

viral hepatitis & injection drug users

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As with HIV, identifying HCV-infected individuals provides opportunities to improve their health. HCV-infected IDUs can be offered drug treatment and encouraged to take steps that can delay the onset of disease. For those who continue to use drugs, they can be taught to inject more safely and reduce the possibility of infecting others. Because of the HIV/HCV overlap, integrating prevention efforts is an obvious strategy for reaching at-risk individuals. However, many HIV prevention programs have yet to incorporate hepatitis prevention messages into their overall education efforts. Fewer programs offer screening for hepatitis and referral to hepatitis-related services. While resources for hepatitis services are extremely limited, it is possible to provide services through integration with HIV, STD or substance abuse prevention and treatment programs by building on their existing ties with at-risk populations.



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Viral Hepatitis and Injection Drug Users

More than two decades into the HIV/AIDS epidemic, there are few Americans who are not aware of the severity of this public health problem and cannot identify the major risk behaviors associated with HIV--unprotected sex and injection drug use. Fewer Americans are aware of the threat of viral hepatitis, even though viral hepatitis affects millions, can cause serious illness, and overlaps with the HIV/AIDS epidemic.

Due to similar transmission routes, many of the populations at risk for HIV are also at risk for viral hepatitis. For both HIV and viral hepatitis, injection drug users (IDUs) are an important target population. One-third of all cases of AIDS are directly or indirectly attributed to injection drug use, and approximately 60 percent of persons infected with hepatitis C virus (HCV) report injection drug use as the risk.

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This report is designed to provide information on a variety of topics related to viral hepatitis and IDUs, with the intention of promoting an understanding of the issues related to serving this at-risk population. Included in the report is:

- Information on injection drug use, viral hepatitis and HIV and the relationship between these conditions;
- Interventions available for IDUs, such as drug treatment, outreach, and syringe availability, that provide an opportunity to integrate hepatitis-related services;
- Strategies for preventing blood-borne infections in IDUs that can be incorporated into programs targeting this population;
- Services for IDUs infected with hepatitis B virus (HBV) and HCV (beyond clinical care); and
- Profiles of successful integration efforts.

**DEFINING THE CHALLENGE:
INJECTION DRUG USE, VIRAL HEPATITIS
AND HIV**

Injection Drug Use

While it is difficult to identify the actual number of injection drug users (IDUs), primarily because of the illegal nature of this activity, there are an estimated 1 million active users of injection drugs in the United States. In addition to heroin, cocaine and amphetamines are also injected by drug users.

During the 1990s, heroin use increased after declining for many years. However, recent research suggests that more heroin users are smoking or sniffing the drug instead

GENERAL Health Issues for IDUs

In addition to blood-borne infections, there are myriad health problems associated with injection drug use. These can occur as a result of a single drug-using episode, such as an overdose, or from the cumulative effects of drug use.

Overdose can occur when too much of the drug is taken and it overwhelms the body, effecting the brain, lungs, heart, liver, and kidneys. Overdoses can result in death. The drug Naloxone (also known as Narcan), which reverses the effect of an opiate, can revive people who have overdosed on heroin. Some advocates for drug users support making it available without a prescription so drug users have access to it when necessary. Organizations serving drug users also work to educate them about overdose prevention and how to help someone who has overdosed, such as through the provision of CPR and other measures. However, fear of legal consequences can prevent people from seeking help in the event of an overdose.

Injection-related wounds and infections can occur, even with efforts to inject in a safe manner. Abscesses are common, and in rare occasions can result in sepsis, endocarditis, amputation or death. Other infections, such as necrotizing soft tissue infection (also known as flesh eating bacteria), wound botulism, and wound tetanus can occur.

IDUs should be educated about and encouraged to use safer injection techniques. In addition, they should learn danger signs associated with these health issues and know when to seek care. Adopting safer ingestion methods, such as snorting or smoking, can prevent these injection-associated conditions.

of injecting. The purity of heroin now available on the street makes smoking and sniffing an attractive alternative for users.

It is estimated that each year 13 to 16 million Americans could benefit from substance abuse treatment (both alcohol and drug treatment). Unfortunately, only 3 million receive treatment each year. Those in need of treatment are a highly diverse population, necessitating a wide variety of approaches tailored to various needs. No single approach is appropriate.

Those seeking treatment encounter many barriers. These include lack of access to treatment locations (no transportation), lack of knowledge about available treatment, inability to pay for treatment, cumbersome enrollment processes, and waiting lists. The decision to seek treatment on the part of a drug user may signify the start of a long, arduous process.

While injectors are the primary target of interventions designed to prevent the transmission of blood-borne infections, it is also important to target prevention efforts to drug users who are not yet injecting. Some research indicates that use of non-injected drugs, especially when initiated at an early age, can lead to the use of other drugs. Preventing at-risk

youth from initiating drug use, or providing drug treatment to young people already using drugs, can prevent them from progressing to more serious drugs, including those that are injected.

Viral Hepatitis

Viral hepatitis is the name collectively used for liver infections caused by five major recognized types of

hepatitis viruses (A, B, C, D, and E). These viruses – known respectively as HAV, HBV, HCV, HDV, and HEV – may cause acute illness, as well as chronic infection, posing the risk of long-term, negative health outcomes including cirrhosis, liver failure, and liver cancer.

- HAV is transmitted through fecal-oral contact with an infected person, causes acute infection only, and is vaccine preventable. In 2001 there were an estimated 93,000 total HAV infections. Typically, about half of all infections are symptomatic and about 100 cases lead to death.

HIV

HIV is at the forefront of the public's consciousness when it comes to discussions about risks associated with injection drug use. As of December 2001, there were 506,154 people reported living with HIV/AIDS in the U.S. The cumulative number of AIDS cases reported to CDC as of December 2001 is 816,149, of which 467,910 have died. Adult and adolescent AIDS cases total 807,075 with 666,026 cases in males and 141,048 cases in females. Through the same time period, 9,074 AIDS cases were reported in children under age 13.

In the U.S., over one-third of AIDS cases are directly or indirectly related to injection drug use, including sex with a drug user or perinatally through an infected mother with either a history of drug use or sex with a drug user. IDU-related HIV/AIDS remains disproportionately high among African American, Native American/Alaskan Native, and Hispanic men compared to white men.

- HBV is transmitted through contact with the blood or body fluids of an infected person and can result in chronic infection. About 6 percent of persons infected with HBV over the age of 5 years develop chronic infection. It is estimated that 1 to 1.25 million Americans have chronic HBV infection, slightly less than .5 percent of the U.S. population, and there were an estimated 78,000 new HBV infections in 2001. There is a vaccine available to prevent HBV infection.

- HCV is transmitted largely through contact with the blood of an infected person and 75 to 85 percent of those infected develop chronic infection. An estimated 2.7 million Americans are chronically infected with HCV and, in 2001, there were approximately 25,000 new cases. Liver disease develops among 70 percent of those chronically infected with HCV, leading to cirrhosis in about 15 percent (developed over 20 to 30 years) and death among 5 percent – some 8,000 to 10,000 deaths annually. Chronic HCV infection is a leading indicator for liver transplantation. There is no vaccine for HCV.

