

# Liver cancer among sub-Saharan African immigrants with hepatitis B in NYC, 2001-2020

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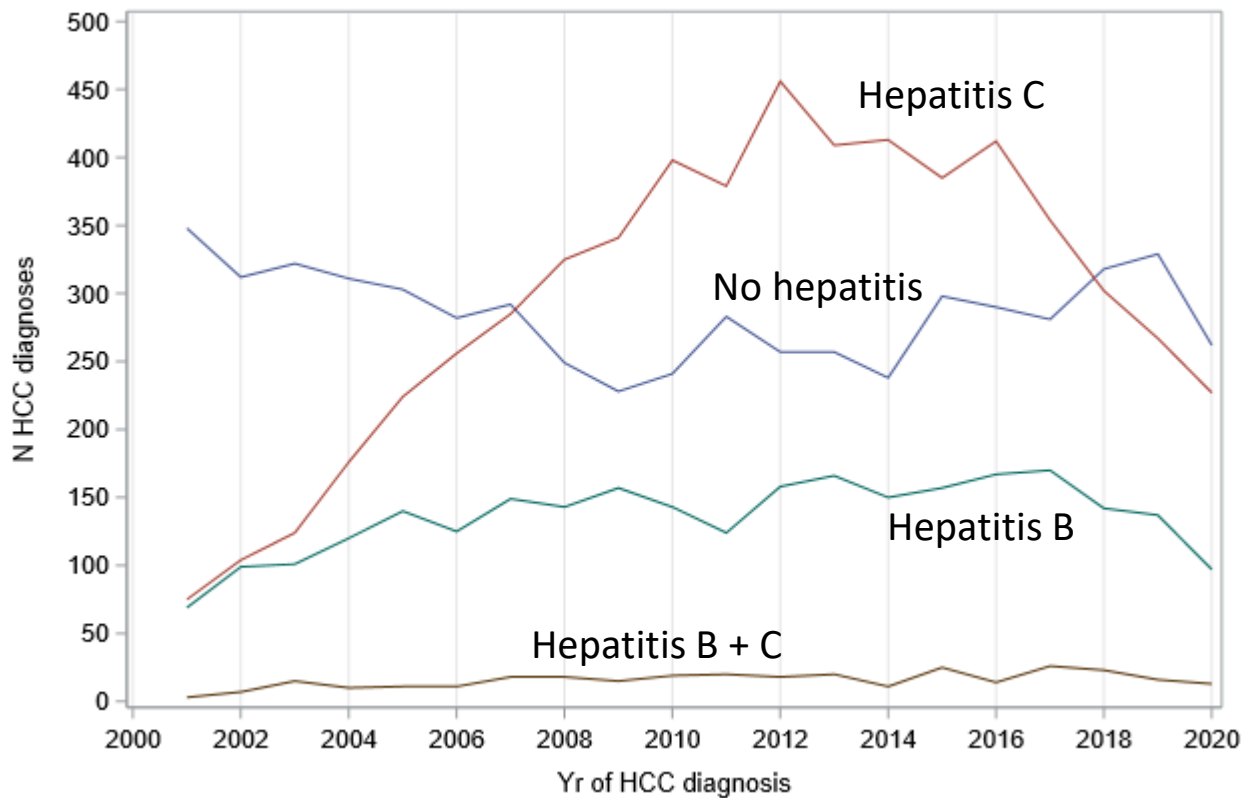
Bureau of Hepatitis, HIV, and Sexually Transmitted Infections

*Envisioning a New York City without transmission or illness related to viral hepatitis, HIV, and sexually transmitted infections.*

# Background: Hepatitis B and Hepatocellular Carcinoma in the US

- Chronic infection with hepatitis B virus is an important cause of hepatocellular carcinoma (HCC)
- In the US, immigrants from Asia and Sub-Saharan Africa have a disproportionately high occurrence of both chronic hepatitis B and of HCC
- In NYC, overall HCC diagnoses are declining, but no declines for HCC in presence of hepatitis B

