



**Montefiore** Montefiore Einstein  
Center for Transplantation

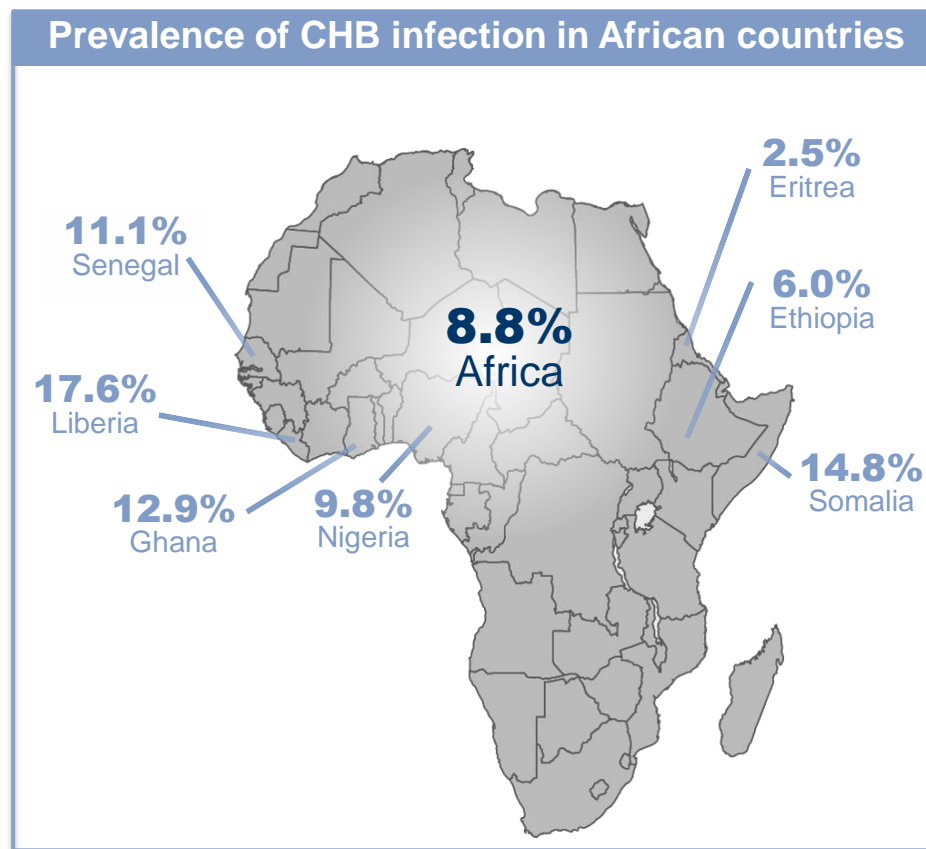
## Breaking Down Barriers for Hepatitis B Screening in the Bronx West African Community