- HDV is a defective virus that requires the helper function of HBV to replicate. HDV may occur either as a co-infection (being transmitted at the same time

Outcome	HAV	HBV	HCV	HIV	STD*
Chronic Infections	n/a	~1.25 million	~2.7 million	~0.8 million	n/a
New Infections/yr	~93,000	~78,000	~25,000	~40,000	~1.1 million
Deaths/yr	100	5,000	8,000	18,000	

TABLE 1 Estimated Disease Burden of HAV, HBV, HCV, HIV Infections and other STDs in the U.S. in 2001.

*Chlamydia (255/100,000 population) and gonorrhea (150/100,000) in 2000

Source Centers for Disease Control and Prevention

as HBV) or as a super-infection (being transmitted to a person who already has chronic HBV infection). HDV is transmitted in many of the same ways as HBV, although it appears rarely to be transmitted from mother to baby. Vaccination against HBV is the best prevention for HDV infection. Persons who are chronically infected with HBV must continue to practice HBV preventive-behaviors in order to reduce their risk of HDV infection.

- HEV is transmitted through water contaminated with fecal matter. It is rare in the U.S., occurring among some travelers newly returned from areas where HEV is endemic, particularly Mexico, parts of Africa, China, and other parts of Central, South and East Asia. The best way to avoid HEV is by drinking only bottled water and not eating uncooked food when visiting affected regions.

Hepatitis and HIV in Injection Drug Users

In 2000, an estimated 60 percent of the new cases of HCV infection and 17 percent of the new cases of HBV infection occurred in drug users. HBV and HCV are transmitted very efficiently through blood exposure and infection occurs more rapidly than with some other blood-borne viruses, including HIV. Within five years of initiating injection drug use, 50 to 70 percent of IDUs will be infected with HBV and 50 to 80 percent will be infected with HCV. Because HIV, HBV and HCV are all transmitted through contact with an infected person's blood, IDUs are highly susceptible. An estimated 50 to 90 percent of persons infected with HIV through IDU are also infected with HCV. No studies have yet described the prevalence of HBV infection in a nationally representative HIV patient cohort.

Research indicates that co-infection with HIV and HCV results in higher levels of HCV in the blood, more rapid progression to HCV-related liver disease, and increased

What is Addictphobia?

There is a profound stigma attached to illegal drug use--and injection drug use in particular. This stigma affects how people perceive drug users as individuals and how society addresses the challenges presented by drug addiction. At the 1999 National HIV Prevention Conference, T. Stephen Jones, MD, of CDC's Division of HIV/AIDS Prevention, and Terje Anderson, Executive Director of the National Association of People With AIDS, presented the concept of "junkiephobia" or "addictphobia." The terms describe the "complex of stereotypes, stigmas, and negative attitudes" that affect how the public, policymakers, health care professionals, and drug users themselves view those who are addicted to drugs. These attitudes influence public policy and society's sympathies, deterring the implementation of interventions needed to prevent hepatitis and HIV and limiting resources needed to increase access to drug treatment. Four negative stereotypes associated with drug users were identified:

- Drug users are believed to be criminals and their addiction represents a moral failing that should be punished rather than treated;
- Drug users are unwilling or unable to change their risk behaviors;
- Drug users are unreliable participants in clinical trials; and
- Drug users are unable to adhere to complicated treatment regimens.

Professionals working with drug users are not immune to these negative attitudes and drug users may not receive the same care as those not using drugs. For example, the 1997 NIH Consensus Statement on the Management of Hepatitis C (HCV) recommended that persons who use illicit drugs should not be treated for HCV until they have abstained from drug use for a minimum of six months. After criticism from researchers, medical providers, and advocates, the guidelines were revised in 2002 and now recommend that treatment decisions be made on a case by case basis.

risk for cirrhosis and liver cancer. HCV is considered an opportunistic infection in people with HIV infection, but it is not an AIDS-defining illness. The effects of HCV on HIV are less well understood. Some research suggests that infection with certain genotypes of HCV, genotype 1 in particular, is associated with more rapid progression to AIDS or death. There is also some evidence to suggest that HCV is associated with impaired CD4+ T cell recovery during antiretroviral therapy. The impact of HBV on HIV infection is unclear.

Treatment for both HCV and HIV infection is complicated, expensive, and has side effects, which can affect the quality of life of individuals who are co-infected. Traditionally, HIV and hepatitis have been treated by physicians representing different medical specialties. The complexities of both diseases demand that infectious disease physicians and hepatologists work together to treat those who are co-infected. Clinics, jointly managed by an HIV specialist and hepatologist and supported by substance abuse and other mental health providers, may be the most effective response.

Providing medical care to IDUs can be a challenge. There are additional conditions, such as mental illness, ongoing substance use and alcoholism, which affect this population. In addition, many IDUs have unstable living situations. Finally, IDUs, in part due to the stigma associated with the use of illegal drugs, are a highly marginalized population and may have little contact with, and strong suspicion of, health care providers. This can affect their willingness to seek treatment and their adherence to treatment once they enter care.

Understanding Addiction

To effectively reach IDUs with hepatitis and HIV prevention efforts, it is necessary to understand the context in which they live and the nature of addiction. In the U.S., addiction has traditionally been viewed as a moral failing or weakness. However, research indicates that addiction is a brain disease and that repeated drug use over time changes the structure and function of the brain. These changes remain long after the individual stops using drugs. While these biological changes are significant, they are not the sole cause of addiction. There is also a behavioral aspect to addiction. Individuals may find drug use to be a pleasurable experience and repeat use until addiction occurs. Or, they may suffer from a co-occurring mental illness, as do approximately half of all drug users. In the case of co-occurring mental illness, the use of drugs may be an attempt to self-medicate.

Research conducted by the National Institute on Drug Abuse (NIDA) indicates that drug abuse is preventable, in that it begins as a voluntary behavior, and drug addiction is a treatable disease. While it is treatable, successful treatment can be a challenge. Misconceptions about drug treatment abound. For example, many believe that drug users can stop using drugs on their own, without treatment, and that most drug users can become permanently drug-free. These viewpoints are often based on the perception that ongoing drug use is voluntary on the part of an addict and that an addict's inability to overcome addiction stems from a lack of willpower. Drug addiction is a chronic, recurring, illness and relapses after treatment are normal.

Because of the powerful biological and behavioral dimensions of addiction, most IDUs cannot quit on their own. Drug treatment can provide the medical, psychological, and behavioral support that drug users need to overcome their addiction. However, for most drug users, treatment is a long-term process involving multiple interventions and attempts at abstinence. This is not to say that drug users are less successful in their effort to get healthy than people suffering from other conditions. Drug treatment is as effective as treatment for other chronic conditions, including diabetes, hypertension, and asthma.

Key Elements of Successful Treatment

- Readily available
- Provided for an adequate length of time
- Multiple treatment episodes as required
- Takes co-morbidities into consideration
- Tailored to individual characteristics and needs
- Periodic adjustments to treatment approach as needed

INTERVENTIONS AVAILABLE FOR IDUS

The various services targeting IDUs that are currently carried out provide an opportunity to integrate hepatitis prevention messages and services. Many of the services described below offer a “point of access” to IDUs. IDUs are known as a “hard-to-reach” population. Taking advantage of any contact with IDUs to impart necessary health promotion messages is considered an effective approach to engaging this population in health care. For example, when approached by an HIV prevention outreach worker, an IDU may be primarily interested in drug treatment. If that outreach worker can refer the IDU to drug treatment, this first step may lead to the IDU receiving HIV counseling and testing, and if positive, HIV care. This same integration process can be applied to hepatitis services.