# HCC diagnoses in NYC by viral hepatitis infection, 2001-2020

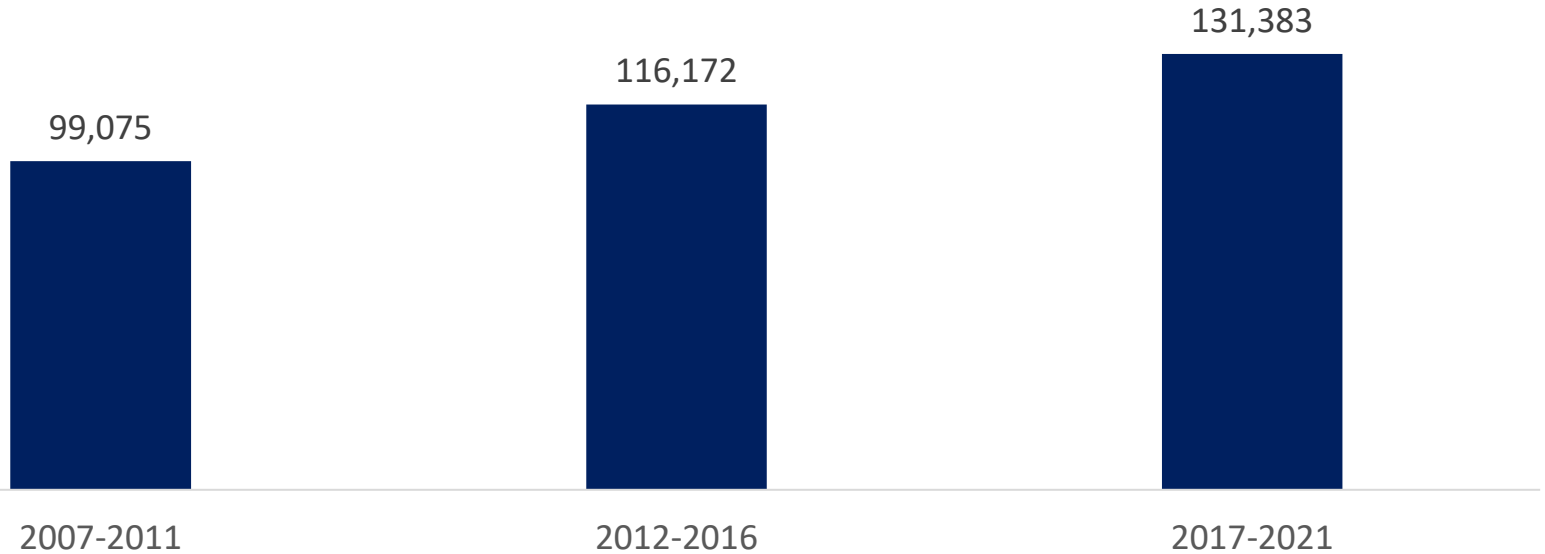


# HCC screening recommendations for individuals with hepatitis B

- For people with chronic hepatitis B and without cirrhosis, regular HCC screening is generally recommended beginning at age 40
- AASLD 2019 guidelines recommend screening at **age 20** for all **African-born & North American Black individuals** with chronic hepatitis B
- **Lack of large and/or population-based studies** to better understand this phenomenon
- Screening guidelines can only work to improve outcomes if people know they have HBV
  - Many people **aren't diagnosed with hepatitis B until they already have HCC**

# The Sub-Saharan African population in NYC is increasing

Sub-Saharan African population in NYC, American Community Survey 5-year estimates



# Some key questions

- Compared to other populations with hepatitis B and HCC, are Sub-Saharan African immigrants with hepatitis B and HCC more likely to:
  - Be diagnosed with HCC at earlier ages?
  - Be diagnosed with hepatitis B and HCC at the same time?

