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

  - 4 focus groups were conducted with 39 purposefully selected participants in French, audio-recorded, translated into English

  - 7 focus groups of participants from various African countries – Ethiopian, Kenyan and Liberians

  - 17 in-depth interviews with community health experts working in African immigrant communities

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

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