Substance Abuse Treatment

Comprehensive and ongoing substance abuse treatment can help a person who is addicted to reduce or stop using drugs. Substance abuse treatment is conducted in a variety of settings, such as inpatient, outpatient, or residential, and often involves multiple approaches, including behavioral therapy, medications, or a combination of both. In addition, some comprehensive programs also work to meet the wider needs of their clients and offer referral to other services. There are also specialized programs designed to address the needs of specific populations such as women with children, young people, incarcerated individuals, or gay men and lesbians.

Medication-Assisted Treatment

Medication-assisted treatment (MAT) is a form of treatment where opiate-dependent patients receive medication to block the effects of opiates. There are four medications used to treat opiate addiction: Levo-alpha-acetylmethadol (LAAM), naltrexone, buprenorphine, and methadone. Methadone, the most commonly used medication, is a synthetic opiate that prevents withdrawal symptoms, decreases cravings, and blocks the euphoric effects of opiates. It is usually administered once per day. Methadone maintenance treatment (MMT) has been used for over 30 years as an effective medication-assisted treatment for opiate addiction. Research has found that MMT reduces

HARM REDUCTION AND DRUG USE

Harm reduction is a concept that recognizes abstinence as the optimal outcome while promoting alternatives that reduce the harm associated with a behavior. According to the Harm Reduction Coalition, harm reduction is a set of practical strategies that reduce negative consequences of drug use, incorporating a spectrum of strategies from safer use, to managed use, to abstinence. Many of the services described in the following section embrace the concept of harm reduction to various degrees. However, there are some service providers that do not support this concept. These providers tend to view drug treatment focusing on abstinence as the only appropriate service for drug users.

The Harm Reduction Coalition has identified the following key principles relating to harm reduction.

- Licit and illicit drug use is a reality and efforts should be made to minimize the harmful effects of drug use rather than to ignore or condemn them.
- Drug use is a complex, multi-faceted phenomenon that encompasses a continuum of behaviors from severe abuse to total abstinence, and some ways of using drugs are safer.
- Quality of individual and community life and well-being--not necessarily cessation of all drug use--are the criteria for successful interventions and policies.
- Non-judgmental, non-coercive provision of services and resources should be provided to drug users and the communities in which they live in order to assist them in reducing related harm.
- Drug users and those with a history of drug use should routinely have a voice in the creation of programs and policies designed to serve them.
- Drug users, as the primary agents of reducing the harm of their drug use, should be empowered to share information and support each other in strategies that meet their actual conditions of use.
- The realities of poverty, class, racism, social isolation, past trauma, sex-based discrimination and other social inequalities affect both people's vulnerability to and capacity for effectively dealing with drug-related harm.
- The real and tragic harm and danger associated with licit and illicit drug use should not be minimized or ignored.

Harm reduction strategies should meet drug users "where they are at," addressing conditions of use along with the use itself. Harm reduction programs are characterized by the provision of client-centered, non-judgmental, and culturally appropriate services that can be easily accessed by clients. These programs emphasize client-determined goals and behavior change. Harm reduction-based interventions and policies for drug users should reflect specific individual and community needs--there is no universal definition of or formula for implementing harm reduction. Harm reduction programs in the United States carry out various services and activities, based on the needs within their communities. These include:

- Educational activities designed to promote safer injection practices and help drug users make safer choices;
- Provision of sterile syringes and paraphernalia (cookers, cotton, etc.) to allow for safer injection (some programs do not provide sterile syringes but provide bleach for the cleaning of syringes);
- Advocacy to promote policy change, such as laws that make sterile syringes more readily available;
- Links to drug treatment or other health or social services that drug users might need;
- Overdose prevention education efforts; and
- Promotion of less risky ways to administer drugs, such as snorting or smoking heroin instead of injecting it.

More information on harm reduction is available from the Harm Reduction Coalition at <http://www.harmreduction.org>.

crime, improves health status, and helps opiate-dependent individuals attain productive lifestyles. It also significantly reduces the health risks associated with injection drug use.

The success of MMT may depend on the adequacy of dosage and the continuity of treatment. A minimum of one year is recommended by current National Institutes of Health guidelines and most patients require continuous treatment over many years or even life. MMT is more effective when coupled with psychiatric and counseling services, due to the high co-morbidity of addiction and mental health disorders. Until recently, methadone was only available in specially licensed clinics with strict requirements. Consequently, these clinics had little flexibility in providing individualized treatment, and patients were often not given adequate doses.

Methadone is controversial. Critics argue that MMT replaces one drug with another. There has also been a strong “not in my backyard” sentiment towards methadone clinics, driven by the fear that the clinic will bring crime and drugs to the neighborhood. The relaxing of the regulations on methadone may help reduce some of this stigma.

Buprenorphine, which became available in 2002, is also used to treat heroin and other opioid dependence. Buprenorphine is related to morphine and functions on the same brain receptors, but does not produce the same high, dependence or withdrawal syndrome. It is long-lasting and well-tolerated by addicts.

Buprenorphine is used by physicians in office-based treatment, as long as they obtain the required training and a waiver that allows them to prescribe certain controlled substances. Physicians must also refer patients to care for their social and psychological needs. This new treatment option allows patients to be treated for addictions in the same manner as they are treated for other chronic illnesses, such as diabetes or hypertension.

Outreach

Community-based outreach activities are part of a comprehensive prevention approach that includes a variety of complementary components, such as drug treatment

ATTITUDES OF HIV AND SUBSTANCE ABUSE PROVIDERS

IDUs may require a broad range of services, such as drug treatment, HIV services, and other social services (housing, legal, etc.). However, these various service providers may not have a history of working together and the professionals who provide these services vary in their training, experience, attitudes, and approaches. This has served as an impediment to the integration of the services required by IDUs, especially coordination between HIV services and drug treatment.

At the heart of these differences is the attitude of the providers toward ongoing drug use and abstinence. Most substance abuse treatment models focus exclusively on abstinence as the only acceptable short- and long-term treatment outcome. Individuals in treatment programs who continue to use drugs are often required to leave the program. In contrast, HIV service providers tend to take an approach of treating the individual “where they are at” and may prioritize health care and other services such as housing, above drug treatment. HIV service providers work very hard to avoid “losing a patient to care” and case managers go to great lengths to continually engage clients, whether they are using drugs or not. Also, HIV risk reduction messages that emphasize safer injection practices may seem to be contradictory to drug treatment providers and appear to undermine their efforts. Providers who seek to integrate HIV prevention into drug treatment, or link HIV care to drug treatment need to reconcile these conflicts.

While this conflict has become less of a challenge over the years, drug treatment providers have also been reluctant to address HIV because it can complicate the treatment process. IDUs trying to cope with their HIV diagnosis may not be able to focus on their addiction and they may have issues that drug treatment providers are unable to address. This is especially true for treatment programs that included group therapy. In response, some drug treatment programs have been developed specifically for people living with HIV.

In addition to the differences related to abstinence and the challenges of addressing both conditions, providers in drug treatment and HIV services may have limited knowledge of other services and may not have received training beyond their own discipline. Cross-training has proven to be a very effective approach in bridging the gaps between providers. Cross-training of staff from HIV services, substance abuse, primary care and other social services allows professionals to learn about other service approaches, create linkages and facilitate dialogue across disciplines. HIV prevention workers can gain a greater appreciation for the challenges of drug treatment and drug treatment providers can become more comfortable with the screening, risk assessment, and harm reduction skills key to HIV and hepatitis prevention activities. All providers can improve their ability to respond to the overlapping health and behavior problems of IDUs seeking services.