# Overview of analysis

## Design

- **Descriptive**, cross-sectional analysis

## Population

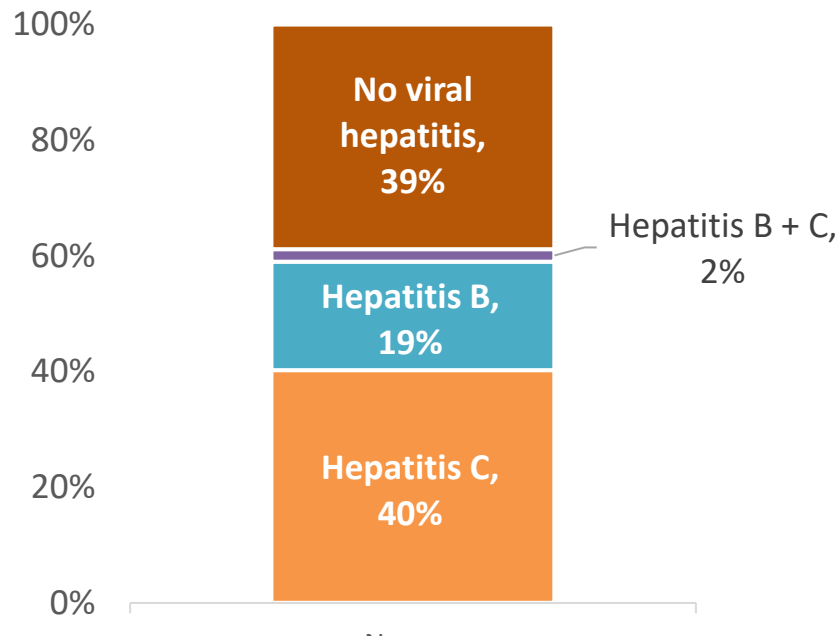
- Chronic **HBV cases** reported to NYC Department of Health & Mental Hygiene and identified as having **HCC** via match with the NY Cancer registry

## Time period

- HCC diagnoses from **2001-2020**

# HCC diagnoses by viral hepatitis infection, NYC 2001-2020

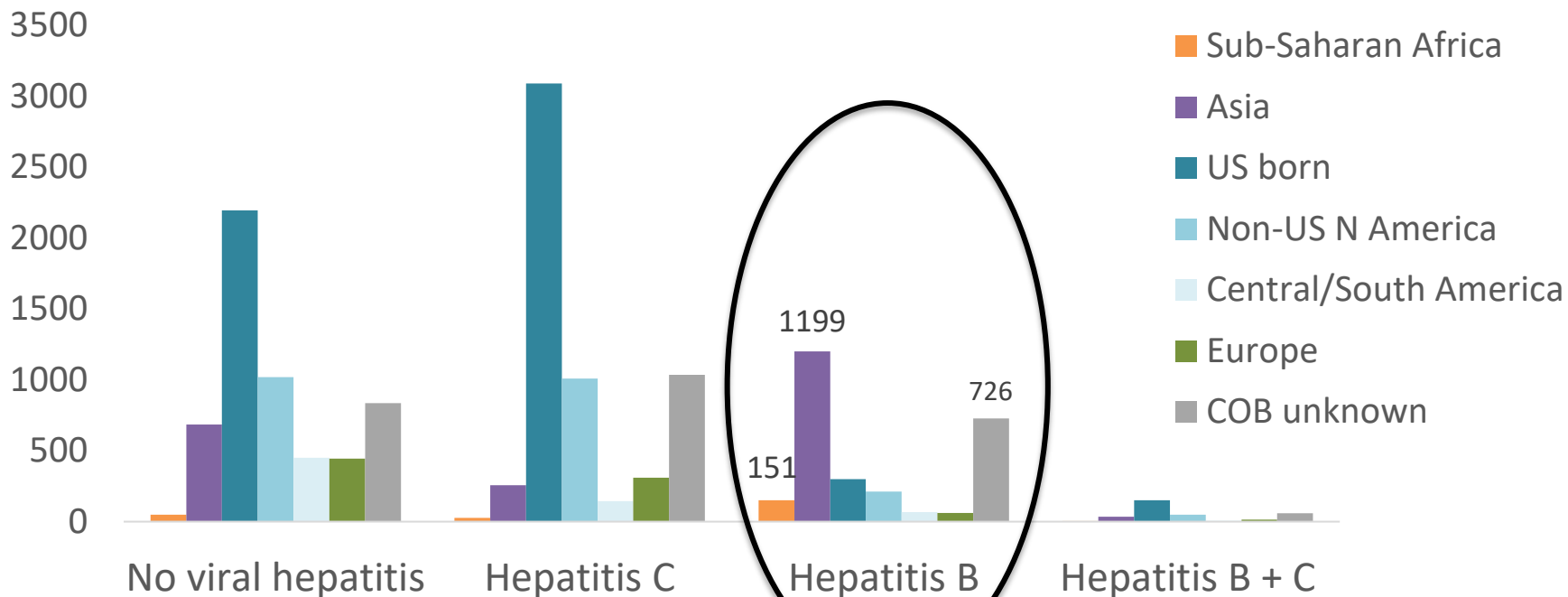
HCC cases in NYC, 2001-2020 (N=14,639)