### The Starfish Program

Education in Collaboration with  
Faith-based Organizations

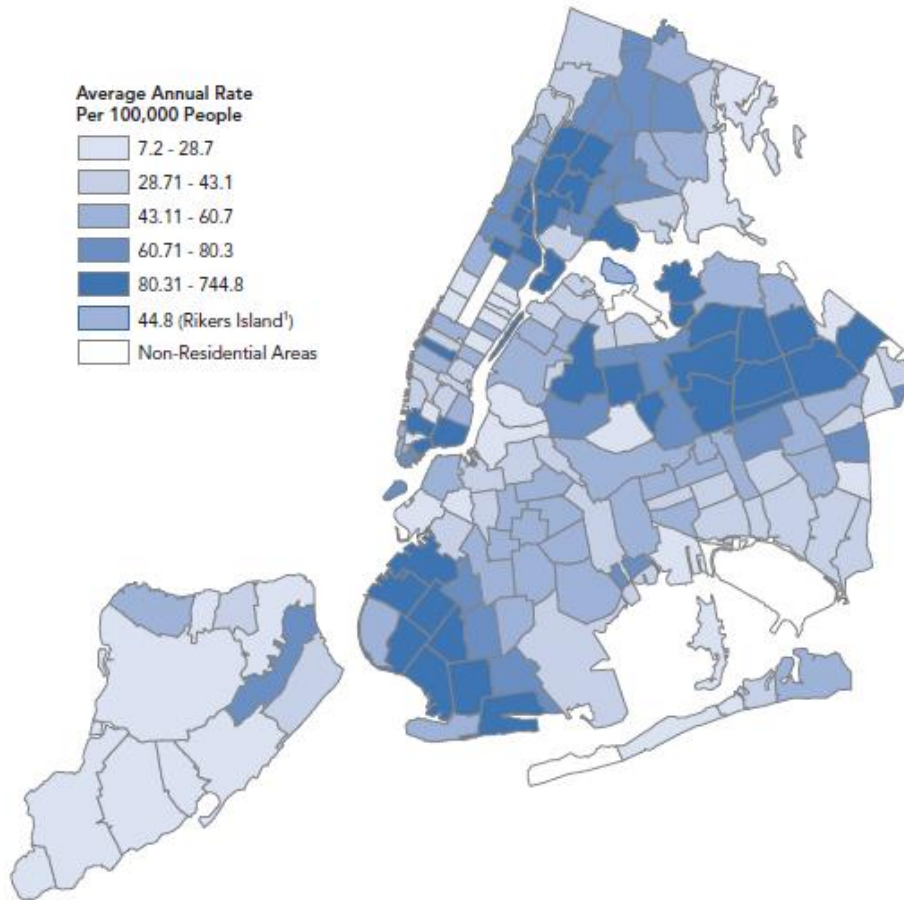
Fatima Omarufilo, MPH, PN

# Chronic hepatitis B in West Africa



- Highly prevalent
- Incidence ranging from 10-15%

# Hepatitis B in the Bronx New York



- Great increase in the number of immigrants from West Africa to the Bronx
- West African population increased by 39% between 2000 and 2011
- 10 percent of the immigrants in the Bronx are from West Africa



# Screening for hepatitis B among West Africans in the Bronx

- Transmission and its complications can be prevented
- Screening for the infection among Bronx West African immigrants is an important public health goal
- Public screening programs have traditionally been challenging in immigrant populations
- Hepatitis B virus (HBV) screening remains low among foreign-born communities in the US, including African immigrant communities



# Studies that have assessed Barriers to Screening

- Speculation
- No study directly assessed the various barrier

# Studies assessing barriers to screening: based on expert opinion

- Blanas DA, et al. Adapting the Anderson Model to a Francophone West African Immigrant Population: Hepatitis B Screening and Linkage to Care in New York City. J Community Health; 2015;40:175-184
  - 4 focus groups were conducted with 39 purposefully selected participants in French, audio-recorded, translated into English
- Mohamed EA, et al. Knowledge, attitudes, and behaviors of viral hepatitis among recent African Immigrants in the United States: A community based participatory research qualitative study. Front Public Health 2020;8:1–8.
  - 7 focus groups of participants from various African countries – Ethiopian, Kenyan and Liberians
- Freeland C, et al. Barriers to hepatitis B screening and prevention for African immigrant populations in the United States: A qualitative study. Viruses 2020;12:305–14.
  - 17 in-depth interviews with community health experts working in African immigrant communities
- Mukhtar NA, et al. Patient knowledge, beliefs and barriers to hepatitis B care: Results of multicenter, multiethnic patient survey. Dig Dis Sci 2021;66:434–41.
  - Questionnaires of community members demonstrating low level of knowledge of HBV transmission (44.39%) and history of screening and vaccination (49.23%)
  - Speculation about reasons for low levels





# Potential Barriers for Hepatitis B Screening

- Limited medical knowledge about Hepatitis B
- Health care cost
- Limited understanding and complexity of Western health care systems
- Stigma
- Cultural attitudes and practices – increase trust, understanding of shared community values.
- Development of culturally appropriate strategies to address disparities in viral hepatitis in these communities.
- Language barriers
- Immigration concerns



# Proposals to increase screening

- Education to create awareness
- Collaboration with faith-based organizations
  - West Africans place great importance on community and religious centers
  - Religious centers play an important role in their experiences of health and illness





# Rationale for the Starfish Program

- Starfish Program was created to break down the barriers towards screening through education in a culturally sensitive manner
- Important aspects of the program
  - Education and awareness
  - Staffing by West African health care providers
  - Collaboration with local faith-based centers

