

# Acceptability and Feasibility of Screening for Hepatitis B using Dried-blood spots in a Free Community Health Fair Setting

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## Introduction

- Chronic hepatitis B virus (HBV) infection remains a major global health problem<sup>1,2</sup>. In 2019, Florida had one of the highest acute HBV infection rates (2.1/100,000 population)<sup>3</sup> in the USA. All persons from countries having HBV rates of  $\geq 2\%$  should be screened<sup>4</sup>; however, barriers to seeking and accessing screening services are common in immigrant populations<sup>5</sup>.
- The University of Miami's student-run Mitchell Wolfson Sr Department of Community Service (DOCS) is a non-profit organization that provides health screening based on USPSTF guidelines for underserved neighborhoods in South Florida.
- While DOCS fairs currently provide point-of-care fingerstick screening for HIV and HCV, we have not previously administered HBV screening. However, with the development of FDA-approved fingerstick Dried Blood Spot (DBS) testing for HBV, the burden associated with testing has significantly decreased.
- Our aim was to assess the feasibility of screening at-risk patients at these health fairs, as well as factors that may influence patients' acceptability of receiving such testing.

## Methods

### Patient Recruitment

- All patients (age >18 years) who attended the DOCS West Kendall Health Fair on December 11<sup>th</sup>, 2021 or the Allapattah Health Fair on April 16<sup>th</sup>, 2022 were invited to participate in the study to assess HBV screening acceptability.
- Patients were administered a questionnaire regarding their acceptability of HBV fingerstick testing. If patients agreed, they also received HBV testing.

### HBV screening test administration

- Patients' blood was placed on DBS cards for HBV screening.
- Cards were shipped to Molecular Testing Labs (Vancouver, WA).
- Samples were processed for HBV surface antigen (sAg).
- Results were returned to DOCS student staff.

### Processing of results

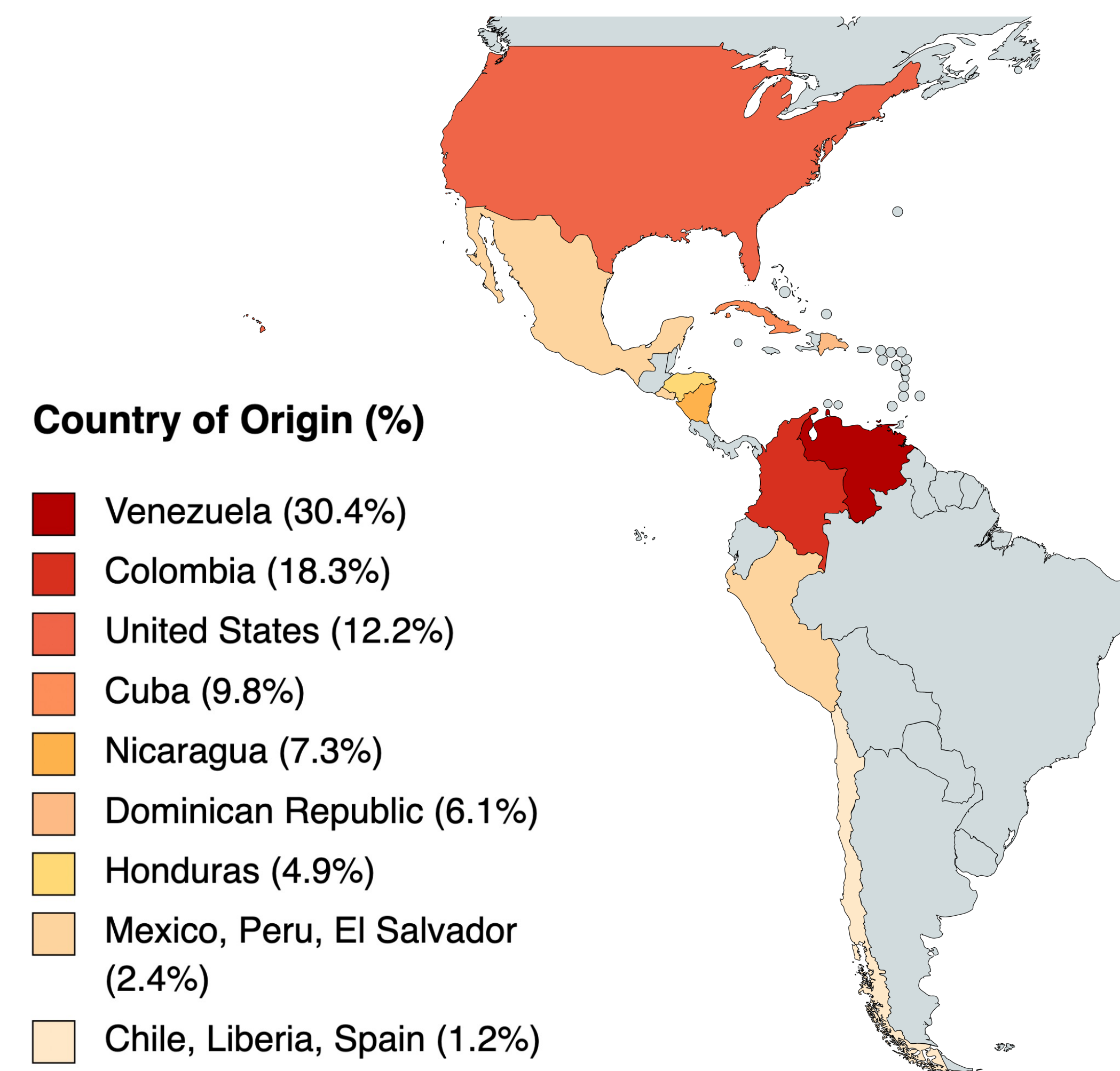
- Patients without evidence of current/prior infection received a follow up letter via mail recommending vaccination for HBV.
- Patients with positive HBV sAg test were contacted by DOCS student Patient Navigators via phone call and were informed of results and provided linkage to follow-up testing and care.