# Most individuals with HCC and hepatitis B are Asian-born

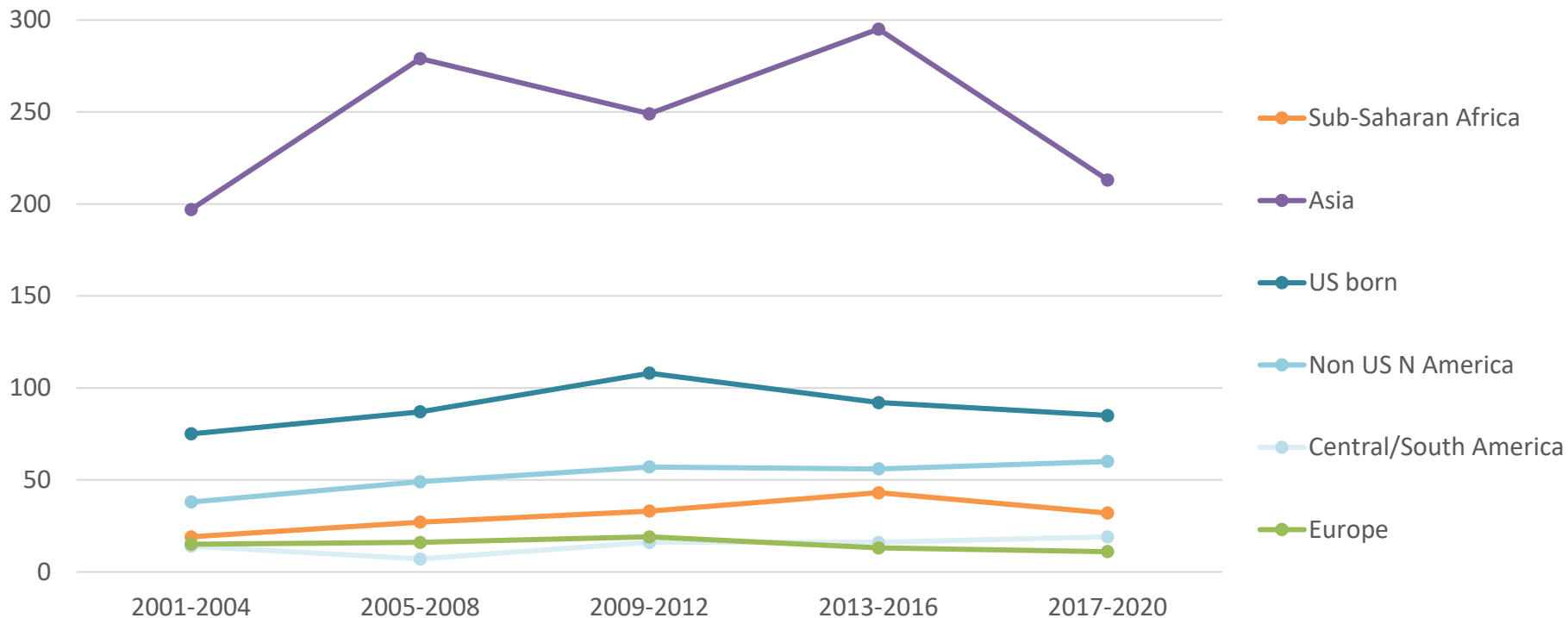
HCC diagnoses by viral hepatitis infection and region of birth, 2001-2020



