



**INTEGRATING IMMIGRANT  
POPULATIONS WITH HEPATITIS  
B INTO LONG-TERM CARE:  
INSIGHTS FROM THE BRONX  
WEST AFRICAN COMMUNITY**

DATE: SEPT 25, 2024

---

# PARTICIPATING IN THE WEBINAR



**Audio** – Attendees on mute



**Chat** – Hello! Feel free to drop a chat and respond to open-ended poll questions

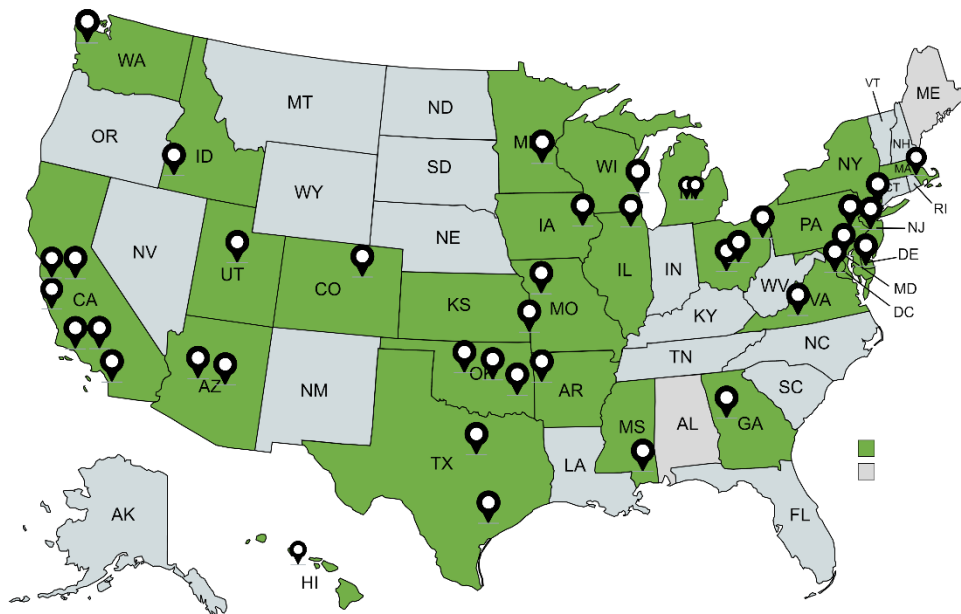


**Questions?** Please type questions in the Q&A window

*\*The session is being recorded. We will also share slide presentations.*

# HEP B UNITED: A NATIONAL COALITION

## Hep B United



Hep B United Partners in  
27 states, DC and 37 cities.

54 National and Local  
Coalition Members

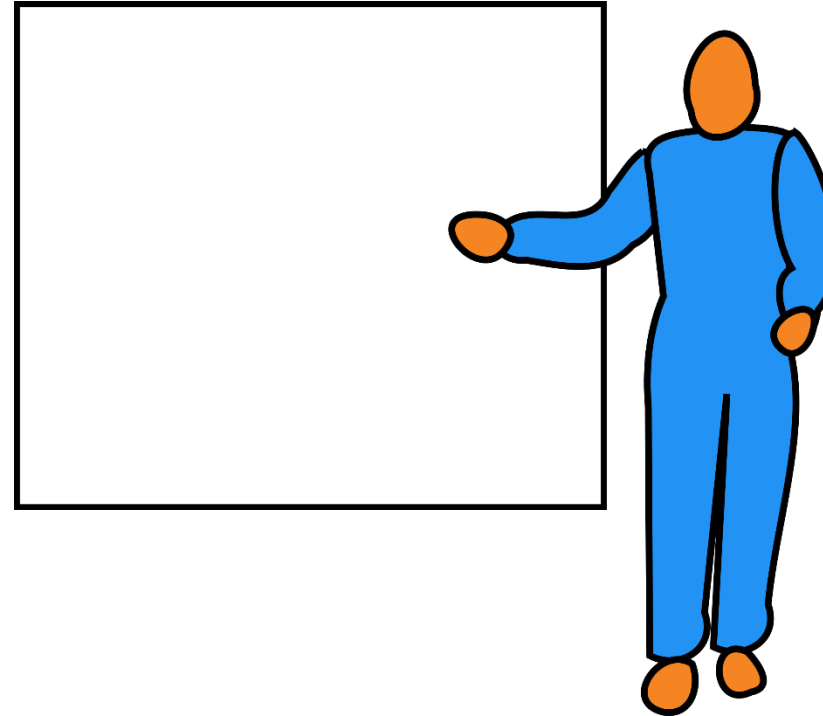
- 60+ local coalitions & national organizations in 36 cities and 26 states, and D.C.
- **Mission** - Hep B United is a national coalition dedicated to reducing the health disparities associated with hepatitis B by increasing awareness, screening, vaccination, and linkage to care for high-risk communities across the United States.

