Hepatitis Outreach Network: HBV Outreach in New York City

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Disclosures

- There are no financial interests to declare
Learning Objectives

By the end of this presentation, participants will be able to understand:

• What is Hepatitis B and which populations are mostly affected by it
• Hepatitis Outreach Network's outreach to African born communities in NYC
• Community partnerships and the importance of community leaders and spaces for hepatitis screening
Hepatitis B Epidemiology
Identifying at-risk populations

- 257 million persons (3.5% population) infected
- 68% in Africa and Western Pacific
- In the US, ~850,000 are chronically infected
- Leading cause of cirrhosis and hepatocellular carcinoma (HCC) worldwide
- 30%-50% of HCC associated with HBV in the absence of cirrhosis

From 2015 to 2017, there was a 22% increase in reported deaths related to chronic hepatitis B.
Previous prevalence estimate for New York City was 1.2% but it did not account for persons with undiagnosed infection.

Updated 2016 data estimates including those undiagnosed show much higher percentages of 2.7% for NYC residents and 6.9% for NYC residents born outside of the US.

- 46.2% of African population in NYC was undiagnosed

Moore et al. Public Health Reports, 2019
Global and U.S. Goals for Elimination of HBV as Public Health Threat by 2030

By 2030, 90% reduction in new infections and 65% reduction in deaths

## HBV modes of transmission

<table>
<thead>
<tr>
<th>ENDEMIC COUNTRIES</th>
<th>NONENDEMIC COUNTRIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Mother to baby at time of birth (~50% of cases, most common among Asians)</td>
<td>• Adult sexual activity (~54% of cases, most common)</td>
</tr>
<tr>
<td>• Horizontal within household during early childhood (Virus can survive at least 7 days outside body)</td>
<td>• IV drug use (~20% of cases)</td>
</tr>
<tr>
<td>• Health care (Re-use of non-sterilized needles and syringes in resource-poor areas, contaminated blood products)</td>
<td></td>
</tr>
<tr>
<td>• Possible role for traditional medicine and practices (Acupuncture, cupping, scarification, etc.)</td>
<td></td>
</tr>
</tbody>
</table>
USPSTF screening recommendations for HBV infection in high-risk individuals

- People born in regions with prevalence of HBV infection of ≥2%
- US-born people not vaccinated as infants whose parents were born in regions with prevalence of HBV infection of ≥8%

Hepatitis B Disease Progression

Acute infection → Chronic infection → Cirrhosis → Liver failure (Decompensation) → Liver transplant → Death

Liver cancer (HCC) 5% - 10%
Liver failure (Decompensation) 30% - 40%

6th leading cause of liver transplantation in the United States

What are the symptoms of Hepatitis B?

- **Asymptomatic** in 70% of infected persons
- Symptoms can include
  - Fever
  - Fatigue
  - Loss of appetite
  - Abdominal pain
  - Nausea and/or Vomiting
  - Grey-colored stools
  - Dark urine
  - Joint pain
  - Yellow eyes

Chronic HBV infection usually asymptomatic, even with liver cancer and well-compensated cirrhosis
Hepatitis B, HCC and African Community
HCC, HBV and African Communities

- HCC is a major cause of premature death in Africa
  - Incidence of 8.9 per 100,000 person-years\(^1\)
- Viral hepatitis is the dominant risk factor for HCC in Africa\(^2\)
- 23% of all individuals with HBV infection globally reside in Africa\(^3\)
- Approximately 4.3 million members of the sub-Saharan African diaspora resided in the United States in 2017
  - This estimate includes individuals who were either born in the region or who reported sub-Saharan African ancestry regardless of their place of birth.

2. Lemoine et al. J Hepatol 2017
3. WHO
4. US Census Bureau, 2017 American Community Survey
Sub-Saharan African Immigrant Population in the United States, 1980-2018

Top Destination States for Sub-Saharan African Immigrants in the United States, 2013-17

Source: MPI tabulation of data from U.S. Census Bureau pooled 2013-17 ACS. https://www.migrationpolicy.org/article/sub-saharan-african-immigrants-united-states
### Top Concentrations for Sub-Saharan African Immigrants by U.S. Metropolitan Area, 2013-17