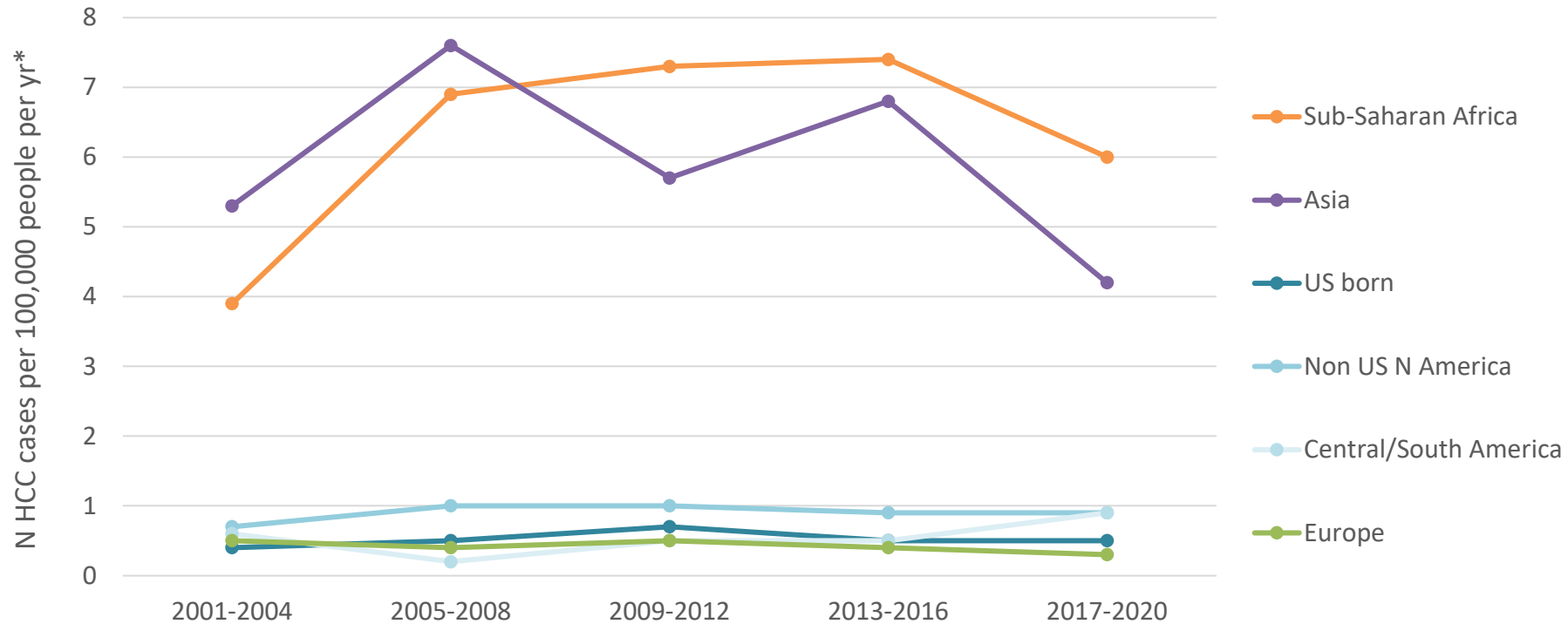
# Countries represented among Sub-Saharan African immigrants with hepatitis B and HCC, 2001-2020 (n=154)

- Top three countries represented:
  - Ghana (n=17)
  - Nigeria (n=12)
  - Guinea (n=11)
- Other countries represented (less than 7 reported cases):
  - Burkina Faso, Cameroon, Cotes d'Ivoire, Gabon, the Gambia, Mali, Mauritania, Niger, Senegal, Sierra Leone, Somalia, South Africa, Sudanese countries, Togo
- African country not specified (n=75, including 59 of non-specified West African country)