Key to the success of cross-training initiatives is the support of high-level administrators. Their participation and support can encourage acceptance, break down the barriers, and ensure that the cross-training is institutionalized and available on an ongoing basis.

In 1993, the federal Center for Substance Abuse Treatment (CSAT) and CDC developed an interagency initiative to provide cross-training workshops across the country. In 1998, the Health Resources and Services Administration (HRSA) joined the initiative.

Finally, there are some legal barriers to collaboration. Federal confidentiality protections prohibit drug treatment staff from sharing information about patients with public health staff. These can be addressed through the development of qualified service organization agreements (QSOAs), which are interagency agreements that allow drug treatment and public health providers to share some information about patients within the legal constraints of federal confidentiality protections.

and sterile syringe access programs, to help IDUs increase their protective behaviors and reduce their risks for HIV, HBV, HCV, and other sexually transmitted diseases (STDs).

Community-based outreach workers are often the first contact between IDUs and service providers. Because they are responsible for taking prevention messages to IDUs, it is important that outreach workers know where, when, and how to contact IDUs within their own environment. A good outreach worker becomes a trusted and recognized source of information for the target

population. In addition to prevention messages outreach workers can also serve as a bridge to treatment, counseling and testing or other services. Some outreach workers distribute condoms, bleach kits, sterile syringes and other materials that allow IDUs to reduce their risk.

Indigenous, or peer, outreach workers can be especially effective. They know, and are known in, the community and may have easier access to the target population. Outreach workers with a history of drug use may have more credibility with the target population because they have “been there and done that.” They can honestly discuss drug use, the challenges of treatment, and the benefits of getting clean. By being in the community and regularly available, they can help the target population on their own terms and be there when a drug user decides he or she is ready for help. It is important that outreach workers who are former drug users be provided appropriate support to help them stay clean. Immersing themselves in an

environment where drug use is prevalent can put them at risk of relapse.

Outreach is not only appropriate for urban areas. However, it can be a challenge in other settings. In some ways, outreach is more necessary in rural or semi rural areas.

Community-Based Outreach Model

The National Institute on Drug Abuse (NIDA) has developed a manual that discusses the principles of HIV prevention for drug users and their sex partners, including step-by-step instructions for conducting community-based outreach. It also includes information for program managers to use in designing outreach risk reduction programs in their communities.

The model includes two interrelated components designed to facilitate behavior change among at-risk drug users. These include: 1) community-based outreach conducted in a range of local settings to access and engage drug users in the process of behavior change to prevent HIV and other blood-borne infections; and 2) education and risk reduction sessions organized around HIV, HBV, and HCV testing to provide pre- and post-test counseling to help drug users learn about their serostatus and the behavior changes needed to reduce transmission risks.

The *NIDA Community-Based Outreach Model: A Manual to Reduce the Risk of HIV and Other Blood-Borne Infections in Drug Users* is available at <http://drugabuse.gov/CBO/index.html>.

In these settings, drug users are more isolated and more concerned with confidentiality. In a community where everyone knows everyone, people may be reluctant to disclose their drug use to anyone. If there is a service provider available, IDUs may not want to be seen visiting the office since it could lead to speculation on the part of their neighbors. In rural areas, outreach workers must be creative. For example, an outreach worker may rely heavily on telephone contact and pre-arranged meetings with clients, either at their homes or specific, neutral locations.

Within the population of IDUs there are many subpopulations that may require specialized outreach. These include incarcerated individuals, sex workers, and youth. Because of the unique aspects of these populations, peer outreach workers can be especially effective.

Syringe Access

Use of sterile syringes greatly reduces the risk of infection for IDUs. Unfortunately, sterile syringes are not readily available to many IDUs, for a variety of reasons. Advocates for harm reduction view increasing the availability of sterile syringes as one of the most important ways to reduce the spread of blood-borne infections.

When they are not readily available, IDUs must obtain their syringes from drug dealers, needle dealers, in shooting galleries, or from friends and injection partners. Some IDUs are able to obtain syringes from diabetics, who have access to syringes. Many of the syringes obtained through these methods have been used before and are contaminated.

Why are sterile syringes so hard to obtain? In most part, it is due to policies designed to limit access in the belief that it will reduce drug use. Most states have legal restrictions on the sale and distribution of sterile syringes, in the form of drug paraphernalia laws and syringe prescription laws. These restrictions create barriers to various syringe availability strategies, which are listed below.

- **SYRINGE EXCHANGE PROGRAMS (SEPs)** provide IDUs with free sterile syringes. Since clients

New York State's Expanded Syringe Access Demonstration Program (ESAP)

In 2000, amendments to the New York State (NYS) Public Health Law established the Expanded Syringe Access Demonstration Program (ESAP), which became effective January 1, 2001. ESAP allows for licensed pharmacies, health care facilities and health care providers who can otherwise prescribe hypodermic needles or syringes to register with the NYS Health Department to sell or furnish up to 10 hypodermic needles or syringes to persons 18 years of age or older, without a prescription. This change in the law gives adults access to sterile syringes from a reliable source without a prescription. One of the requirements of ESAP is that each time syringes are sold or furnished under the program, a "safety insert" is included, which explains proper syringe use, safe disposal, risk of blood borne diseases, dangers of injection drug use, how to access drug treatment and information about HIV/AIDS.

While ESAP's primary focus is on enhancing syringe access through non-prescription pharmacy sales, provisions concerning safe disposal were included. To qualify for registration to sell or furnish syringes under ESAP, eligible providers must "cooperate in safe disposal of used hypodermic needles and syringes." NYSDOH developed "New York State Guidelines for Pharmacies Interested in Accepting Hypodermic Needles, Syringes and Other 'Sharps' Used Outside of Health Care Settings for Safe Disposal (March, 2002)" to assist pharmacies. These guidelines can be viewed online at <http://www.health.state.ny.us/nysdoh/hiv aids/esap/pharmdispose.htm>. Further, NYSDOH is pursuing community sharps collection and disposal through community-based syringe access and safe disposal demonstration projects. Coalitions reflecting numerous partners and perspectives are exploring options, including placement of sharps collection "kiosks" in convenient settings, such as pharmacies, clinics and community-based organizations. Syringe exchange programs (SEPs) are forging new partnerships with pharmacies to "close the loop" by offering sharps containers and information about the SEPs as resources for safe disposal. The NYC DOH has installed "drop boxes" outside of public clinics in all five boroughs of NYC to offer new options for safe disposal. Collection of household sharps has been facilitated through development of the "New York State Safe Sharps Collection Program". A registration form is available on the NYSDOH website at <http://www.health.state.ny.us/nysdoh/hiv aids/esap/pdfs/sharpscoll.pdf>. ESAP has provided impetus for these and other safe disposal initiatives.

An independent evaluation conducted in consultation with the NYS AIDS Advisory Council was submitted to the Governor and the Legislature on January 15, 2003 that assessed the impact of ESAP on needle and syringe sharing, substance abuse, pharmacy practice, criminal activity, accidental needlesticks among law enforcement, sanitation and other personnel, syringe disposal and various methods of education on safe use and proper disposal. Results of this evaluation were considered when the Governor and Legislature extended ESAP through September 1, 2007.

