The Burden of Hepatitis B Among the Immigrants and Refugees of King County - 2019

PHPDA
PACIFIC HOSPITAL PRESERVATION & DEVELOPMENT AUTHORITY

STRATEGIES TO IMPROVE HEALTH CARE FOR UNDERSERVED POPULATIONS IN KING COUNTY

January 5th, 2022

Devin Razavi-Shearer, Health Equity Scholar

Agenda

- Methodology
- Outputs
- Current Strategies
- Identified Gaps and Solutions
- Recommendations and Future

Previously completed a national study on the burden of hepatitis B in the United States

- Center for Disease Analysis Foundation's PRoGReSs Model
  - Utilized by dozens of nations to plan for hepatitis elimination, the World Health Organization, and GAVI
- Annual data on lawful permanent residents (LPRs) were combined with 166 country specific models
  - Country specific models available for 99.4% of LPRs since 1900
  - Considers impact of vaccination programs in country of birth
  - Considers changing prevalence in country of birth
  - Considers age and sex

Applying the national data to King County

American Community Survey (ACS) 2019 King County Foreign Born Population

- Includes all foreign born regardless of status

Country of birth specific national estimates in 2019 were applied to King County data

Country specific uncertainty intervals from the national level was applied to the low and high estimates from the ACS data on King County

- Negatives removed

Limitations

The prevalence of HBV is heterogenous in the country of birth

Immigrants tend to migrate to cities in which individuals from their specific areas have already been established

- This could result in a higher or lower prevalence than the national estimates
- Some immigrants may have a lower prevalence, particularly later stages of the disease
- Refugees have been reported to have a higher prevalence

Uncertainty analysis attempts to take these into consideration

ACS does not report all countries

- Weighted average of immigrant prevalence by region were applied to these populations