---

- **FATIMA OMARUFILO**  
**PATIENT NAVIGATOR**  
**MONTEFIORE STARFISH PROGRAM**

- **DANIEL GUTTMAN**  
**MEDICAL STUDENT**

- **JULIE NGUYEN**  
**MEDICAL STUDENT**



**SPEAKERS**



## **Screening for HBV in the Bronx West African Community with a Blood Pressure cuff**


Fatima Omarufilo, MPH

Emmanuel Emeasoba, MD

Mugdha Parulekar, Medical Student

Daniel Guttman, Medical Student

Julie Nguyen, Medical Student



# Growth of the West African Population in the Bronx

- The Bronx WA population has grown dramatically in recent years.
- Between 2007 and 2014 the population increased by more than 60%. In fact, 46,300 people of WA origin immigrated between 2015 and 2019.



# Hepatitis B in West Africa

- Chronic Hepatitis B is endemic in all WA countries with estimated prevalence in 2022 ranging from 2.3% to 12.3%.
- Infection with hepatitis B virus (HBV) is the main cause of cirrhosis and hepatocellular carcinoma and the greatest cause of cancer-related death in WA men.
- Barriers to care include lack of knowledge, poverty, and inadequate health infrastructures.
- Screening for HBV is low, and it is estimated that less than 1% of CHB cases have been diagnosed.
- Stigmatized as a sexually transmitted infection.



# Hepatitis B in West Africa

- Interview-based studies show that signs and symptoms of liver disease were attributed to occult forces.
- Those with CHB are often avoided and ostracized due to misinformation about transmission.
- It is believed that CHB inevitably causes death and affects those who have been cursed or punished for wrongdoings.
- Associated with promiscuity.





# Hypertension in West Africa

- HTN, once an uncommon problem in WA, has risen to become a major public health concern due to increasing urbanization and resultant epidemiological shift.
- Its prevalence ranges from 28.9% to 48% in WA, and it is a main determinant of cardiovascular disease
- HTN is the fifth leading cause of death in Western Sub-Saharan Africa.



## Hypertension in West Africa

- A meta-analysis concerning its prevalence in Benin, Ghana, and Nigeria reported that awareness of HTN status was less than 30%.
- In contrast to HBV, HTN is attributed to weight gain, poor diet, inactivity, and stress.
- Participants of an interview-based study from Ghana reported an absence of social stigma involving HTN.



# Hypertension among West African immigrants

- As immigrants **acculturate**, they also acquire the risk factors of their new communities.
- In a survey of WA immigrants in Baltimore, there was a statistically significant **positive correlation between length of stay in the United States and prevalence of HTN**.
- Immigrants overall are **less likely to access and utilize healthcare resources** than the native-born population, a discrepancy attributable to many factors including lack of familiarity with the health system, legal status, and lower rates of health insurance.



# The Montefiore Starfish Program

- **Main aim:** screen for HBV in the Bronx West African community through an educational outreach program
- It started with a simple questionnaire designed to assess barriers to screening.
- The program collaborated with local faith-based organizations to facilitate this mission.
- An educational program was developed with the plan to administer the questionnaire prior to events organized.



# West African Personnel

- Based on enthusiasm from the educational programs, funds were generated for HBV screening.
- A West African navigator was hired, and an outreach program was initiated after receiving grants from New York City Council.
- This was designated to promote compliance of HBV patients with virologic monitoring, hepatocellular carcinoma, surveillance and treatment.
- Now the program includes screening for hypertension and diabetes.