# Development of the Starfish Program

- Recruitment of West African personnel
  - Emmanuel Emeasoba, MD
  - Fatima Omarufilo, MPH
  - John Nnaemeka Bosah, MD
- Hepatitis B Patient Navigator
  - Monitor established Montefiore patients with chronic hepatitis B for compliance with testing, HBV therapy if indicated, and screening for liver cancer
  - Liaison for patients with chronic hepatitis B with treating physician
  - Participation in outreach to the Bronx West African Community for education and screening



# Development of HBV screening program

- Preparation of educational Power Point Presentation
- Networking with Bronx West African community and religious leaders
- Collaboration with religious leaders

# Culturally sensitive Power Point presentation

- Culturally appropriate clinical vignettes
  - vertical transmission
  - rapid death from hepatocellular carcinoma
- Epidemiology with an emphasis on West Africa (3 slides)
- Modes of transmission (3 slides)
- Chronic hepatitis (1 slide)
- Cirrhosis (4 slides demonstrating cirrhosis, ascites, esophageal variceal bleeding)
- Hepatocellular carcinoma including importance on West Africa (2 slides)
- Clinical evaluation (significance of various tests, 3 slides)
- Vaccination (1 slides)
- Steps for screening at Montefiore

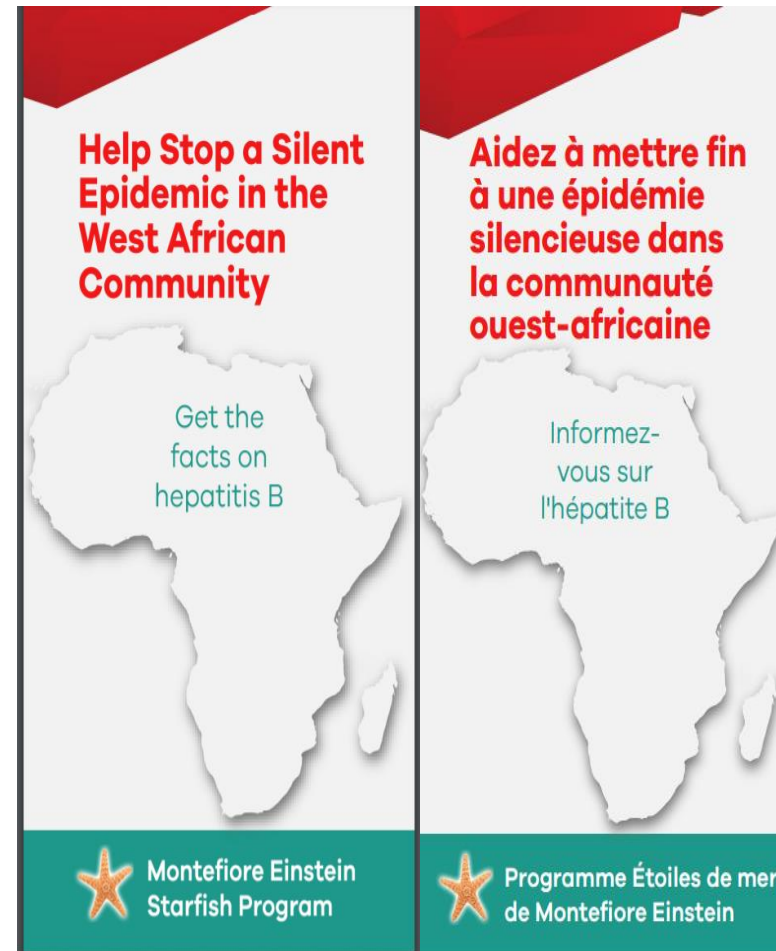


# Networking with the West African community

- Attendance at the monthly Bronx African Community Council at the Bronx County Court House where important issues concerning the community are discussed
- Appointment of member to the Community Board of the Montefiore Medical Center
- Attended religious services to assess functioning of the organizations
- Religious leaders directly contacted or by email and/or telephone to request meetings
  - Discussion of the impact of hepatitis B on West African community
  - Dates for educational events for the members of the church or mosque scheduled

