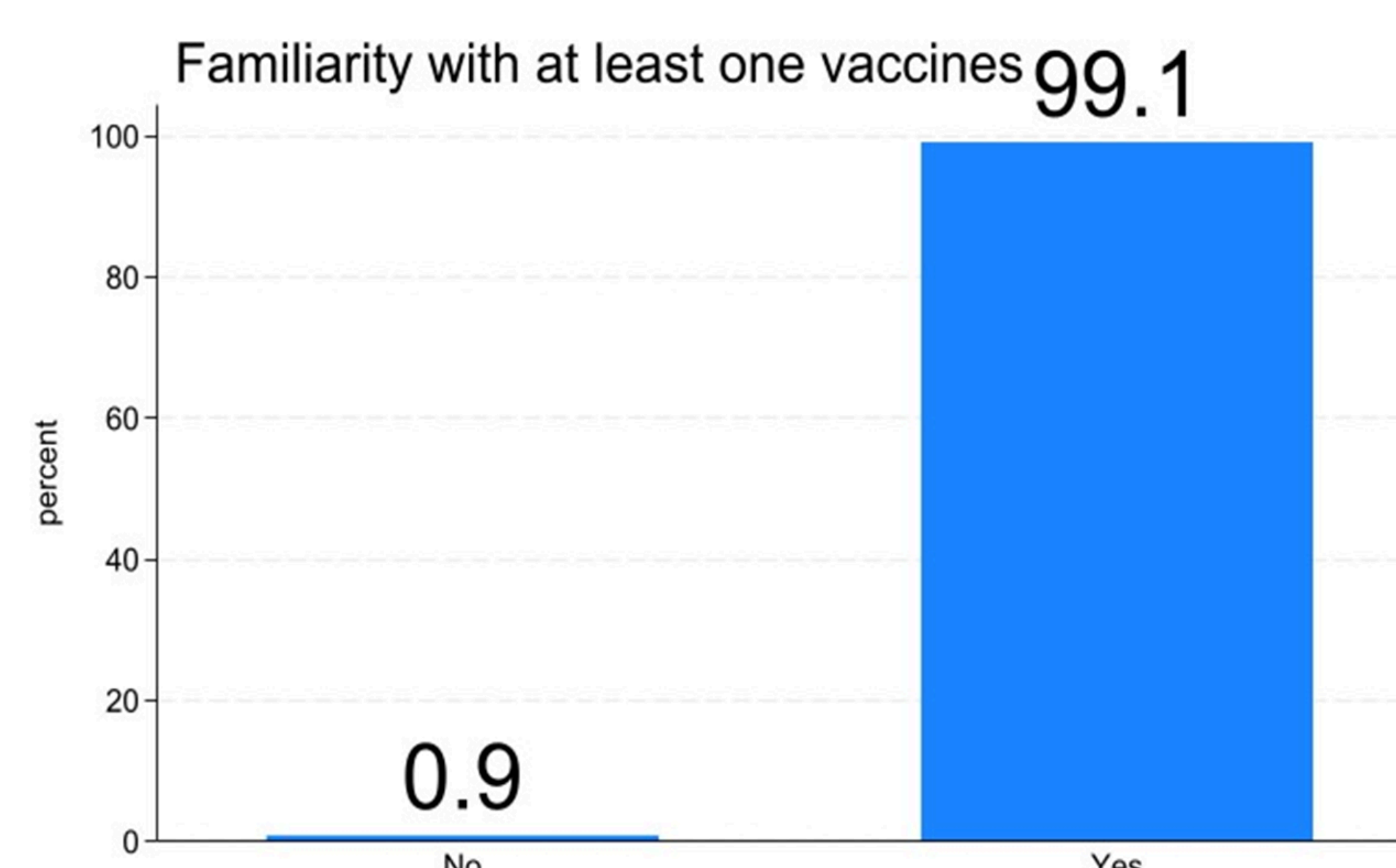
Methods

- **Setting:** Sierra Leone, urban and rural communities (Freetown, Makeni)
- **Population:** Adults 18+ years (petty traders, pregnant women, and college students)
- **Recruitment:** Petty traders (trading sites), pregnant women (antenatal clinics), and college students (social media)
- **Sample:** 435 participants
- **Study design:** Quantitative cross-sectional design
- **Data:** Demographics, Ebola and COVID-19 outbreak experience, familiarity with adult vaccination, and uptake of adult vaccines
- **Statistical analysis:** Descriptive, Chi-square test and logistic regression
- **Ethical considerations:** UM IRB, SL Ethics Committee

Impact

- The results will lead to effective and culturally informed vaccination campaigns in low-resource settings, increasing vaccine uptake and reducing the impact of infectious disease outbreaks
- The study will support a healthier community, a better quality of life, and improve public health emergency preparedness

Results



Partners

- Global Collaborators – Local Stakeholders in Sierra Leone
- Other Co-PIs - Dr. Matthew Boulton
- Funders – Office of Global Public Health (OGPH), University of Michigan

Participants' characteristics associated with adult vaccine uptake

- **N = 453, Male (n = 118), Female (n = 317)**
- Overall vaccine uptake: 62.8%
- Pregnant women: Uptake (97.2%)
- Small household Uptake (85%)
- College students: Uptake (85.3%)
- College-educated: Uptake 85.3%
- 18-34years: Uptake (76%)
- Male: Uptake (72.9%)
- Female: Uptake (59%)
- Petty traders: Uptake (13.7%)
- 55+ years: Uptake (8.7%)

Research Experience

Project Activities

- Managed and clean data for analysis
- Conducted statistical analysis in Stata
- Coded qualitative interview data using Atlas.ti software

Lesson Learned

- Gained hands-on experience in managing and analyzing secondary data.
- Learned coding and performing multivariate analysis in Stata
- Developed qualitative coding and analysis skills using Atlas.ti
- Recognized the value of mixed method research informing public health intervention
- Improved ability in key drivers of health seeking behaviors in low-resources settings

Map of Sierra Leone

