

HIV and Hepatitis Co-Infection Unmet Need

To strengthen the ability to prevent and treat co-infection, resources are needed for programs that address HIV, hepatitis B virus (HBV) and hepatitis C virus (HCV). Additional federal funds are needed to:

- Support state public health HIV and hepatitis prevention programs funded through CDC, including vaccination for hepatitis A and B;
- Support care of individuals that are co-infected with HIV and HBV or HCV; and
- Support treatment for the co-infected through the state AIDS Drug Assistance Programs (ADAPs) to increase availability of hepatitis B and C drugs on formularies and to cover hepatitis A and B vaccines.

CO-INFECTION UNMET NEED

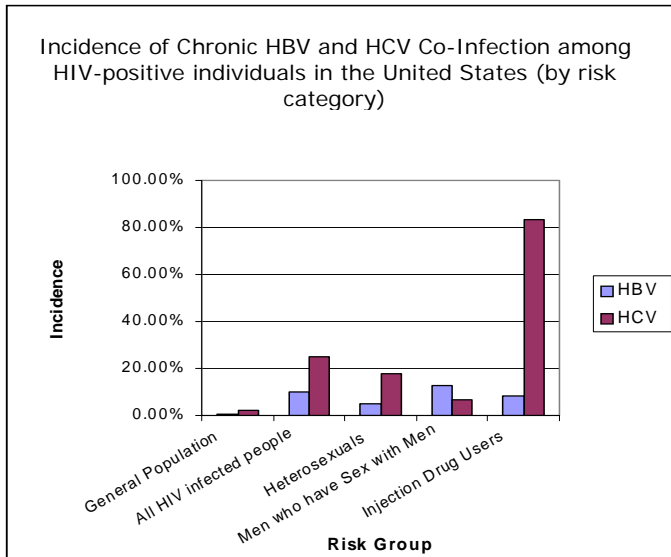
- Up to 10 percent of HIV positive individuals are co-infected with hepatitis B virus¹ and one-third are co-infected with hepatitis C virus.²
- Complications resulting from hepatitis C are a leading cause of death for people with HIV/AIDS.³
- There is no federal funding to provide core public health services for viral hepatitis including hepatitis B and C counseling, testing, and medical referral.
- States receive on average \$90,000 for adult hepatitis prevention which provides for little more than a position in the health department.
- There is no dedicated funding stream to vaccinate adults; to eliminate hepatitis A and B an investment in vaccination of high risk adults is essential.
- There is no dedicated federal funding for care and treatment for the hepatitis mono-infected; for the co-infected, the Ryan White Program has been underfunded for years making it ill-equipped to deal with this burgeoning client population.

QUICK FACTS ABOUT HIV, HEPATITIS B AND HEPATITIS C			
	HIV	HBV	HCV
What is it?	The human immunodeficiency virus (HIV) is the virus that causes AIDS	The hepatitis B virus is a viral infection that attacks the cells of the liver	The hepatitis C virus attacks the liver, similar to HBV, but is more likely than HBV to cause chronic infection
How is it transmitted?	When infected blood, semen or vaginal secretions enter the body of an uninfected person	When infected blood, semen or vaginal secretions enter the body of an uninfected person	HCV is transmitted by direct contact with infected blood
How is it spread?	Unprotected sex, sharing needles, perinatally	Unprotected sex, sharing needles, needlesticks/ sharps exposure, perinatally	Sharing needles, needlesticks/ sharps exposure, perinatally (the blood supply has been screened since 1992)
What happens?	HIV attacks the immune system, affecting its ability to fight off infections and cancer	Most HBV infections are cleared, if not, chronic HBV may develop and lead to liver failure, liver cancer or cirrhosis	Most persons infected develop chronic HCV, which can lead to liver disease. HCV is the number one reason for liver transplants
What treatment is available?	Drug treatments are available to slow the progression to AIDS and to treat associated infections	Antiviral drugs are available to slow the reproduction of HBV	Antiviral drugs are available to treat chronic HCV infection. Some patients clear the virus
Is there a vaccine?	No	Yes	No
Is there a cure?	No	No	Yes/No. Over 50 percent that are treated clear the virus

HIV & Hepatitis Co-infection

POPULATIONS AT RISK

Persons at risk of HIV infection significantly overlap with those at risk for HBV or HCV due to the ways in which these viruses are transmitted. In developed nations, HBV and HIV infections are most frequently acquired through sexual exposure or injection drug use; while HCV/HIV co-infection is primarily acquired through injection drug use.