For more information about ESAP, please visit <http://www.health.state.ny.us/nysdoh/hiv aids/esap/regover.htm>.

must bring in used syringes to "exchange," the programs do not increase the number of syringes in circulation or create a problem with discarded syringes. Many SEPs serve as a bridge to other services and can link clients to substance abuse treatment, education and counseling, and health services.

- **PHARMACY SALES** allow IDUs to purchase sterile syringes. However, over 20 states have pharmacy regulations or practice guidelines that limit the pharmacy sale of sterile syringes to IDUs. These regulations, which can require purchasers to show identification, sign a register of syringe purchasers, or state the purpose for the purchase, can serve as a significant deterrent to IDUs who are reluctant to provide personal information due to the illegal nature of the activity. Even if there are no legal barriers to purchase, individual pharmacies or staff can take steps to discourage IDUs from patronizing their establishment. To expand this option, policy changes are required to abolish restrictions and efforts are necessary to educate pharmacists about the medical imperative of increasing access to sterile syringes.

- **PHYSICIAN PRESCRIPTION** is also a way to increase syringe availability. Some IDUs may feel more comfortable working with their physician to address their addiction. Taking the steps to initiate safer injection practices,

and obtaining a prescription from their physician, can be a first step in overcoming addiction. While this approach is probably appropriate for only a small segment of the drug using population, it does increase the options available to drug users.

All three of these options serve to increase the availability of syringes. Supporters of syringe access stress the importance of multiple options that can meet the needs of various drug users. For example, an IDU may not have money to purchase syringes from a pharmacy and may rely on free syringes from a SEP. Another IDU may be most comfortable obtaining a prescription from their physician in order to give a certain feel of legitimacy to the purchase.

The question of syringe disposal must be addressed simultaneously with syringe access. Improper disposal of syringes presents a threat to public health. In many community-level debates about syringe access, fear of increased numbers of used syringes discarded on the street, playgrounds, or other public places becomes a major issue. Drug paraphernalia laws can serve as a barrier to safe disposal of syringes. These laws often criminalize possession of syringes. Since they risk arrest, IDUs may be more likely to discard a syringe in an unsafe manner instead of keeping it in their possession until they can dispose of it safely.

Supporters of syringe access argue that their efforts encourage the safe disposal of syringes. With exchange programs, used syringes become a valuable commodity. In some communities, the establishment of a SEP reduced the number of used syringes found on the street. Physicians and pharmacists can discuss proper disposal with their clients and provide sharps containers. Some communities have installed drop boxes or established drop off sites for safe disposal. For information on safe community needle disposal, visit <http://www.safeneedledisposal.org>.

To access a series of fact sheets on syringe access and disposal, visit the CDC's website at <http://www.cdc.gov/idu/facts/index.htm>.

Prevention Case Management

Prevention case management (PCM) is an intensive intervention targeting people at risk of, or infected with, HIV. It is an ongoing, one-on-one intervention intended to meet the specific needs of the person at risk. For people who are not infected, the goal is to get them to adopt behaviors that keep them from becoming infected. For those who are already infected, the goal is to adopt behaviors to prevent transmission to others. Because PCM is designed for individuals with complex lives and circumstances, it is an especially appropriate intervention for IDUs who face various stigmas associated with drug use and often live in challenging situations.

The focus of PCM is to meet clients “where they are at” and help them to adopt lower risk behaviors. Some clients are linked with PCM after they are tested for HIV and, based on an assessment, are determined to be at risk. Others are reached through outreach activities. For these, the first step might be taking an HIV test to learn their status.

Ongoing support for behavioral change is a key element of PCM. Clients are educated on how to reduce their risk. In addition, clients are linked to other services. These services can include counseling to explore factors, such as a history of abuse, that lead to high-risk activities, or supportive services such as housing, employment or drug treatment. By treating all of a client’s needs, that client can hopefully become healthier overall, and therefore more able to adopt lower-risk behaviors.

CDC has identified seven key components of PCM:

- Client recruitment and engagement;
- Screening and comprehensive assessment of HIV and STD risks, medical and psychosocial service needs, including STD evaluation and treatment, and participation in drug treatment;
- Development of a client-centered prevention plan;
- HIV risk-reduction counseling over multiple sessions;
- Active coordination of services with follow-up;
- Monitoring and reassessment of clients’ needs, risks, and progress; and
- Discharge from PCM when the client attains and maintains his or her risk-reduction goals.

HIV Counseling and Testing

HIV counseling and testing allows individuals to learn their HIV serostatus, receive individual, client-centered risk reduction counseling, and obtain referral to additional services in a private and confidential manner. Those testing HIV positive are referred to clinical care and case management and those who are not infected receive counseling and support for risk reduction efforts and referrals to appropriate services.

Beyond Sterile Syringes

Because HCV is more infectious than HIV, messages designed to prevent the spread of HCV must focus on a broader range of activities than HIV prevention messages.

In addition to the use of a sterile syringe, HCV prevention messages must also encompass:

- Use of new or disinfected paraphernalia;
- Use of sterile water to prepare drugs;
- Dividing drugs before they are prepared for injection (not sharing drugs); and
- Sterilization of the surfaces where the drugs are prepared.

Bottom line, any contact with blood is risky. For example, if a drug user uses a piece of cloth to stop the bleeding after an injection that has been used by another drug user for the same purpose, even if it is days or weeks later, infection can occur.

It is important to note that expanded prevention messages present a challenge to educators. People can only absorb so much information in a single exchange and drug users may not, for a variety of reasons, be able to carry out all the necessary steps to ensure a safe injection. Because of these challenges, supporters of harm reduction stress the importance of moving drug users along a continuum toward safer behavior. Of course, cessation of drug use is the safest of all behaviors and promotion of drug treatment should always be a component of HIV and HCV prevention messages.

Because many IDUs mistrust conventional health service systems or have limited access, services should be provided in different venues, such as drug treatment facilities or during outreach activities, and delivered in a nonjudgemental manner. Recent innovations in HIV testing, such as rapid tests where results are provided in the same visit and oral fluid testing kits, which allow antibody testing without the need for a blood sample, may make testing more attractive to IDUs.

Despite its general availability, there are still a very large number of people who do not know their HIV status. Many people who are tested for HIV do not return for their results. Others, who learn that they are infected, do not seek additional services for a variety of reasons.

A serious implication for IDUs is that federally-funded HIV counseling and testing activities do not currently include counseling, testing and referral for other blood-borne infections like hepatitis B and hepatitis C. Offering these additional screening services would probably serve as a very strong incentive for IDUs.

Safer Injection with the “One Hit Kit”

Positive Health Project, Inc., an HIV prevention/harm reduction agency located in New York City, and Safety Works, a distributor of harm reduction program supplies, collaborated with researchers from the Yale University School of Public Health to develop and conduct a survey measuring perceived risk, injection behavior and HCV infection in IDUs. The goal of the study was to determine possible strategies to reduce the risk of HCV infection related to the use of drug injection equipment and to drug injecting practices. Three other syringe exchange programs from Los Angeles, Connecticut and Wisconsin participated in the study.