## Identifying gaps in care

- **Vaccination of Non-Immune Individuals**
- **Compliance with Evaluation of Chronically Infected Individuals**
- **High Prevalence of Hypertension (HTN)**
- **Rapid Transition into Ongoing Care**



# Adjustments to gaps in HBV protocol

- **Vaccination of Non-Immune Individuals:**
  - Expansion of the program to include vaccination services to address this gap.
- **Compliance with Evaluation of Chronically Infected Individuals:**
  - The program implemented immediate comprehensive serologic evaluation services with incentive.
- **Remaining gaps:**
  - **High prevalence of hypertension (HTN)**
  - **Rapid transition into ongoing care**



# Screening for HBV in the Bronx West African Community with Blood Pressure cuff

- Hepatitis B (HBV) and hypertension (HTN) are prevalent in West Africa (WA).
- Inadequate HTN control is common, and HBV evaluation and management is challenging among immigrants due to unfamiliarity with the United States (US) healthcare system.
- While HBV is stigmatized, HTN is recognized as an important condition.



Coupling screening for a known, non-stigmatized condition (HTN) can facilitate screening of an unknown, stigmatized condition (HBV) in the Bronx WA community.



# Recruitment and Screening



## Educational presentations

- Thirty-minute HTN educational programs were delivered in collaboration with faith-based organizations, and 5-min presentations were presented upon request at community gatherings.

## Incentive

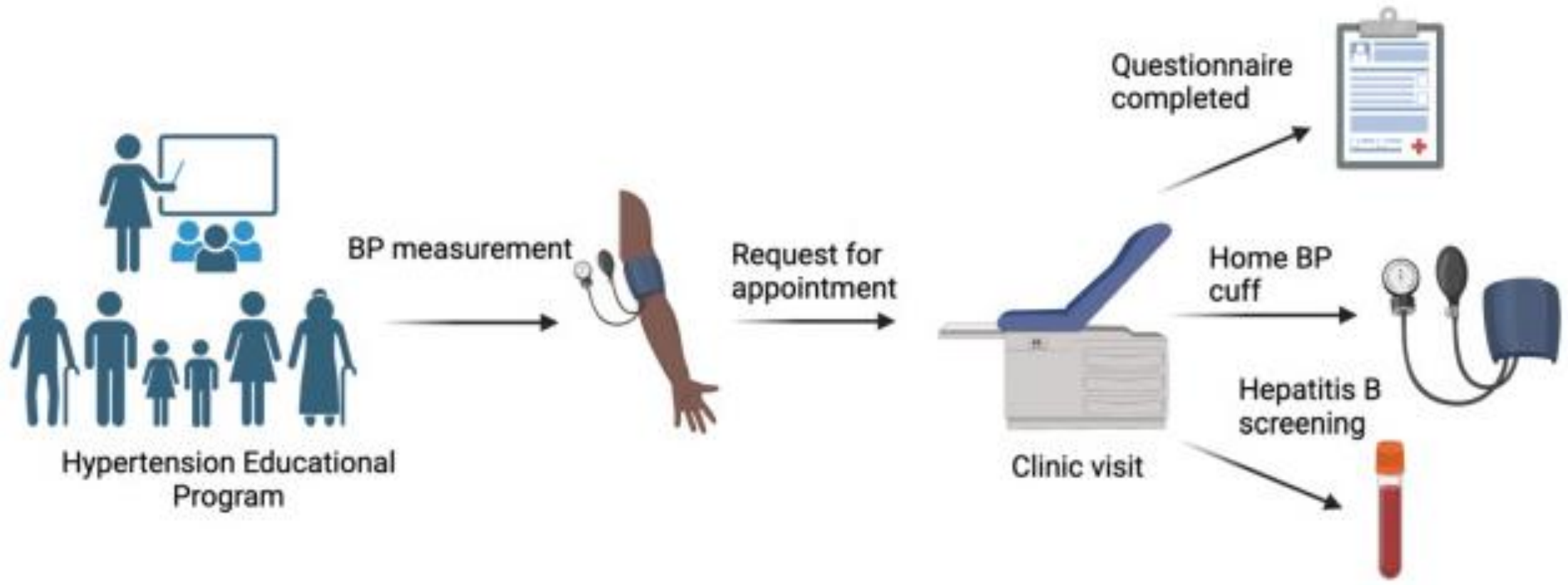
- Arrangements were made for those interested in a clinic visit. Free blood pressure cuffs were used as an incentive for people to come to screening appointments.

