Hepatitis B and Correctional Environments

- Inmates at increased risk for Hepatitis B virus (HBV) infection
- Risk is associated with high-risk drug and sex practices before incarceration
- Incidence of new infections (1–1.5 percent) is 10 times higher than in the general U.S. population
Epidemiology of Hepatitis B in Correctional Settings

- Risk for HBV transmission during incarceration is low
  - Related to behaviors?
    - Injection drug use?
    - Men having sex with men?
    - Tattooing?
    - Fights?
- Risk is as high or higher than for groups recommended for vaccine for occupational reasons
  - Health care workers (1–6 percent/year)
  - Correctional officers (1–2 percent/year)
  - Incarcerated individuals (1–1.5 percent/year)

Strategy to Eliminate HBV Transmission in United States

- Comprehensive plan proposed in 1991 by the Advisory Committee on Immunization Practices (ACIP)
  - 4 components, including high-risk adolescents and adults
  - Surveys find low coverage in high-risk groups
- Identify settings where high-risk individuals can be vaccinated
  - Criminal justice system?
Missed Opportunities for Hepatitis B Vaccination

- Sentinel counties
  - Of acute cases, 20 percent had been incarcerated
  - 18 percent had household or sexual contact with case
- National Survey of Injection Drug Users (IDUs), 45 cities
  - Between 1987 and 1989
  - 17,000 IDUs identified
  - 81 percent report jail or prison

Issues Related to Hepatitis B Vaccine Programs

- Vaccination schedules
  - Altered schedules
  - Value of 1, 2, or 3 doses
- Prevaccination testing for susceptibility
  - Greater than 30 percent prevalence
  - Consequences of test results
- Postvaccination testing serologic response
  - Not recommended
- Prevention of perinatal HBV transmission from female inmates to their infants
Hepatitis B Vaccine Seroconversion Rates
(≥10mIU/mL)

After 1 dose
20–50 percent

After 2 doses
85 percent

After 3 doses
Greater than 95 percent

Recommendations—I

• Implement hepatitis B vaccination programs in all correctional facilities
• Make efforts to achieve compliance with the 3-dose vaccine series
• Consider prevaccination screening in populations with an expected prevalence greater than 30 percent
• Integrate with other STD/HIV prevention programs
Recommendations—II

- Need programs to prevent perinatal transmission
- Need close cooperation between public health and criminal justice agencies to develop and implement hepatitis B vaccination programs
  - Staff training
  - Drug treatment centers
  - Followup of released prisoners
    * Treatment or vaccine series completion

Future Needs—Collaborations

- Algorithm for cost analysis
  - Cost associations
- *Healthy People 2010*—Section 2213.6B
  - Hepatitis B vaccine among inmates
    * No baseline data
    * Does a mechanism exist (periodic survey)?