The study consisted of surveying clients of the participating syringe exchange programs in New York City, Los Angeles, Connecticut and Wisconsin. The study found that clients were less educated about HCV than HIV and believed that the risk reduction techniques they used for HIV would protect them against other blood-borne infections. The survey also found that clients were unaware of the dangers associated with the reuse or sharing of water (as soon as a used syringe is dipped into a water bottle, the water and bottle become contaminated and should no longer be used), of the importance of using clean paraphernalia, and of eliminating skin contact with blood.

To address and help change these risky injection practices, project collaborators created the “One Hit Kit.” This kit contains one cooker, one cotton filter, one sealed 5 ml vial of water, one alcohol pad to clean the injection site and one gauze pad to stop the flow of blood from the injection site. Also included is a “palm card” (see figure 1) which clearly outlines nine steps for safe injection. All items are sealed in a plastic bag and labeled “use once.” Injectors reported that they were much more likely to use injection equipment only once after they were educated about the risk of contracting HCV.

PREVENTING BLOOD-BORNE INFECTIONS IN IDUS

Despite the interventions already mentioned, it is important to educate IDUs in safer injection techniques since sterile syringes may not always be available and other steps in the injection process pose a risk of infection. In Principles of HIV Prevention in Drug-Using Populations, NIDA recommends the following hierarchy of HIV/AIDS risk-reduction messages, beginning with the most effective behavioral changes that drug users can make.

- Stop using and injecting drugs.
- Enter and complete drug treatment, including relapse prevention.



figure 1 One Hit Kit Palm Card

- Never re-use or “share” syringes, water, or drug preparation equipment.
- Use only sterile syringes obtained from a reliable source (e.g., a pharmacy or a syringe access program).
- Always use a new, sterile syringe to prepare and inject drugs.
- If possible, use sterile water to prepare drugs; otherwise use clean water from a reliable source (e.g., fresh tap water).
- Always use a new or disinfected container (“cooker”) and a new filter (“cotton”) to prepare drugs.
- Clean the injection site with a new alcohol swab before injecting drugs.
- Safely dispose of syringes after one use.

These are very general rules for safer injection and they do not address the many issues and situations that can occur. For example, they do not address the sharing of drugs. Drug users share drugs primarily for financial reasons, not as part of a drug using “ritual,” as some believe. If the drug solution is prepared and then divided, transmission can occur if any of the elements (drug preparation equipment, water, syringe) are infected. Drug users should be encouraged to divide the drug before it is prepared.

In addition, the above messages do not address what should be done in the event that a sterile syringe is not available. For years, IDUs have been encouraged to use bleach to clean their syringes and works. Using bleach only reduces the risk of transmission--it does not eliminate it. Bleach disinfection should be considered as a method to reduce the risk of HIV infection when re-using or sharing syringes (and other injection equipment) when no other safer options are available. It must be noted that while bleach can reduce the risk of HIV transmission, there has not been sufficient research to date to prove the efficacy of bleach in killing HBV and HCV. Because of these ambiguities, many prevention programs no longer advocate the use of bleach. They argue that there are only so many messages that an IDU can absorb in an outreach session. While this is clearly a reality, if possible, IDUs who must use used syringes should be encouraged to clean their syringe and works with bleach since it is known to be

effective in killing HIV and the evidence is inconclusive on HCV.

There are many resources that go into much greater detail on safer injection techniques. The Harm Reduction Coalition is a good source of these materials at <http://www.harmreduction.org>.

While there is overlap between HIV and hepatitis prevention messages, it is also important to acknowledge the differences. HCV is far more infectious than HIV and the common prevention messages used in HIV prevention (don't share syringes) are insufficient for preventing the spread of HCV. The message to prevent all blood-borne infections must emphasize that any contact with blood--on paraphernalia, surfaces, and through sharing drugs--is risky. No longer can the message be limited to "A sterile syringe every time." It must encompass the entire process of shooting up, including the sharing of drugs.

SERVICES FOR HBV- AND HCV-INFECTED IDUS

Many service providers have been reluctant to initiate hepatitis C counseling and testing services because they believe there is little that can be offered to those that test positive. If a person does not have health insurance, treatment may seem out of reach. However, as with any disease, there are a range of activities that can be implemented to prevent and control hepatitis.

Providers that have incorporated hepatitis-related services report that while it is a challenge to link clients to clinical care when it is indicated, it is possible, through compassionate care programs, city and county insurance programs, or other sources of care. Providers also report that hepatitis-related services act as a real "draw" for drug users. Offering HCV screening and HAV and HBV vaccines can bring drug users into the care system. Once there, providers can focus on other needs such as linking the drug user to drug treatment or other social services.

Primary Prevention Education

As discussed earlier in the document, IDUs need to be educated about HBV and HCV, taught how to reduce

their risk and protect others through the adoption of safer behaviors, and provided information on what they should do if they think they are infected.

Screening

The Recommendations for Prevention and Control of Hepatitis C Virus (HCV) Infection and HCV-Related Chronic Disease, (<http://www.cdc.gov/mmwr/preview/mmwrhtml/00055154.htm>) developed by the CDC, specify that testing should be routinely offered to people at-risk of infection with HCV.

To identify persons who should be counseled and tested for HBV and HCV, providers and counselors should routinely question individuals about risk factors, including a history of or current injection drug use. However, IDUs are often not seen in primary care or other traditional health care settings. Targeted outreach in other settings, such as correctional institutions, drug treatment programs, programs for high-risk youth, HIV counseling and testing sites, and STD clinics, may be particularly effective in reaching this populations. In addition, some HIV and STD programs offering HCV counseling and testing have found that some clients may be reluctant to report injection drug use, but less hesitant to admit to sex with an IDU. This risk question may be a good proxy for injection drug use in some circumstances.

Other groups recommended for HCV testing include, persons who received blood-clotting factors produced prior to 1987; persons who received blood transfusions or organ transplants prior to 1992; persons who have signs or symptoms of liver disease (e.g., abnormal liver enzyme tests); persons who were notified that they received blood from a donor who later tested positive for hepatitis C; children born to HCV-positive women; and health-care, emergency medical, and public safety workers after needle sticks, sharps, or mucosal exposures to HCV-positive blood. In addition, anyone who wishes to know their HCV infection status should be provided the opportunity for testing. In all instances, testing should be accompanied by appropriate counseling and referral for medical follow-up.

Secondary Prevention Education

There are specific steps a person infected with HBV and HCV should take to protect their health. One of the most important of these is to abstain from alcohol since consumption of alcohol can speed the onset of liver disease. In addition, if appropriate, infected individuals should be immunized against HAV and HBV (see below).

Vaccination

IDUs should be immunized against HAV and HBV infections, unless they have already been infected. Since HAV infection can be very severe in those who already have chronic liver disease from HBV or HCV infection, anyone who is infected with either HBV or HCV should be offered an HAV vaccine. The HAV vaccine is given in 2 doses, 6 months apart. The HBV vaccine is usually given in 3 doses over a 6-month period. In addition, a combined hepatitis A and hepatitis B vaccine (Twinrix) is available. This vaccine follows the same dosage schedule as the hepatitis B vaccine.

Because they are not available in a single dose, administering the vaccines to IDUs can be a challenge. After the first dose, people are required to return for the additional doses. Given the chaotic lives led by some drug users, this does not always happen. Some providers attempt to follow up with people after their first dose, through reminder cards or other methods, but these efforts are only moderately successful. Organizations working on HIV, IDU, and substance abuse issues are becoming increasingly aware of the need to provide vaccinations to those at risk. However, limited staffing, expertise, and funding for vaccines can present a barrier to adding this service to their existing efforts.