## Clinic visit

- At clinic visits, a questionnaire was completed, blood pressure (BP) measured, a free BP cuff provided, HBV testing performed, and referrals made.

## Integration into US healthcare

- For those without ongoing care, insurance was arranged, and linkage to care provided.



**Hypertension Educational Program**

Icon: A group of diverse people (including individuals with walking sticks) and a person presenting at a whiteboard.

BP measurement



Request for appointment



Clinic visit

Questionnaire completed



Home BP cuff



Hepatitis B screening





## Linkage to Care

- Those with uncontrolled HTN (>140/90 mmHg) who had a primary care provider (PCP) were instructed to contact their PCP for follow-up care.
- Individuals with severe HTN (>160/90 mmHg) were either referred to the Emergency Department or the collaborating PCP for a same day appointment as clinically appropriate.
- Those with significantly elevated BP were contacted by telephone on the following days to ensure that the BP was properly controlled.
- Patients who could not be seen on the same day and who needed urgent intervention were given a 30-day supply of amlodipine.



# Linkage to Care

- The Starfish Program assisted patients with HTN without insurance or a PCP in a Medicaid program.
- If eligible, patients were referred to a collaborating WA PCP (KB) for transition to long-term care.



# Presentations

- Between March 2022 and December 2022, seven 30-min educational presentation events were held (4 churches, 3 mosques)
- A total of 445 individuals attended the presentations ( $64 \pm 30$  per presentation) and 144 had their BP measured after the presentation.
- 85 individuals had an elevated level out of the 144 individuals ( $>140/90$  mmHg).
- 204 individuals (204/445, 45.8%) registered for a clinic visit.
- Between February 2022 and February 2023, five 5-min presentations were held, and 80 individuals registered for a clinic visit.



# Clinic visit attendance rates

## ➤ **30-minute Presentation:**

- 68 (33.3%) came for testing out of 204 individuals who registered after attending a 30-minute presentation,
- An additional 18 individuals (4.0%) who did not register contacted the program to schedule a visit.

## ➤ **5-minute Presentation:**

- 51 (63.8%) came for testing out of 80 individuals who registered after attending a 5-minute presentation
- Additionally, 14 individuals who did not register subsequently contacted the program to schedule a visit.