Source: Alter, MJ. (2006). Epidemiology of viral hepatitis and HIV co-infection. *Journal of Hepatology* 44: S6-S9.

VACCINATION

Because of the complications due to co-infection, adults at risk for HIV and hepatitis C should be vaccinated for the hepatitis A and B viruses. High risk adults account for more than 75 percent of all new cases of HBV infection each year.⁴ Despite the CDC's recommendations to vaccinate high risk adults and the cost effectiveness of vaccination, actual vaccination rates remain modest, and persons living with HIV remain unvaccinated and susceptible to disease. One study observed HIV positive patients in care for a three year period, and found a prevalence of chronic HBV infection of 7.6 percent compared to 0.4 percent in the general population.⁵

In FY2007, CDC's Immunization Services Division allowed states to use \$20 million of 317 Vaccine funds to vaccinate high risk adults for hepatitis B. States are integrating vaccination into service programs for persons with risk factors for co-infection (e.g., STD clinics, HIV counseling and testing sites, correctional facilities and drug treatment clinics). By targeting high-risk adults for vaccination, the gap between children and adults who have not benefited from routine childhood immunization programs can be bridged.

THE RYAN WHITE PROGRAM AND CO-INFECTION

The Ryan White Program provides care, treatment and support services to people living with HIV/AIDS. The program is administered through the Health Resources and Services Administration's HIV/AIDS Bureau (HAB). The Ryan White Program can provide services to those that are co-infected, although there are challenges in terms of sufficient provider knowledge and patient education. The Ryan White Program's AIDS Drug Assistance Program (ADAP), which is administered by the states, provides access to HIV-related medications, including⁶:

- HCV treatments: covered by **22** states.
- HBV treatments: covered by **52** states; of those **12** report covering three or more HBV drugs.
- Hepatitis A and hepatitis B vaccines: covered by **28** states.
- HCV diagnostics (screening, qualitative and HCV RNA, CV genotypic tests): covered by **5** states.

Ryan White grantees require assistance in addressing the complex needs of co-infected clients. HAB should focus on increasing the capacity of Ryan White grantees to deliver medical management, treatment, and support services for clients co-infected with HIV and HBV and HCV by implementing training and technical assistance initiatives, so that Ryan White funded programs are able to increase HBV and HCV education, testing, medical management, case management, and treatment uptake to meet the needs of their respective communities.

REFERENCES

- ¹ Soriano, V. (2005). Care of patients with chronic hepatitis B and HIV co-infection: recommendations from an HIV-HBV international panel. *AIDS*, 19(3): 221-240.
- ² Centers for Disease Control and Prevention. (1998). Recommendations for Prevention and Control of Hepatitis C Virus (HCV) Infection and HCV-related Chronic Disease. *MMWR*. 47(No.Rr-19):1-39.
- ³ Bica I, McGovern B, Dhar R, et al. Increasing mortality due to end-stage liver disease in patients with human immunodeficiency virus infection. *Clin Infect Dis*. 2001;33(10):1795-7.
- ⁴ Goldstein, ST, Alter, MJ, Williams, IT, Moyer, LA, Judson, FN, Margolis, HS. (2002) Incidence and risk factors for acute hepatitis B in the U.S., 1982-1998: implications for vaccination programs. *J Infect Dis*.185:713-9.
- ⁵ Kellerman, SE., Hanson, D., McNaghten, AD, Fleming, P. (2003). Prevalence of Chronic Hepatitis B and Incidence of Acute Hepatitis B Infection in Human Immunodeficiency Virus-Infected Subjects. *Journal of Infectious Disease* 188: 571-577.
- ⁶ Kaiser Family Foundation & NASTAD, *National ADAP Monitoring Project Annual Report*, April 2008.