

# Testing Asian Americans and Pacific Islanders for Hepatitis B

## Rationale

Studies have shown that while Asian Americans and Pacific Islanders (AAPI) represent 5% of the total U.S. population, they make up 50% of hepatitis B cases. Nearly 2 in 3 people living with chronic hepatitis B do not know they are infected. Testing for chronic hepatitis B plays an important role in the detection, classification, management and medical care for patients with hepatitis B.

## Who should be tested for Hepatitis B with an HBsAg\* test?

### Patients born in:

- Any Asian country
- Any Pacific island
- Other countries with moderate to high rates of hepatitis B (see map)

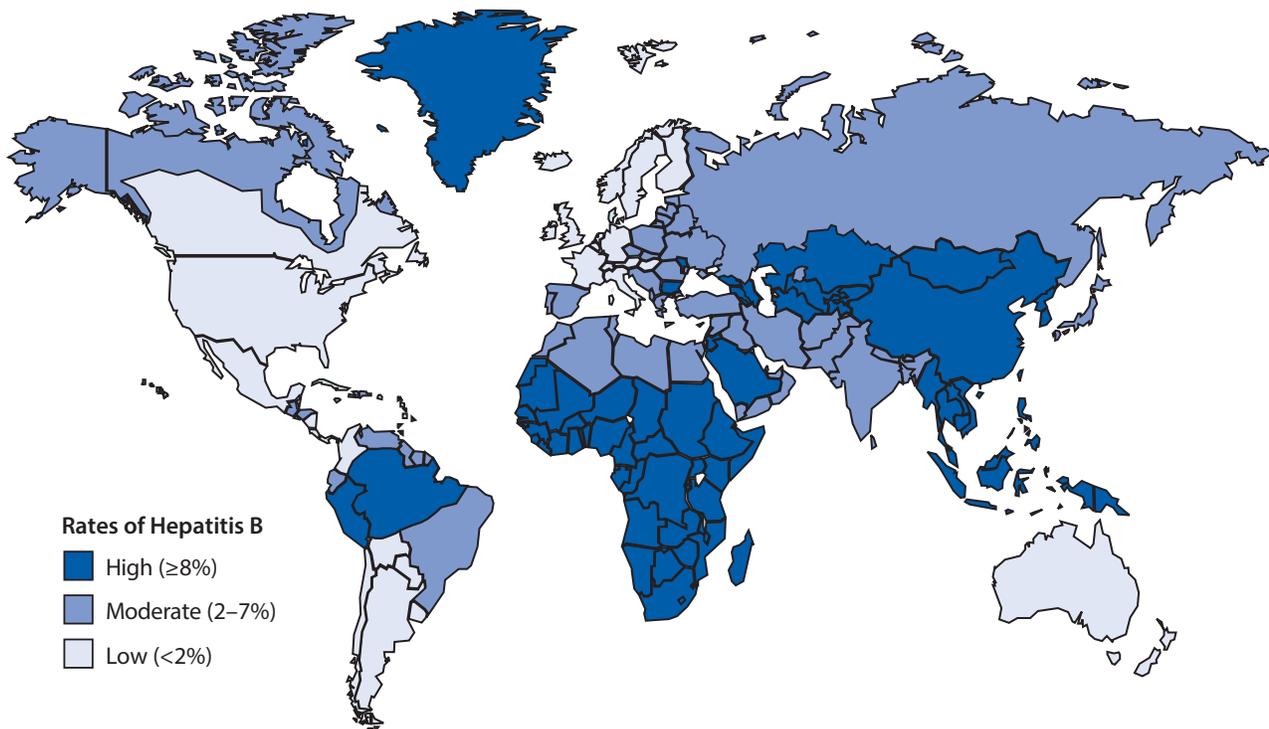
### Patients<sup>†</sup> with at least one parent born in:

- Any East or Southeast Asian countries, except Japan
- Any Pacific island
- Other countries with high rates of hepatitis B (see map)

\*Hepatitis B surface antigen

<sup>†</sup>Born in the US but not vaccinated at birth

## Geographic Distribution of Chronic Hepatitis B Infection Worldwide (As measured with HBsAg, 2006)



Source: CDC Recommendations for Identification and Public Health Management of Persons with Chronic Hepatitis B Virus Infection. MMWR Sept 19, 2008; 57 (No. RR-8): 1-20. <http://www.cdc.gov/mmwr/pdf/rr/rr5708.pdf>



**U.S. Department of Health and Human Services**  
Centers for Disease Control and Prevention

Continued on next page

## Recommended follow-up for a positive HBsAg

- Order additional tests to determine acute or chronic infection
- Consult with or refer to a specialist for medical management of chronically infected patients as appropriate
- Screen all close family members, household contacts and sexual partners for hepatitis B with HBsAg and anti-HBc or anti-HBs
  - Vaccinate those who are susceptible (negative for HBsAg, negative for anti-HBc, and negative for anti-HBs)

### Interpretation of Serologic Tests

Tests	Results	Interpretation
<b>HBsAg</b>	Positive	Currently infected with the hepatitis B virus. Follow up with IgM anti-HBc to determine if chronically infected
<b>HBsAg</b> <b>anti-HBc</b> <b>IgM anti-HBc</b> <b>anti-HBs</b>	Positive Positive Positive Negative	Acute infection with the hepatitis B virus
<b>HBsAg</b> <b>anti-HBc</b> <b>IgM anti-HBc</b> <b>anti-HBs</b>	Positive Positive Negative Negative	Chronic infection with the hepatitis B virus
<b>HBsAg</b> <b>anti-HBc</b> <b>anti-HBs</b>	Negative Negative Negative	Susceptible (consider for vaccination)
<b>HBsAg</b> <b>anti-HBc</b> <b>anti-HBs</b>	Negative Positive Positive	Immune by natural infection
<b>HBsAg</b> <b>anti-HBc</b> <b>anti-HBs</b>	Negative Negative Positive	Immune by hepatitis B vaccination
<b>HBsAg</b> <b>Anti-HBc</b> <b>Anti-HBs</b>	Negative Positive Negative	Interpretation unclear; four possibilities: 1. Resolved infection (most common) 2. False-positive anti-HBc, thus susceptible 3. "Low level" chronic infection 4. Resolving acute infection

### Serologic Marker Definitions

**Hepatitis B surface antigen (HBsAg):** Can be detected in high levels in serum during acute or chronic hepatitis B virus infection. Its presence indicates a person is infectious.

**Hepatitis B surface antibody (anti-HBs):** Presence is generally interpreted as indicating recovery and immunity from hepatitis B virus infection. It also develops in people successfully vaccinated against hepatitis B.

**Total hepatitis B core antibody (anti-HBc):** Appears at the onset of symptoms in acute hepatitis B and persists for life in most people. Its presence indicates previous or ongoing infection with hepatitis B virus in an undefined time frame.

**IgM antibody to hepatitis B core antigen (IgM anti-HBc):** Positive test indicates recent or acute infection with hepatitis B (within 6 months).