## Questionnaire Results

Table 1: Demographics of patients seen at the community health fairs.

Demographics	
Median age (years)	49.5
Female Sex (%)	50
Race/Ethnicity (%)	
Black (African American)	2.4
Black (Hispanic)	4.9
White (Hispanic)	85.4
White (Non-Hispanic)	3.7
Prefer not to answer	3.7
Primary Language Preferences (%)	
Spanish	78
English	22
Country of Origin: (%)	
United States	12.2
Other (see breakdown below)	87.8
Insurance Type (%)	
Uninsured	58.5
Private	28
Medicare/Medicaid	6.1
Other/Don't Know/Refused	7.3

Figure 1: The geographic distribution of the countries of origin of patients seen at the community health fairs.



## Results

Figure 2A: Results of patients responding "Yes" when asked if the HBV DBS screening test made them feel uncomfortable. Patients were asked for follow-up reasons why the test made them feel uncomfortable.

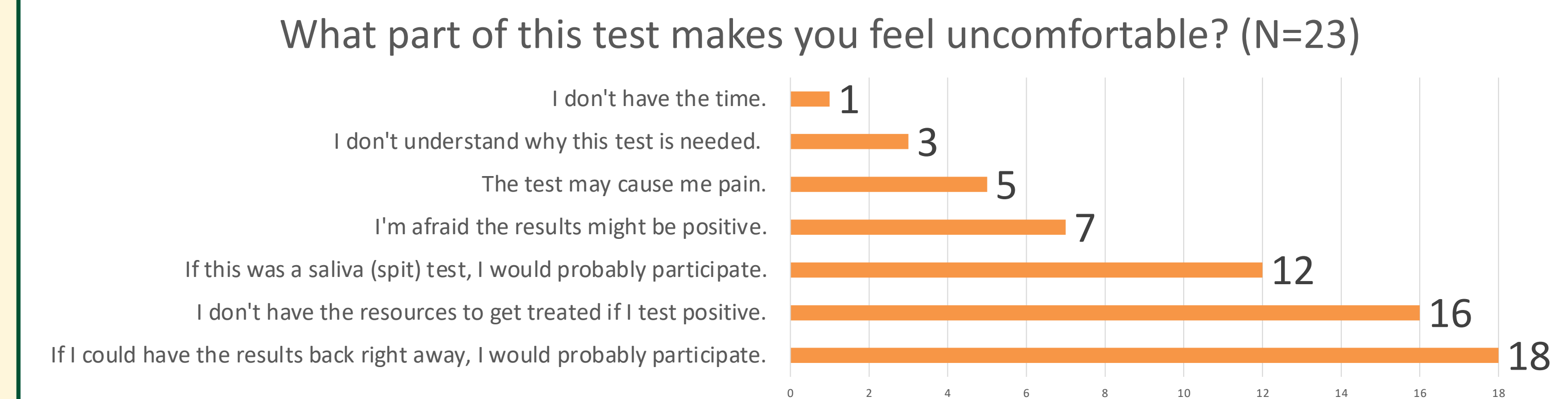
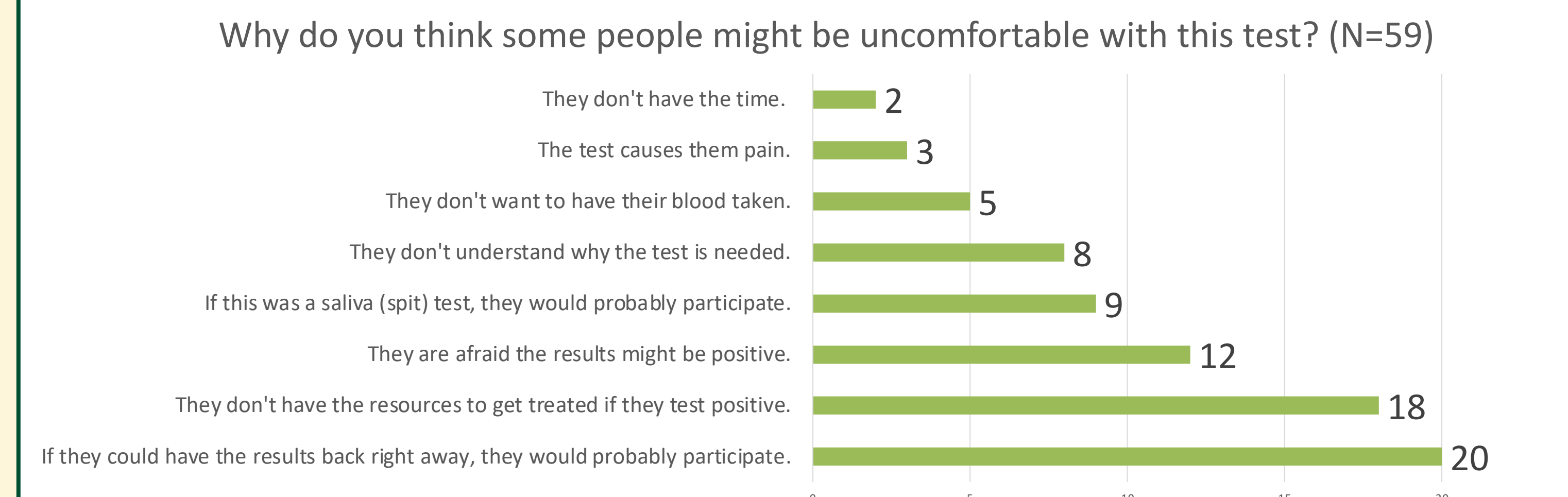
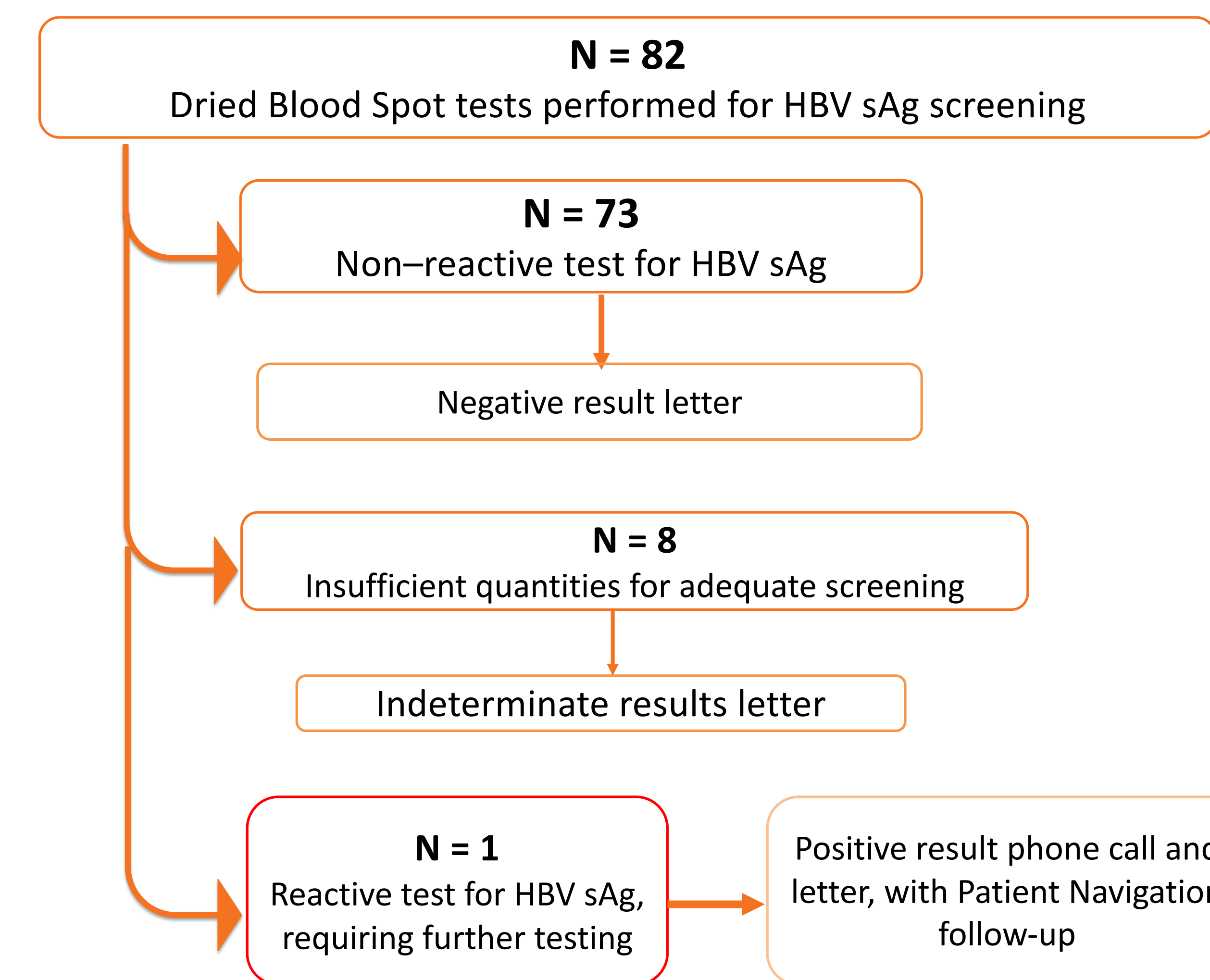