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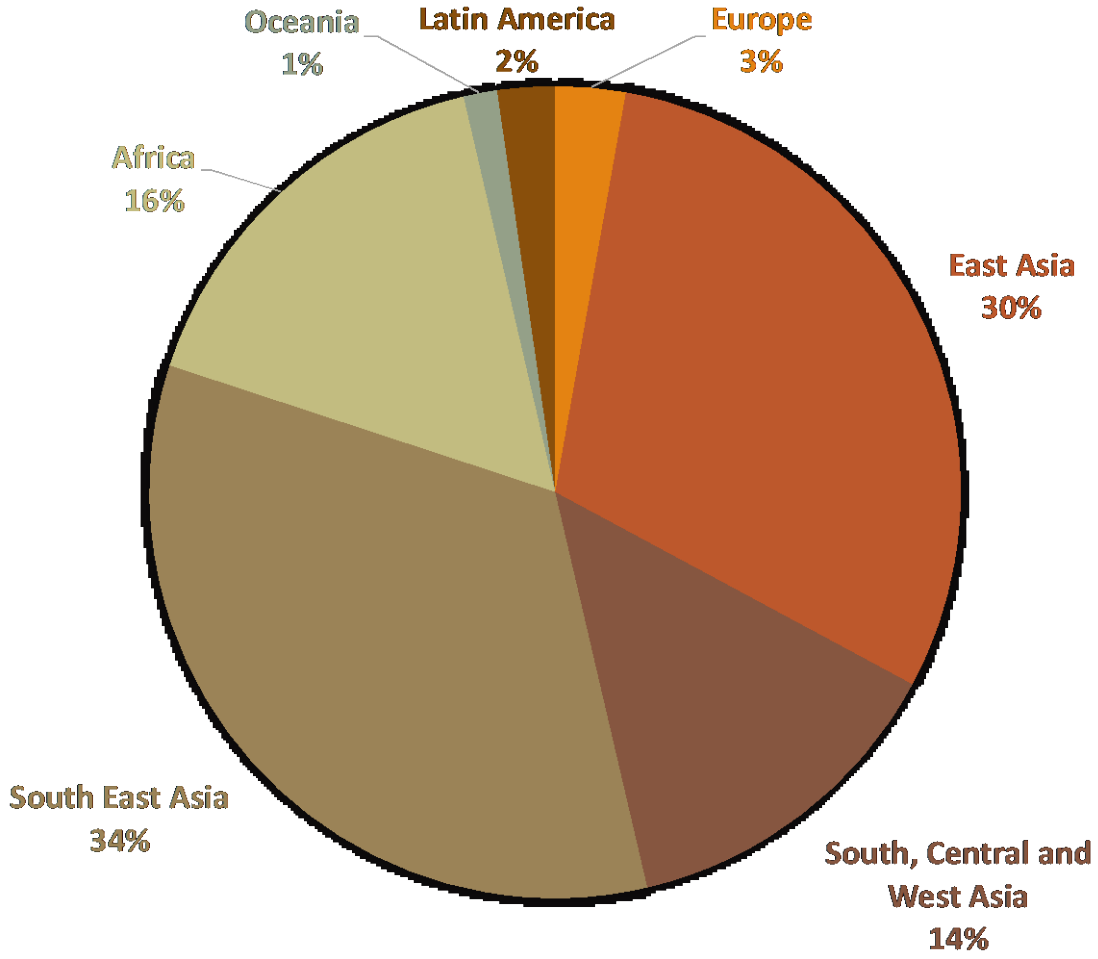
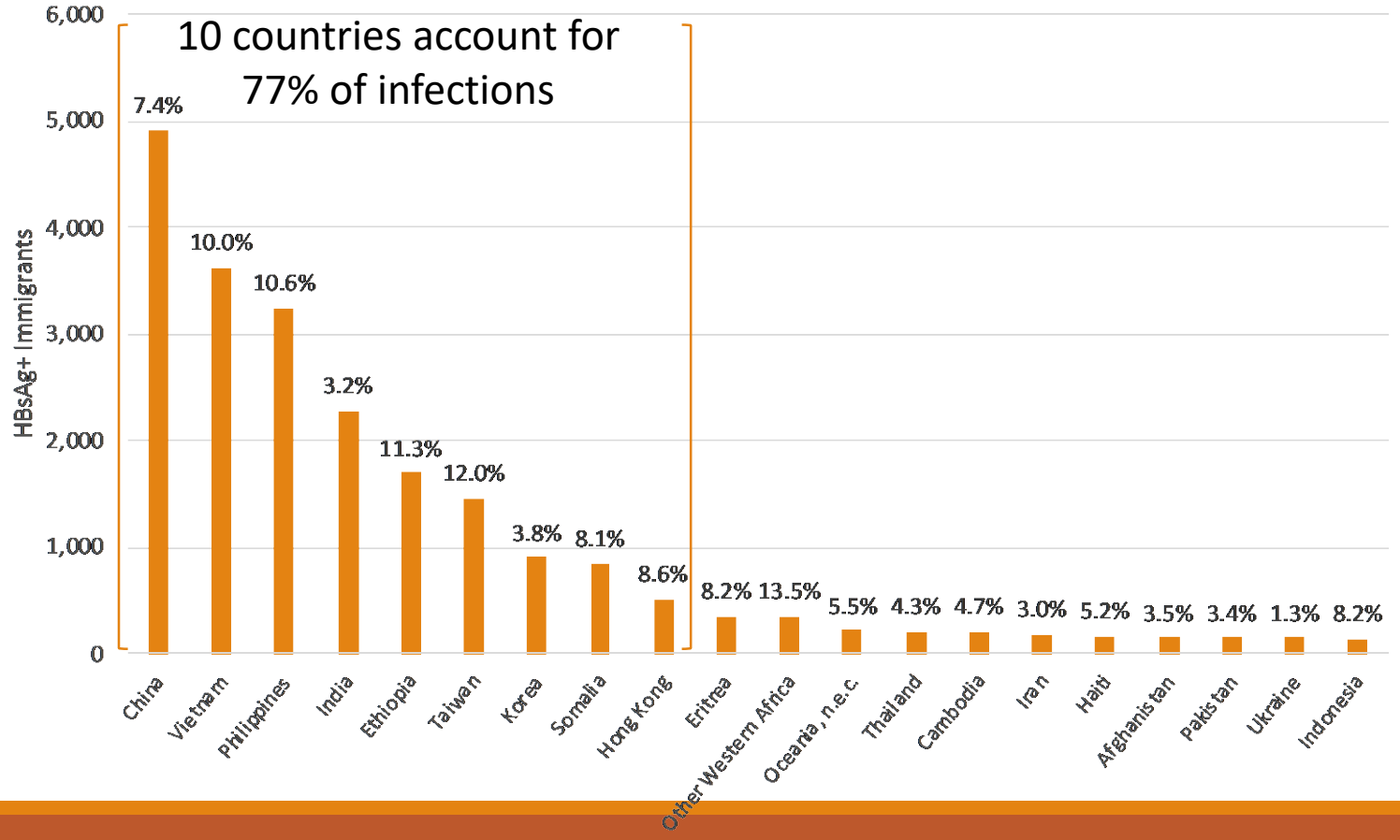
64% of all cases were estimated to be among East and South-East Asians



In 2019, it is estimated that there were 25,320 (UI: 15,490-44,740) HBsAg+ foreign born individuals alive in King County

- Corresponds to a prevalence of 4.5% (UI: 2.7-8.0%) among foreign born individuals



Specific Communities of Interest

Country	Immigrant Prevalence (UI)
China	7.4% (6.4-8.2%)
Philippines	10.6% (8.6-17.0%)
Vietnam	10.0% (9.0-16.2%)
Ethiopia	11.3% (9.3-12.1%)
Somalia	8.1% (6.5-9.7%)
Eritrea	8.2% (6.6-9.9%)
Afghanistan	3.5% (2.2-5.0%)