# N of HCC cases with hepatitis B was highest among Asian immigrants

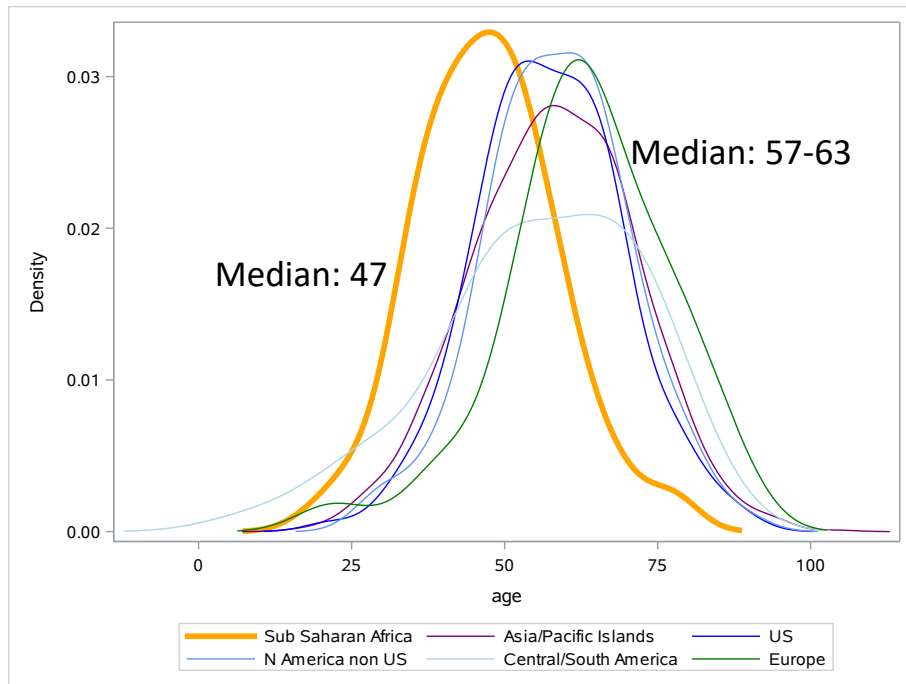


# ...but the rate of HCC cases with hepatitis B was highest among Sub-Saharan African immigrants in recent years

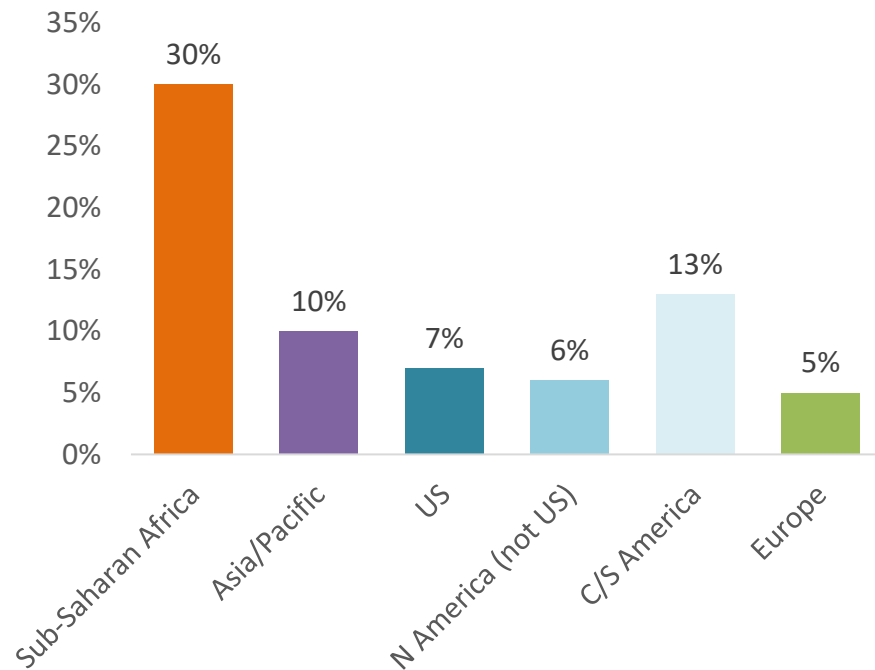


# Sub-Saharan African immigrants with hepatitis B are