Figure 2B: Results of patients responding "No" when asked if the HBV DBS screening test made them feel uncomfortable. Patients were asked for follow-up reasons why the test might make others feel uncomfortable.



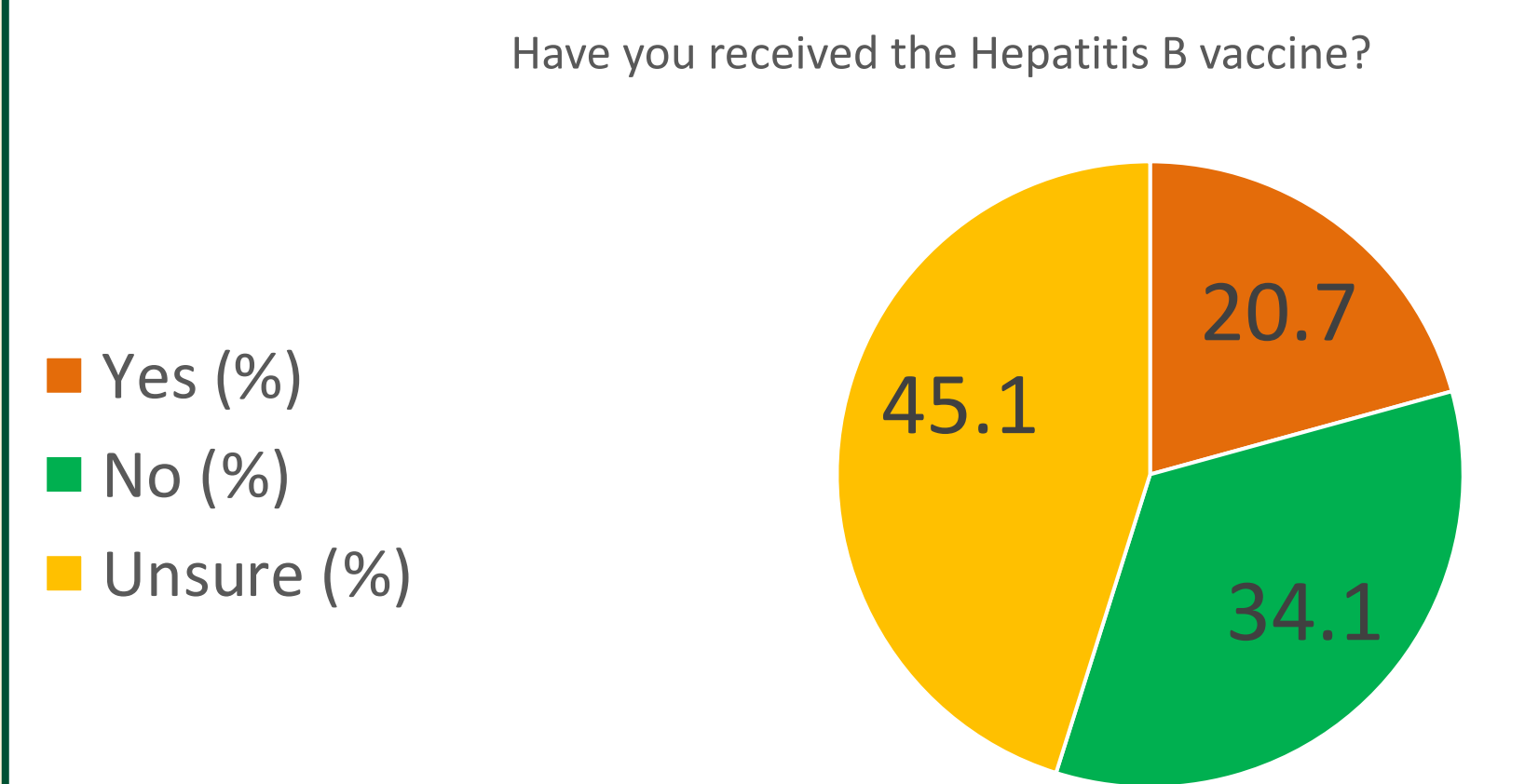
## Processing of Test Results

Figure 3: Results of HBV screening and follow up navigation.



## Results (continued)

Figure 4: Patients were asked their status of HBV immunization.



## Conclusion

### Patient Acceptability

- In a community health fair setting, DBS sampling for HBV was acceptable among most participants receiving similar screenings.
- Notable barriers include long turnaround time required for DBS testing and lack of access for resources if patients test positive.
- Patients also indicated preference for saliva-based testing if possible.

### Feasibility of screening in free community fairs

- Findings of insufficient quantities for adequate screening indicate that appropriate lancets should be used for this DBS screening.
- Quality improvement training should be implemented for volunteers to obtain an adequate sample.
- Future endeavors include replication at future health fairs with different patient demographics and a cost-benefit analysis of the implementation of routine screening for HBV amongst vulnerable patients.

## References

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