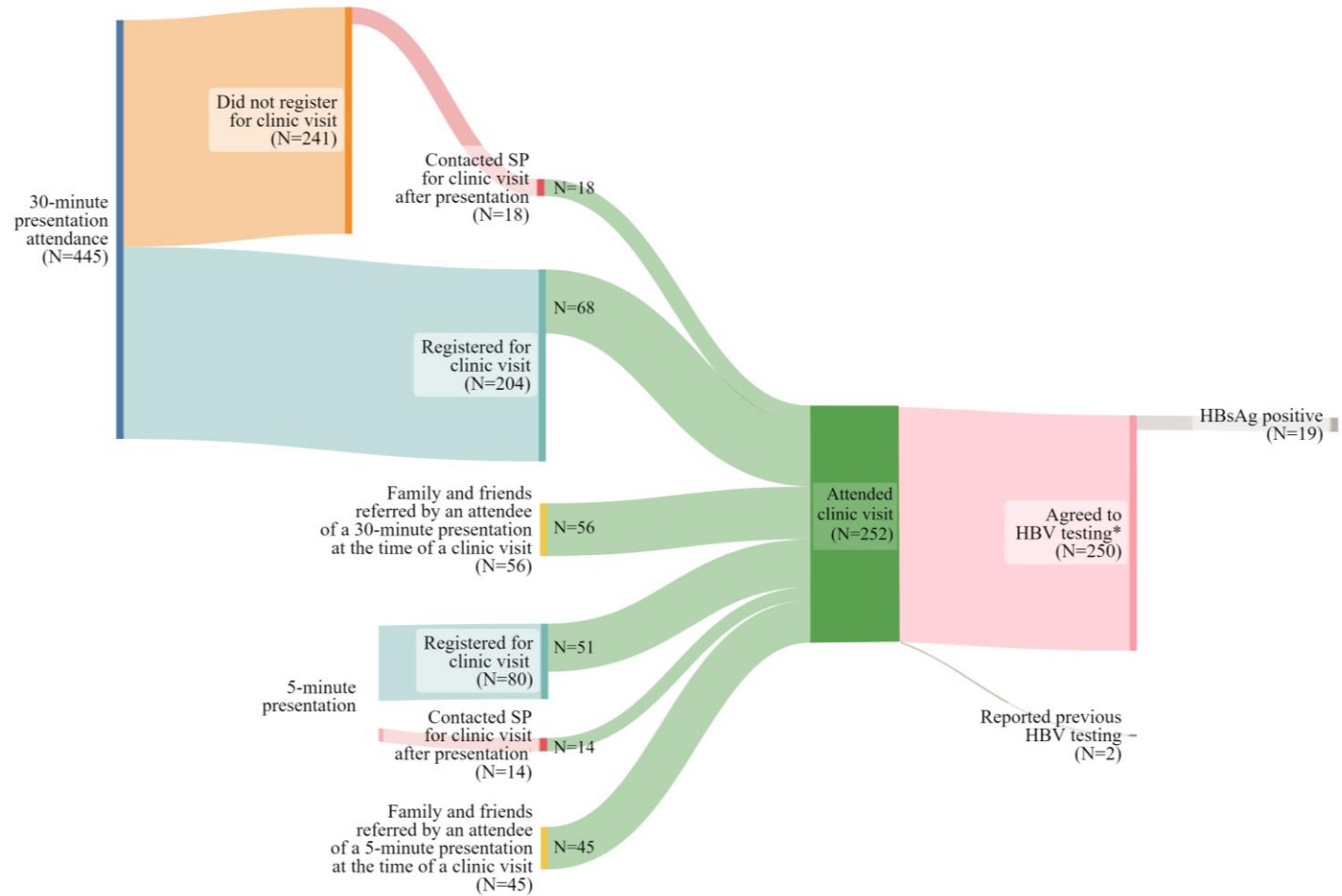
- After comparing the two sets, a significantly greater proportion of individuals who registered after attending a 5-minute presentation (63.8%) showed for a clinic visit to those who registered after attending a 30-minute presentation (33.3%).



## Clinic visit attendance rates and findings

- The difference is 30.5%, and the p-value is less than 0.0001, indicating statistical significance.
- **Short presentations may be more effective** in encouraging individuals to attend clinic visits, as evidenced by the higher proportion of attendees from the 5-minute presentation group compared to the 30-minute presentation group.
- Furthermore, **101 individuals were evaluated after being referred** by someone who attended an event.
- Of these, 56 individuals referred from a 30-minute presentation, and 45 people referred from a 5-minute presentation.

# Flowchart of Presentation Attendance







# Demographics

<b>Number of individuals</b>	252
<b>Age, years, mean (SD)</b>	54.8 (13.0)
<b>Sex</b>	
Female <sup>a</sup>	90 (35.7%)
Male <sup>a</sup>	162 (64.3%)
<b>Country of birth</b>	
Ghana <sup>a</sup>	163 (64.7%)
Nigeria <sup>a</sup>	7 (2.8%)
Other West African country <sup>a</sup>	81 (32.1%)
US <sup>a</sup>	1 (0.4%)
<b>History of hypertension<sup>a</sup></b>	134 (53.2%)
<b>History of diabetes mellitus<sup>a</sup></b>	56 (22.2%)
<b>Insurance<sup>a</sup></b>	190 (75.4%)
<b>PCP visit within previous year<sup>a</sup></b>	190 (75.4%)

<sup>a</sup>Categorical variables reflect numbers with percentages.

**Table 1: Results of the clinic visit questionnaire.**

# Prevalence of HTN or elevated BP

<b>Number of individuals</b>	252
<b>Number of individuals with a history of hypertension<sup>a</sup></b>	134 (53.2%)
Normal blood pressure at time of visit <sup>a</sup>	55 (21.8%)
Elevated blood pressure at time of visit <sup>a</sup>	79 (31.3%)
<b>Number of individuals without a history of hypertension<sup>a</sup></b>	118 (46.8%)
Normal blood pressure at time of visit <sup>a</sup>	75 (29.8%)
Elevated blood pressure at time of visit <sup>a</sup>	43 (17.1%)
<b>Number of individuals with a history of hypertension or an elevated blood pressure without insurance or PCP visit within the previous year<sup>a</sup></b>	60 (23.8%)
<b>Number of individuals with an elevated blood pressure requiring urgent intervention<sup>a</sup></b>	39 (15.5%)
Referred to the ED <sup>a</sup>	4 (1.6%)
Referred for same day evaluation with local WA PCP <sup>a</sup>	19 (7.5%)
Prescribed temporary supply of amlodipine <sup>a</sup>	7 (2.8%)
Contacted PCP for urgent evaluation <sup>a</sup>	9 (3.6%)