diagnosed with HCC at younger ages

## Age distribution at HCC by region of birth

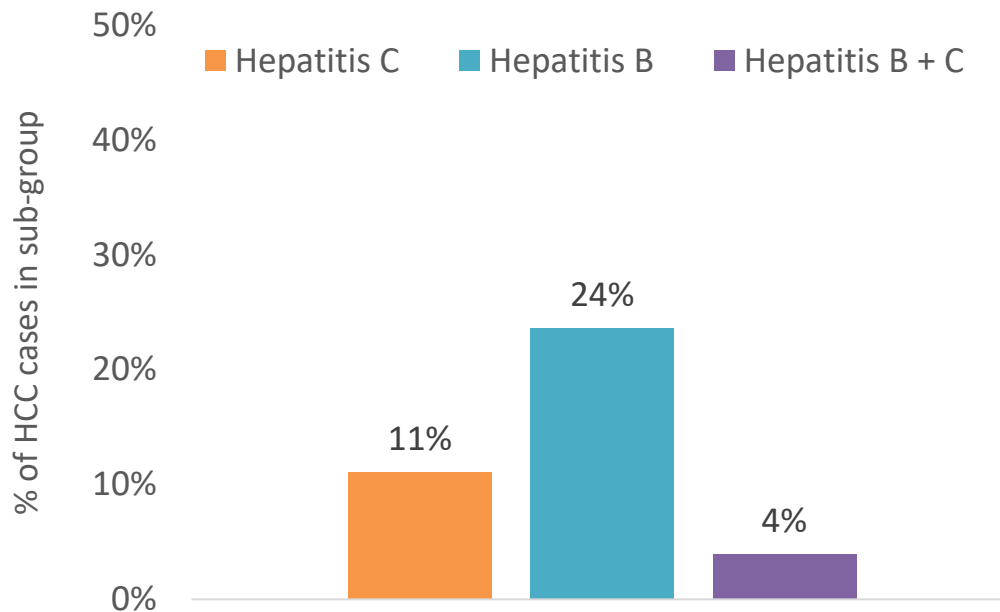


## Age <40 yrs at HCC diagnosis by region of birth



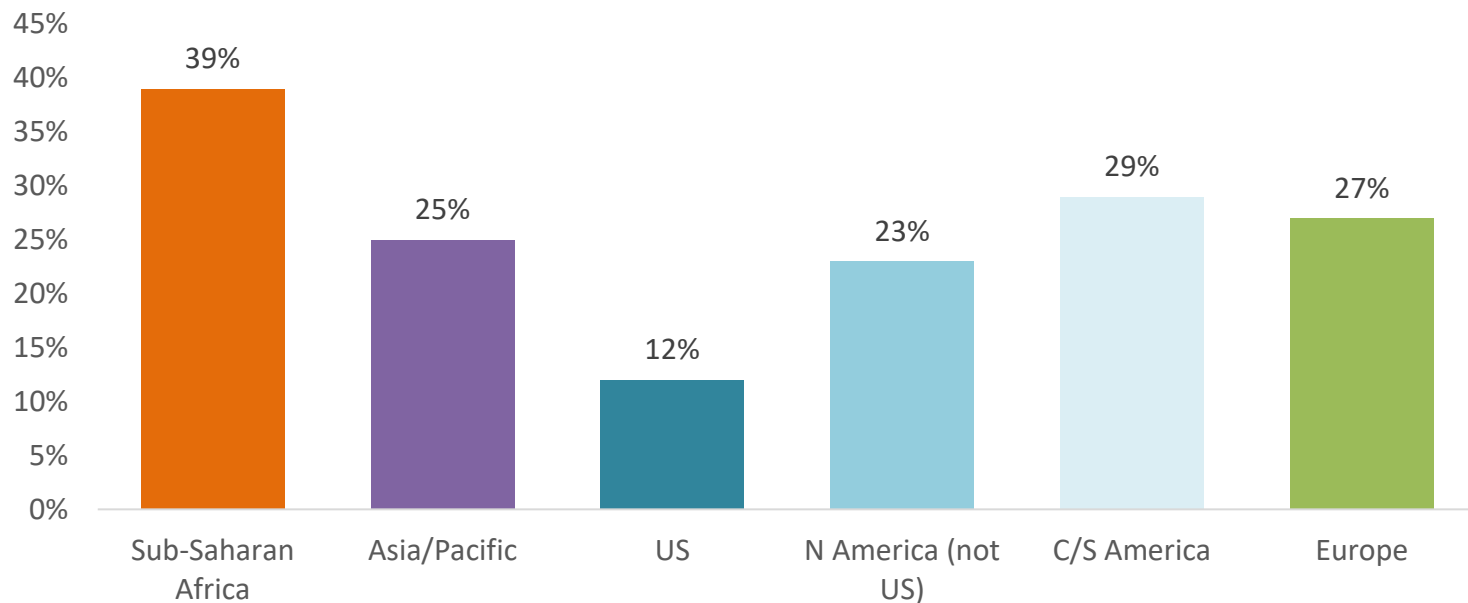
# People with hepatitis B and HCC are more likely to have viral hepatitis diagnosed at the same time as HCC