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Current Strategies

- All refugees are screened by the Department of Health
- Pregnant women that engage in prenatal visits should be screened for hepatitis B
  - Still a gap between linking the pregnant woman to care
- Screening outside of these groups is ad-hoc
  - Country of birth unreliable data point, language could be used to prioritize screening
- Immunization has own program but also relies on community partners
- Labs are often the one to report to the Departments of Health and their data is often missing key indicators

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King County Has Great Resources – Need to Cultivate the Relationships

Provider Problems – AASLD Guidelines

Hepatitis B Online Provides Primary Care Guidance - hepatitisb.uw.edu

Management of the HBsAg(+) Patient[1]

Cirrhosis	HBV DNA (IU/mL)	ALT (U/L)	Management
NO	>2,000	Elevated[3]	> TREAT with antiviral medication (page 6) > Monitor HBV DNA and ALT every 6 months > Monitor HBeAg and anti-HBe every 6 months in patients who are HBeAg+ at time of treatment initiation to evaluate for seroconversion from HBeAg(+)/anti-HBe(-) to HBeAg(-)/anti-HBe(+) > Check HBsAg annually if/when HBeAg negative
		Normal	> Monitor HBV DNA and ALT every 6 months > Liver fibrosis assessment every 2 to 3 years
	≤2,000	Elevated[3]	> Evaluate other etiologies for elevated ALT > Monitor HBV DNA and ALT every 6 months
		Normal	> Monitor HBV DNA and ALT every 6 months and HBsAg every 1 year for seroclearance

[1] In contrast to other HBV guidelines that have incorporated HBeAg status into treatment initiation decisions for non-cirrhotic HBsAg(+) patients, this guidance for primary care providers uses only HBV DNA and ALT to determine initial treatment indication in non-cirrhotic HBsAg(+) patients.

[2] Patients should be considered to have decompensated cirrhosis and promptly referred to a hepatologist if any of the following are present: jaundice, ascites, variceal hemorrhage, hepatic encephalopathy, or a Child-Turcotte-Pugh (CTP) score ≥7 (see *Hepatitis B Online* CTP calculator.

[3] Elevated ALT defined as >25 U/L in females and >35 U/L in males that is persistent for at least 3 to 6 months.

Washington State Department of Health & Public Health Seattle & King County

- Lack of a State Elimination Plan
  - The HCV Elimination plan increases communication and resources internally and externally
- Hepatitis B spread between multiple divisions, Community Health Division, Communicative Disease Infection Investigation, and Immunization
  - Need to foster stronger relationships to increase the impact the current programs could have
    - Vaccinate individuals identified as needing it
  - Need a systematic approach and more staffing
  - Follow-up with household contacts of women identified through the perinatal program
    - Perinatal program does not have the data systems or resources to do this currently
  - DOH cannot provide evaluation and linkage to care
  - No rapid point of care tests are available in the US for hepatitis B

Community

- Large need for education regarding hepatitis B
  - There are often misconceptions regarding hepatitis B, particularly with community members believing the risk factors for hepatitis A are the same for hepatitis B
  - Education can aid in reducing stigma
  - Can increase those seeking diagnosis, linkage to care, and treatment
- Stronger collaborations needed between the Community Health Boards and Patient Advocacy Groups
- There is often funding available for education programs

Community

- Screening should be offered at community events with health and education focus
  - Collaborations with the Community Health Boards would have a major impact
  - No rapid point of care tests are available in the US for hepatitis B

- Vaccination could be offered at community events as well
  - Optimally this would target anyone in the community that is HBsAg-

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Optimal Strategy

- Screening occurs both at community events and in interactions with the health care system with a one-time test for all for foreign born individuals
  - This could be aided by an EMR pop-up which would be more feasible with an elimination plan in place

  - HBsAg+
    - Link to care, within their primary care if possible
    - Test all household members, those that are negative with no history of vaccination be offered vaccination
    - Educate patient and household members

  - HBsAg-
    - Vaccinate

Recommendations for PHPDA

- PHPDA already has funded many of the stakeholders involved
- Funding for the screening, linkage to care, and vaccination for hepatitis B among immigrant and refugee communities would be very beneficial
- Funding for education is important, but there are also many other avenues that organizations could take
- Funding for hepatitis B dedicated patient navigators could be interest depending on the population served
- Some organizations may ask for funding for serosurveys, but this is not recommended as additional data will not change any decisions that need to be made

Immediate Outcomes of the Project

- A range of stakeholders came together to discuss the issue and what can and could be done about it
- Public Health Seattle & King County is very supportive of an elimination plan and project
- Washington State Department of Health is renewing their efforts to finalize a hepatitis B assessment for the state that was put on hold due to COVID-19
- Washington State Department of Health is considering an elimination plan
  - There is additional pressure from stakeholders