<sup>a</sup>Categorical variables reflect numbers with percentages.

**Table 2: Frequency of hypertension and elevated blood pressure.**



# HBV screening

- **All participants** underwent screening for HBV except for two who reported previous testing elsewhere.
- Nine had been previously tested in the SP after a hepatitis B educational program.
- Nineteen (7.6%) individuals were **HBsAg positive**.



## Addressing the remaining gaps

- **High Prevalence of Hypertension (HTN)**
- **Rapid Transition into Ongoing Care**



# Prevalence of hypertension

- **High Prevalence of Hypertension (HTN):**
  - The screening revealed an extremely high prevalence of HTN, including cases that were poorly controlled or previously undiagnosed.
  - The program expanded its mission to include a comprehensive program focusing on HTN to address this issues.



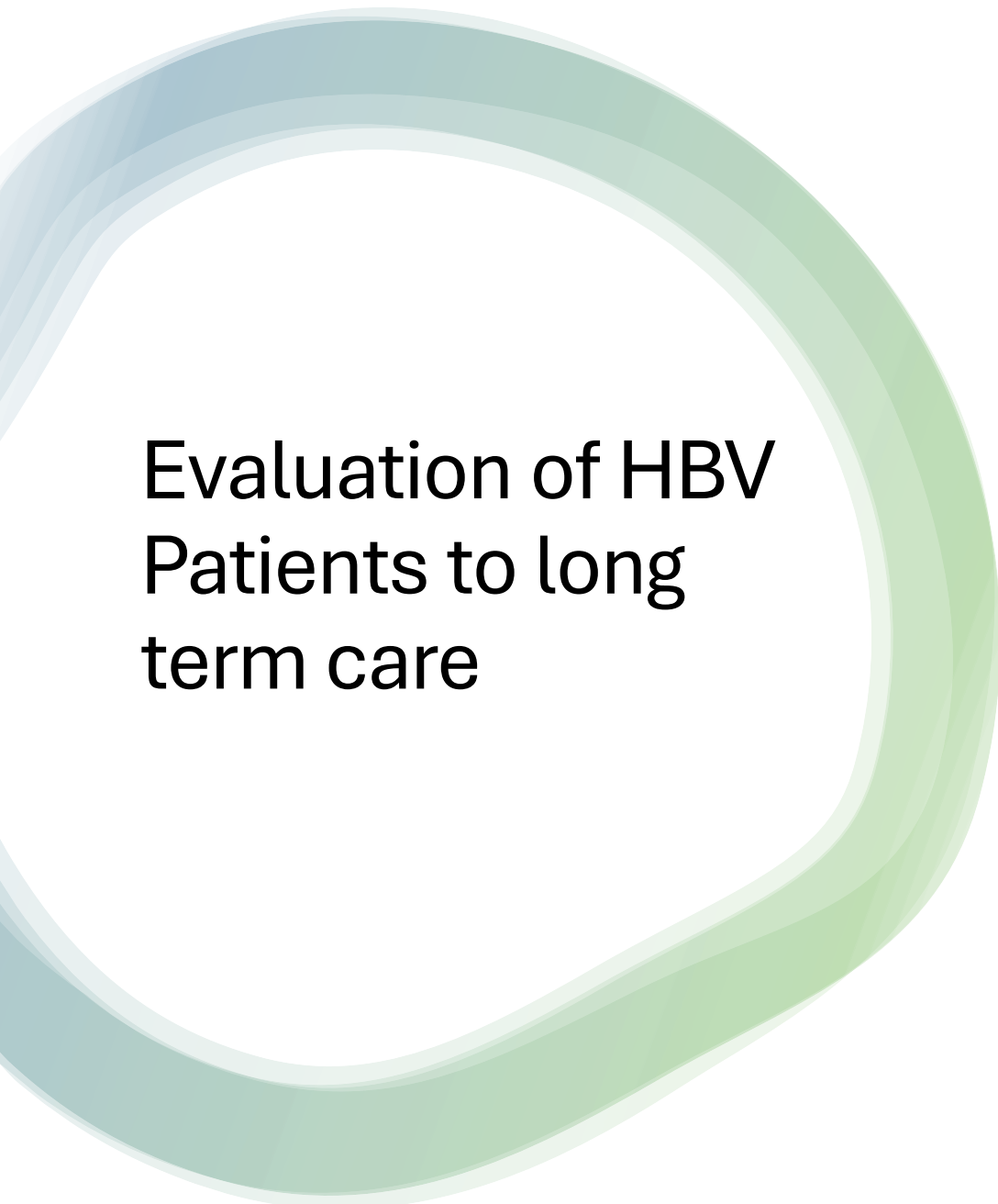
# Transition into Ongoing Care

## ➤ **Rapid Transition into Ongoing Care:**

- Another area that needed attention was the importance of rapidly transitioning individuals into ongoing care.
- To ensure continuity of care the program responded by incorporating HBV screening and integration of individuals into the US healthcare system.
- In all, the program's approach involved culturally sensitive education, integrating multiple healthcare aspects or provide comprehensive care for the community by addressed gaps in care related to HBV vaccination, evaluation of chronically infected individuals.



**The challenges of integrating an immigrant population with chronic hepatitis B into long-term hepatology care**



## Evaluation of HBV Patients to long term care


- Integration of individuals with HBV from West Africa identified in a screening program into long-term care is challenging.
- Inclusion of a serologic evaluation in programs for immigrant communities should be considered.
- Up to 30% of individuals with a serologic profile consistent with the HBV carrier state may have  $\geq$ F2 fibrosis.





## Methods used

- Between 2019 and 2023, 749 individuals were screened from multiple parts of the Starfish Program.