<table>
<thead>
<tr>
<th>Metropolitan Area</th>
<th>Immigrant Population from Sub-Saharan Africa</th>
<th>% of Metro Area Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>New York-Newark-Jersey City, NY-NJ-PA Metro Area</td>
<td>187,600</td>
<td>0.9</td>
</tr>
<tr>
<td>Washington-Arlington-Alexandria, DC-VA-MD-WV Metro Area</td>
<td>181,700</td>
<td>3.0</td>
</tr>
<tr>
<td>Minneapolis-St. Paul-Bloomington, MN-WI Metro Area</td>
<td>84,100</td>
<td>2.4</td>
</tr>
<tr>
<td>Dallas-Fort Worth-Arlington, TX Metro Area</td>
<td>83,000</td>
<td>1.2</td>
</tr>
<tr>
<td>Atlanta-Sandy Springs-Roswell, GA Metro Area</td>
<td>82,000</td>
<td>1.4</td>
</tr>
<tr>
<td>Houston-The Woodlands-Sugar Land, TX Metro Area</td>
<td>74,600</td>
<td>1.1</td>
</tr>
<tr>
<td>Boston-Cambridge-Newton, MA-NH Metro Area</td>
<td>63,700</td>
<td>1.3</td>
</tr>
<tr>
<td>Philadelphia-Camden-Wilmington, PA-NJ-DE-MD Metro Area</td>
<td>49,100</td>
<td>0.8</td>
</tr>
<tr>
<td>Los Angeles-Long Beach-Anaheim, CA Metro Area</td>
<td>47,400</td>
<td>0.4</td>
</tr>
<tr>
<td>Seattle-Tacoma-Bellevue, WA Metro Area</td>
<td>45,400</td>
<td>1.2</td>
</tr>
</tbody>
</table>

*Source: MPI tabulation of data from U.S. Census Bureau pooled 2013-17 ACS. [https://www.migrationpolicy.org/article/sub-saharan-african-immigrants-united-states](https://www.migrationpolicy.org/article/sub-saharan-african-immigrants-united-states)*
Age Distribution of US Resident by Origin, 2017

Note: Numbers may not add up to 100 as they are rounded to the nearest whole number.
Source: MPI tabulation of data from the U.S. Census Bureau, 2017 ACS. https://www.migrationpolicy.org/article/sub-saharan-african-immigrants-united-states
Employed Workers in the U.S. Civilian Labor Force (ages 16 and older) by Occupation and Origin, 2017

Source: MPI tabulation of data from the U.S. Census Bureau, 2017 ACS. https://www.migrationpolicy.org/article/sub-saharan-african-immigrants-united-states
Sub-Saharan Africans and All Immigrants in the United States by Period of Arrival, 2017

![Bar chart showing the percentage of Sub-Saharan African immigrants and all immigrants by period of arrival in the United States in 2017. The chart indicates higher proportions of Sub-Saharan African immigrants arriving before 2000 compared to all immigrants, with a significant drop post-2000.](https://www.migrationpolicy.org/article/sub-saharan-african-immigrants-united-states)
Immigration Pathways of Sub-Saharan Africans and All Legal Permanent Residents (LPRs) in the United States, 2017

Health Coverage for the U.S. Population by Nativity, 2017

Source: MPI tabulation of data from the U.S. Census Bureau, 2017 ACS.
The Hepatitis Outreach Network (HONE)
The Hepatitis Outreach Network (HONE) is a community viral hepatitis screening and link to care program which focuses on minority and foreign born groups in NYC who are at risk for chronic hepatitis B (HBV) and chronic hepatitis C virus (HCV) infection.

- Started in 2009
- Partnership with community based organizations, public health and health center partners
- Culturally conscious outreach that aids in delivering hepatitis education and advocacy
  - Working with predominantly African immigrant communities since 2011
**HONE Program**

- Free Hepatitis B and Hepatitis C testing
- Facilitate linkage to care for persons with HBV and/or HCV infection
- Education and screening events in communities with high prevalence of HBV and/or HCV infection in the New York Metropolitan Area
- Patient navigation is the process of guiding clients through and around various barriers in our complex health system for sustainable long term management of care
Hepatitis Outreach Network (HONE): Proof of Principle

Background:
- Most HBV infection in foreign born populations and HCV screening missing many people

Aims:
- Create a community based viral hepatitis outreach program targeting foreign born communities
  - Engaged community partners
  - Implement culturally targeted navigation
  - Offer education, testing and link to care

Results:
- 1603 tested for HBV and HCV 2009-2011
  - 76 HBV infected
    - 57% medical evaluation
    - 100% recommended for treatment started
  - 75 HCV infected
    - 64% medical evaluation
    - 73% recommended for treatment started
- Linked participants to long term follow up care

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>% of n=1603</th>
<th>National Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex, female</td>
<td>54%</td>
<td>51%</td>
</tr>
<tr>
<td>Insurance</td>
<td>44%</td>
<td>83%</td>
</tr>
<tr>
<td>Primary care physician</td>
<td>43%</td>
<td>n.a.</td>
</tr>
<tr>
<td>Household Income Median</td>
<td>$25,000</td>
<td>$49,777</td>
</tr>
<tr>
<td>Education High School</td>
<td>46%</td>
<td>87%</td>
</tr>
</tbody>
</table>

African born persons with >8% HBV infection

Perumalswami PV, et al. J. Hepatol 2013
**Background/Aims:**
- >1.7 million African immigrants\(^1\)
- Better define HBV infection