Treatment

Two drugs, alpha interferon (or an improved form of interferon, called pegylated interferon) and ribavirin, have been approved by the Food and Drug Administration (FDA) for the treatment of chronic hepatitis C. Interferon is either given alone or in combination with ribavirin for a 12-month period to patients who are at greatest risk of developing serious liver disease. The treatment is expensive, only moderately effective, and not appropriate for everyone infected. In addition, there can be significant side effects.

While no longer the case, earlier treatment guidelines recommended that treatment not be provided to drug users unless they had abstained from drug use for at least 6 months. The current guidelines suggest that decision to treat be made on a case by case basis. Even if antiretroviral treatment is not indicated, there are a number of steps HCV-infected IDUs should be encouraged to take to protect their health. One of the most important steps is to avoid consumption of alcohol because alcohol can accelerate the progression of liver disease.

Three drugs are also available for treating chronic hepatitis B: adefovir dipivoxil, alpha interferon, and lamivudine. Adefovir dipivoxil slows the progression of chronic hepatitis B by interfering with viral replication and causing DNA chain termination after its incorporation into viral DNA. It has been shown to be effective in treating patients with HBV that is resistant to lamivudine. Alpha interferon stimulates the immune system to fight infection. It is expensive, must be administered by injection, and has multiple side effects. Lamivudine has few, if any, side effects. Stopping lamivudine can result in relapse but continuing lamivudine indefinitely often leads to antiviral resistance.

INTEGRATING HCV SERVICES

Since IDUs are an extremely hard-to-reach population, any contact they have with a service provider should be used to link them with additional services. For example, drug treatment programs can link their clients to HIV and hepatitis counseling and testing. HIV outreach efforts focusing on harm reduction can also provide information and referral on drug treatment.

Many providers do not have the resources to address viral hepatitis through education, screening, vaccination and treatment. Barriers include:

- Inadequate infrastructure to incorporate additional services;
- Lack of resources and expertise to conduct training for staff; and
- Lack of funding to increase capacity.

In addition, on the front lines, staff may be reluctant to take on more responsibilities or feel that they are not qualified to take on these responsibilities unless adequate support and training is provided. Staff may also be resistant to incorporating hepatitis services because they feel limited in their ability to address client needs due to the lack of referral options.

However, successful approaches of integration exist. The following profiles provide examples of how three health departments have integrated viral hepatitis into their existing services.

Multnomah County, Oregon

Training Staff to Integrate HCV Prevention into Existing HIV Prevention Programs for IDUs

In Multnomah County, Oregon, injection drug use is pervasive and an undeniable risk factor for infection with HIV, HBV and HCV. While the HIV infection rate has remained relatively low (<5%), there is a much higher rate of HCV infection among IDUs in the Portland metro area. As a direct result of community advocacy, the Multnomah County Health Department (MCHD) began integrating hepatitis C prevention and support services into STD, counseling and testing, and HIV outreach programs in the fall of 1999.

In 2000, the MCHD formally developed the Viral Hepatitis Integration Program (VHIP). Since its inception, VHIP has provided ongoing and extensive capacity building training to HIV counseling, testing, and referral staff; STD clinicians; syringe exchange workers; HIV outreach workers; and county alcohol and drug evaluation specialists. The training is designed to prevent further HCV transmission and promote the testing of persons at highest risk for HCV in the community.

Incorporating HCV prevention into existing outreach has been a challenge, according to Alison Goldstein, a Hepatitis C Social Worker with MCHD. Goldstein notes, "The shift from an HIV risk-reduction approach to a broader, multi-infectious disease approach has required extensive support, training, and integration of previously separate disease prevention services."

Infectious disease prevention requires staff to focus on risks related to syringe sharing, drug preparation and distribution, the intricacies of sex and drugs, and the motivations behind behavioral risk activities. This communication exchange requires time, technical skill, and coordination among programs. MCHD recognized

the need for more structured service integration and staff skill building to move clients along the behavior change continuum.

Over the years, MCHD has identified the following issues that impact efforts to reach IDUs.

- There are social, legal, and practical barriers to reducing risk for diseases, such as HIV, STD's and hepatitis C.
- The benefits of drug use (numbing, reducing social inhibition, better sex) often outweigh the consequences (missing too much work, fighting with partner, having unprotected sex) for clients.
- A client's previous experience with change, readiness to reduce risk, and perceived/real barriers will either facilitate or hinder the change process.
- The client has to feel the change is important and have a sense of confidence that they can alter their behavior for risk reduction to occur.
- Measurable, meaningful risk-reduction planning must be mutually agreed upon and initiated by the client.



- With appropriate training, HIV/STD outreach workers and counselors can adapt their prevention messages to individual clients, based on their particular risks.
- Integrating hepatitis information requires staff to focus on different messages related to syringe sharing, drug preparation and distribution, and motivations behind behavioral risks. Incorporating these messages requires time, technical skill and coordination across programs.
- Without a coordinated care system for persons diagnosed with HCV infection, job stress can increase for those responsible for providing HCV test results to clients.
- Hiring and maintaining staff with a history of drug use can be a challenge. Staff in recovery may need more coaching about boundary setting and client-centered counseling.

The above issues, as well as the increased volume of HCV-positive results, created a clear need for more structured program and service integration to assist clients with risk reduction activities. For MCHD staff, giving positive test results has become common, which has increased job stress and necessitated coordinated care systems for persons diagnosed with hepatitis C. Unlike with HIV, many MCHD staff reported feeling frustrated about giving people a positive test result for hepatitis C because of the existing service system's limited opportunities for follow up and referral. To address

this, services had to expand and be integrated to meet client needs. Presently, syringe exchange services, HIV and hepatitis C counseling and testing services, hepatitis A and B vaccination and STD treatments are all available at the centralized county STD program.

Behavioral risk activities such as trading sex for money or drugs, engaging in unprotected sex with multiple partners, sharing injection drug paraphernalia, having sex while intoxicated, and others can increase transmission of many STDs, hepatitis, and HIV. MCHD recognizes the interplay between sexual activity and drug use and referrals for testing, treatment, and support can be addressed most efficiently within this comprehensive care continuum. Nevertheless, referrals to medical care, mental health services, drug treatment, and other support services remain inadequate.

Finally, skill building efforts to move clients along the behavior change continuum resulted in challenges in hiring and maintaining staff with a history of drug use (but in recovery). The recovery history of staff clearly facilitates access to hard-to-reach communities, but it creates challenges to risk planning. Some of the “in recovery” staff struggle with the idea of harm reduction, perhaps believing that absolute abstinence from drugs and alcohol is the only way to reduce risk. Further, a staff member’s personal success or failure with a drug treatment approach may be unnecessarily projected onto their clients. Often, these staff need more coaching around boundary setting and client-centered counseling.

Through training, outreach workers and counselors are learning to adapt their prevention messages to individual clients, based on their particular risks and their stage of behavior change. Service integration and staff skill building have improved MCHD’s capacity to motivate clients toward behavior change and link clients to appropriate care systems. When giving test results to persons with hepatitis C, staff convey three core public health messages to clients: 1) reduce/abstain from drinking alcohol and using other drugs, 2) get vaccinated against HAV and HBV, and 3) see a health care provider routinely. These care messages are delivered to clients only after assessing their motivation for, and readiness to, change. Overall,

these fundamental program changes have improved skill and have increased staff ability to meet the ever-changing needs of IDUs.