- Beginning 2022, all positive individuals were offered a free serologic evaluation.
- Details of the previous diagnosis, HBV care, the serologic evaluation, aspartate aminotransferase to platelet ratio index, and Fibrosis index-4 scores were recorded.
- The results of transient elastography (TE) were correlated with the serologic evaluation.



## Results of the Evaluation of HBsAg positive individuals

- A total of 75 (10%) individuals were hepatitis B surface antigen–positive, including 58 (77.3%) previously and 17 (22.7%) newly diagnosed.
- Only 14 (37.8%) of those diagnosed before the offer continued and/or entered long-term care. A total of 63 of 75 (84%) returned for the evaluation.
- Among 56 HBV treatment-naïve individuals, 66.1% had a serologic profile consistent with the carrier state. A total of 10 (18.2%) individuals met the criteria for HBV therapy, and 10 (21.7%) had  $\geq$ F2 fibrosis on TE.
- There was no correlation between aspartate aminotransferase to platelet ratio index and Fibrosis index-4 scores and TE. Eight (29.6%) of 27 patients with a profile of the HBV carrier state had  $\geq$ F2 fibrosis.



# Conclusion

- The importance of cultural sensitivity and community engagement in addressing significant medical issues like hypertension (HTN) and hepatitis B virus (HBV) were assessed.
- These conditions may be perceived differently, and lack of information and familiarity with Western medical care can hinder treatment.
- Cultural sensitivity can be incredibly valuable.
- The gap for understanding and acceptance of Western medical practices was addressed, making it easier to provide education, screening, and treatment for conditions that may be stigmatized or misunderstood.
- It helped the healthcare providers to understand the cultural context surrounding these conditions and tailor their approaches accordingly.
- This has improved access to care.



QUESTIONS?



# THANKS FOR JOINING!

CONNECT WITH US

HEPATITIS B FOUNDATION / HEP B UNITED

[INFO@HEPB.ORG](mailto:INFO@HEPB.ORG) / [CONNECT@HEPBUNITED.ORG](mailto:CONNECT@HEPBUNITED.ORG)

[WWW.HEPB.ORG](http://WWW.HEPB.ORG) / [WWW.HEPBUNITED.ORG](http://WWW.HEPBUNITED.ORG)