**Methods:**
- Partner with African Services Committee

**Results\(^2\):**
- West Africans from 31 countries
- 90% attended visits at Mount Sinai

**Conclusion:**
- Culturally targeted patient navigation is effective

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Identify and Address Barriers to HBV Screening in Africans in the United States

- Identify barriers
  - Knowledge assessment

Strategies to Overcome Barriers
- Develop educational tools
  - Reassurance regarding disclosure of tests results
  - Preferred language French
  - Involved community leaders
  - Create a roadmap to care

<table>
<thead>
<tr>
<th>Barriers</th>
<th>Facilitating Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limited HBV knowledge</td>
<td>Wanting to know their status</td>
</tr>
<tr>
<td>Stigma</td>
<td>Community support</td>
</tr>
<tr>
<td>Fear of disclosure of test results</td>
<td>Availability of HBV treatment</td>
</tr>
<tr>
<td>Health seeking only if symptomatic</td>
<td>Confidence in US medical system</td>
</tr>
<tr>
<td>Language barriers</td>
<td>Testing free</td>
</tr>
<tr>
<td>Time constraints</td>
<td>Convenient location</td>
</tr>
<tr>
<td>Financial</td>
<td>Family support</td>
</tr>
</tbody>
</table>

2. Bride M, et al. J of Immigrant and Minority Health April 2018
Patient Navigation

• HONE is open to all regardless of immigration and insurance status. It is gateway for clients living with Hep B into the healthcare system by reducing some of the barriers that would stop them from seeking care

• ASC serves as a community liaison and advocate for clients who are a part of HONE
• Founded in 1981, ASC is a multiservice human rights agency based in Harlem and dedicated to assisting immigrants, refugees and asylees from across the African Diaspora.

• In partnership, with HONE, ASC provides community screening and education events, facilitates in patient navigation and linkage to care for positive clients.
West African Community Advisory Panel (CAP)

- Established in 2017, West African CAP with ASC
- Meets twice a year
- Comprised of community leaders (>12) or gatekeepers from the West African diaspora community
- Discuss needs of the community and develop project ideas
  - Developed a toolkit of resources for providers in West Africa
  - HBV Project ECHO provider trainings
- Lead to R21 application submitted to NIMHD/NCI
- Enhances community engagement to continue HONE efforts
Community Outreach
### 2018-19 Summary Data (n=888)

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex, Male n (%)</td>
<td>562 (63)</td>
</tr>
<tr>
<td>Average Age (years)</td>
<td>49</td>
</tr>
<tr>
<td>Number of screening events</td>
<td>53</td>
</tr>
<tr>
<td>Country of Origin</td>
<td></td>
</tr>
<tr>
<td>Senegal</td>
<td>181 (11 HBV)</td>
</tr>
<tr>
<td>Guinea</td>
<td>75 (6 HBV)</td>
</tr>
<tr>
<td>Burkina Faso</td>
<td>166 (16 HBV)</td>
</tr>
<tr>
<td>Other countries include</td>
<td>Mali, Guinea, Liberia, Sierra</td>
</tr>
<tr>
<td></td>
<td>Leone</td>
</tr>
</tbody>
</table>
2018-19 Screening Results (n=888)

- 122 (16%) isolated HBcAb positive
- 124 (17%) isolated HBsAb positive cases
2018-19 HBV Infected Breakdown by Age
Linkage to Care Results

- 62 (7%) positive for HBV
Future Goals for HONE

- Increased screening for women in the African community
- Continued collaboration with African Services, community leaders and other engaged grassroots organizations in NYC
- Expand on culturally competent educational programs provided by catering to some common indigenous dialects spoken outside of French like Wolof and Fulani
Coalition Against Hepatitis for People of African Origin (CHIPO)

• CHIPO is a national community coalition co-founded and led by the Hepatitis B Foundation.
• Comprised of organizations and individuals interested in addressing the high rates of hepatitis B infection among African communities in the U.S.
Additional Resources

- CDC Know Hepatitis B Campaign
- HepB Foundation Educational Materials for African Populations
- HBV toolkit for West African Communities
References


• [https://cdafound.org/content/hepsummit/Viet%20Nam%20Poster%20GHS%202018_HBV.pdf](https://cdafound.org/content/hepsummit/Viet%20Nam%20Poster%20GHS%202018_HBV.pdf)


• [https://www.cdc.gov/knowhepatitisB/](https://www.cdc.gov/knowhepatitisB/)

• [https://www.cdc.gov/hepatitis/index.htm](https://www.cdc.gov/hepatitis/index.htm)


• [https://www.migrationpolicy.org/article/sub-saharan-african-immigrants-united-states](https://www.migrationpolicy.org/article/sub-saharan-african-immigrants-united-states)
Thank you!