# Educational Events

- Date and time advertised with flyers, social media, and announcements at weekly worship times
- Held after weekly worship to attain maximal attendance
- Refreshments provided
- Question-and-answer session after the presentation (30 to 60 minutes)
- Free ballpoint pen with Program logo and contact information provided
- Voluntary 6-question survey assessing impact of the presentation on a change towards the infection and motivation for testing
- Information brochure for West Africans on the importance of screening distributed (English, French, Hausa, Twi, Igbo)







# Serologic testing

- Initial program only included education
- Philanthropic funds obtained for on-site testing beginning June 2019
- Testing performed at the Moses Hospital of the Montefiore Medical Center



# Screening for hepatitis B at Montefiore

- Interested participants provided name and telephone numbers
- Participants contacted after the event to create MRNs
- Appointments for screening visit provided
- Two additional attempts made if a participant did not show for the scheduled appointment



# HBV screening at Montefiore

- Participant greeted by Starfish Program member at hospital entrance upon arrival
- Blood pressure measurement obtained for hypertension screening
- Voluntary questionnaire assessing demographics, previous testing for hepatitis B, medical history, and family history obtained
- Blood drawn for testing for HBs Ag and HBs Ab
- Date for return visit provided



# Results: Education Events

- All religious leaders approached readily agreed to host an educational event
- 43 educational events have been held to date
  - 6 churches, 16 mosques and 21 other organizations
  - 2717 participants

Reference: Emmanuel U. Emeasoba Fatima Omarufilo John Nnaemeka Bosah and Samuel H. Sigal,\*

## Results of the first 9 presentations

- 224 participants have tested already ( 63.7+6.4 %) (2/3)
- 325 participants (95.1%)completed questionnaires
- 332 participants requested testing

# Post-presentation Questionnaire

Table 1. Percentage of participants who answered in the affirmative on post-presentation questionnaire (mean, 95% confidence interval).

<b>Did this presentation improve your understanding of Hepatitis B?</b>	95.1 (94.8 to 95.4)
<b>Did this presentation increase your willingness to get tested for hepatitis B?</b>	82.7 (81.7 to 83.7)
<b>Do you intend to see your doctor to get tested for hepatitis B?</b>	82.7 (81.9 to 83.6)
<b>Are you more comfortable in talking and sharing a meal with someone who has hepatitis B?</b>	67.0 (65.8 to 68.3)
<b>Are you more willing to talk with your family and friends about hepatitis B?</b>	93.1 (92.2 to 94.0)
<b>Do you plan on encouraging your family members and friends to get tested for hepatitis B?</b>	97.8 (97.3 to 98.3)



# HBV screening

- Three hundred thirty two of the 550 participants (65.2+5.6%) participants requested serologic testing.
- Among those requesting testing, 224 (63.7+6.4%) individuals have returned to Montefiore for testing
  - Approximately 2/3's return for testing in the beginning
  - Currently approximately 90%

# Return visit for test results

- Great difficulty in complying with return visit for results
  - HBs Ag negative patients
    - contacted by telephone with results
    - Sent letter with results
  - HBs Ag positive
    - Re-scheduled until in-person discussion with supervising hepatologist
    - Topic reviewed
      - Requirements for a complete evaluation
      - Indications for treatment
      - Importance of screening for liver cancer
      - Importance of screening of all close contacts
  - Non-immune individuals
    - Referred to PCP, DOH
    - List maintained
    - Philanthropic funds for Free vaccination obtained
    - All contacted to ensure vaccination and arrange for free vaccination if not performed after screening

# Linkage to Care

- HBs Ag positive participants - primary care provider or referral for hepatology consultation depending on patient preference and situation
- For participants with an elevated blood pressure
  - Importance of treatment
  - Instructed to contact PCP or referral based on situation
- Participants without insurance
  - Enrolled in a Medicaid program if eligible
  - Referred to a hospital of the New York City municipal health care system



# Conclusions

- HBV is a major health disparity that disproportionately affects vulnerable populations, especially the West African immigrant community
- Multiple potential barriers to screening have been proposed
- Our findings indicate that an educational program staffed by West African personnel working in collaboration with religious leaders is all that is required to motivate people to undergo testing