## % of HCC cases diagnosed with viral hepatitis at same time as HCC

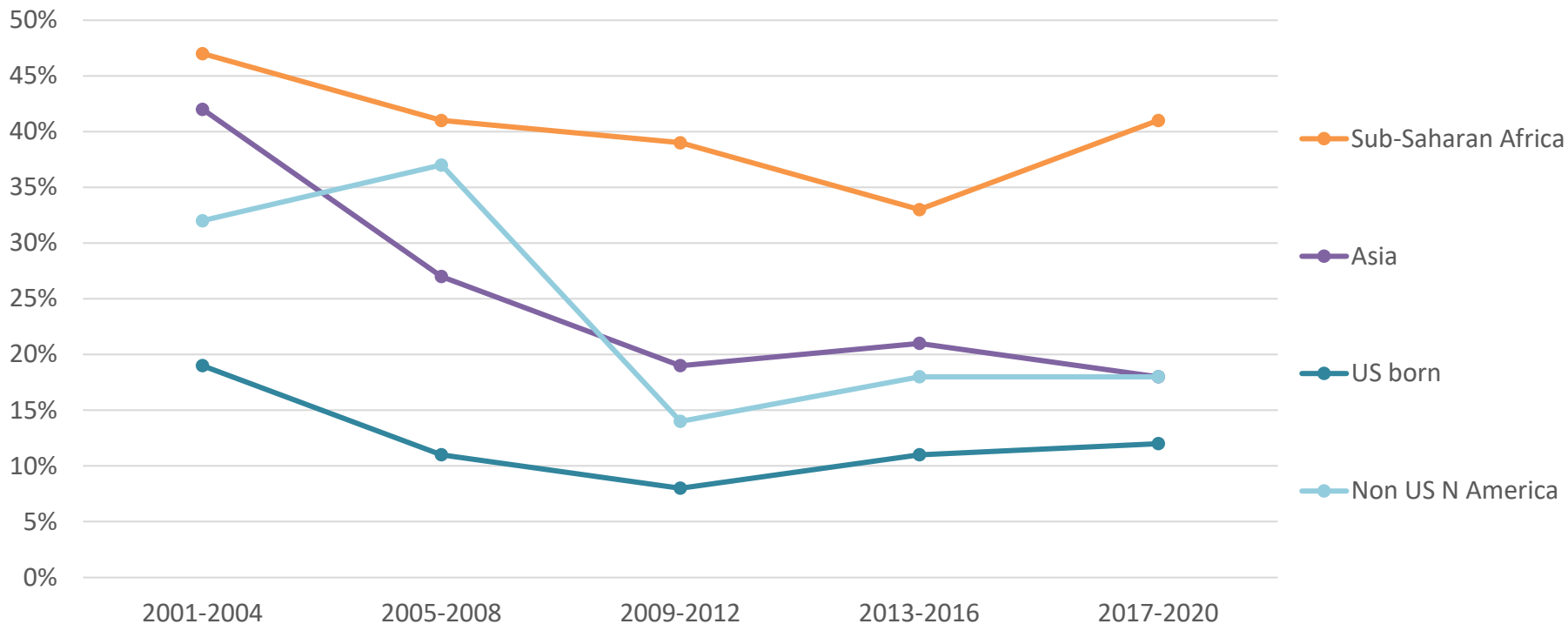


# Concurrent diagnosis of hepatitis B and HCC was more common among all non-US born groups

% HCC cases with hepatitis B where hepatitis diagnosed at the same time as HCC



# Concurrent diagnosis of HCC and hepatitis B is going down for some groups, but less so for Sub-Saharan African immigrants





# Some things to keep in mind...

- Analysis based on surveillance data from the NYC DOHMH viral hepatitis registry and NY cancer registry
  - Do not have information on behavioral and clinical factors, or diagnoses that may have occurred before arrival in NYC
- Country of birth information only available in cancer registry, not viral hepatitis surveillance registry
  - Cannot estimate HCC risk among people with Hepatitis B by region of birth
- Substantial amount of missing data for region of birth for HCC cases

# Conclusions

- Though they account for 6% of HCC cases with HBV, Sub-Saharan African immigrants had the **highest rate of HCC** in the presence of HBV infection
- In NYC, Sub-Saharan African immigrants with hepatitis B and HCC had a **4 times higher likelihood of being diagnosed with HCC at age <40** compared to US born
  - Supports earlier HCC screening for African-born/North American Blacks with hepatitis B
- Sub-Saharan African immigrants had the highest likelihood of being **diagnosed with hepatitis B and HCC at the same time**
  - Represent missed opportunities to screen and diagnosis people for Hepatitis B, link them to care, and potentially prevent HCC
  - Rates of concurrent diagnosis of HCC and HBV have declined at a faster rate for other groups, indicating there is still work to improve HBV screening



# Contact Information

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