For more information, call: Jessica Guernsey Camargo, HIV/Hep C Health Educator at 503-988-3030.

New Mexico

Integrating Viral Hepatitis Services into a Statewide Harm Reduction Program

From 1994 to 1997, the New Mexico Department of Health conducted a statewide street-based seroprevalance study that showed that less than 1 percent of IDUs were infected with HIV and 82 percent had been infected with hepatitis C. These findings helped win legislative support for a statewide harm reduction program, including syringe exchange, which was initiated in 1998. Advocates for harm reduction argued that the state should take steps to protect IDUs while the prevalence of HIV was still low, in order to prevent the explosion of new cases of HIV in IDUs that had been seen in other states. The program now has an annual budget of \$700,000 and 23 sites throughout the state.

New Mexico's rates of injection drug use are higher than the national average and the state has the highest overdose rate in the country. The New Mexico Harm Reduction Program offers IDUs a wide range of services. Depending on the area served, sites are either fixed or mobile (using a van or RV). The sites provide sterile syringes, sterile packets of water, cookers, dental cotton and information on safe injection. HIV testing is available and referrals are made to HIV treatment and drug treatment. Overdose prevention information and training, as well as Narcan, are also available.

The New Mexico Department of Health has built on its harm reduction program to incorporate viral hepatitis services for this highly at-risk population. With a relatively small population, 1.8 million people, and a centralized department of health, New Mexico is well positioned to address many challenges through collaboration. Because it is not a large, centralized organization, many linkages can be informally established between staff of different programs to implement collaborative initiatives.



- In smaller states, integration across state programs may be easier because there is less bureaucracy and efforts may be initiated on an informal basis.
- Because each community is unique, challenges can vary at the local level, necessitating various collaborative approaches.
- Integration of services may result in compromises, given limited resources. Even if a service cannot be provided onsite, it is possible that through integration it can be provided through referral.
- Staffing shortages can be addressed in various ways-- New Mexico hired part-time contract nurses.
- Hepatitis programs can offer a variety of services to HCV-infected individuals including risk reduction counseling, education on preventing disease progression, HAV and HBV immunizations, and support groups for those both in and out of treatment.

Since 2000, the harm reduction sites have been offering a range of state-funded services to address viral hepatitis. Hepatitis B and C screening and hepatitis A and B vaccines are available at no cost to harm reduction program clients, often onsite. All harm reduction staff have received cross-training in viral hepatitis so that they can serve as resources to clients.

Clients in some areas must be referred to another site for screening and vaccines, instead of receiving the services at the harm reduction site. While not optimal, the service is still accessible to clients. The most significant barriers to providing services are the shortage of nursing staff to administer testing and vaccines and the inability of some sites to store vaccine. These two barriers are being addressed by encouraging collaboration at the local level. The Hepatitis Program works with the health offices throughout the state to facilitate partnerships between the health offices and their local harm reduction sites and HIV prevention programs. These partnerships often include arrangements for health offices to store vaccine and supply nurses to the sites.

One of the ways the Hepatitis Program addresses the challenge of staffing is by hiring contract nurses. Currently, there are four contract nurses, one serving each of the state's health districts. Their contracts cover a set number of hours and their only responsibilities are to provide vaccine and testing services in nontraditional settings. Within their districts, nurses are responsible for providing coverage at harm reduction sites and HIV prevention sites each week. These sites include a variety of outreach settings, including detention centers. One nurse even visits an adult bookstore on a regular basis.

Another challenge is getting clients to return for subsequent vaccine doses. Both the HAV and HBV vaccine require

multiple doses over a period of months. While the Hepatitis Program believes it is fairly successful in this area, the program is still looking for ways to evaluate the return rate. One of the benefits of providing these services at the harm reduction sites is that the clients return to the sites for other services, especially to exchange syringes. This provides ongoing access to clients. The Hepatitis Program is experimenting with sending email reminders to clients. Many of the clients, even the homeless ones, have email--they can access it in public libraries.

The Hepatitis Program also conducts educational activities. Currently a viral hepatitis social marketing campaign, funded by the CDC, is underway. It encourages IDUs to get tested for hepatitis C and get vaccinated against HAV and HBV. The campaign also stresses the importance of avoiding alcohol for people who are infected with hepatitis C, since the program's initial focus groups indicated that many IDUs are not aware of the role of alcohol. Another message that is emphasized is the importance of not sharing works. The focus groups also found that while many IDUs know not to share syringes, they are not aware that viruses can also be spread through contaminated works.

While beyond the scope of their work, that lack of treatment options for people with hepatitis C serves as an ongoing struggle for the program and harm reduction program staff. With few exceptions, unless clients have health insurance or live in the county served by the University of New Mexico Hospital, they do not have access to treatment. While state resources are not available to provide treatment services, the Hepatitis Program is exploring ways to address some of the needs of HCV-infected clients. The program is establishing support groups for people who are infected with hepatitis but not in care (support groups are also available for people who are in care). Facilitators undergo training so that they can serve as resources and to ensure that the information provided is correct and consistent. Participation in a support group can lead to the adoption and/or maintenance of safer behaviors and also encourage participants to take steps, such as abstaining from alcohol, which will protect their health.

For more information, call: Don Torres, Acting Hepatitis Program Manager, New Mexico Department of Health, 505-476-3629.

Rhode Island

Taking Advantage of Opportunities to Enhance and Expand Services

Rhode Island has relied heavily on integration at various levels to provide viral hepatitis services to IDUs. With the extremely limited resources available for hepatitis services, integration across state agencies and at the local level has been an approach adopted by many states. Through integration, the expertise, resources and ties to the target population of multiple programs can be tapped to meet the needs of the clients. In addition to collaborating at various levels, Rhode Island actively sought out resources that provided opportunities to expand and enhance services.

It is estimated that 18,000 individuals are infected with HCV in Rhode Island. Newly unduplicated laboratory reports of HCV infection in the state range from 659 identified in 1997 to over 2,600 identified in 2002. Rhode Island is in the midst of a heroin epidemic, with the number of opioid-dependent people growing and the age of onset decreasing. Currently, facilities that treat opioid dependence and those at highest risk serve 4,000 daily. It is estimated that 90 to 95 percent of the IDUs in the state are infected with HCV.

The Rhode Island Department of Health's (DOH) response to this challenge began in 1996 with a resource inventory and a prioritization exercise. The activities identified as priorities included: provider education; public education; staff development and training; expanded surveillance/epidemiologic investigations; development of a treatment infrastructure of providers willing and able to treat HCV-infected individuals; and needs assessment activities.

As a first step, DOH sought to determine how HCV-infected individuals were accessing care. In order to carry out more surveillance activities, DOH sought additional funding and, in 1997, DOH was awarded a seed grant from a pharmaceutical company. A part-time nurse was hired to conduct an assessment of the needs of HCV-infected clients in relation to access to treatment.

DOH also sought additional resources to support integration efforts. Since the 1980s, DOH has worked

with the Department of Mental Health, Retardation, and Hospitals (MHRH) in the areas of HIV, substance abuse and mental health. When the two agencies began to look at ways that they could collaborate around hepatitis, they tapped into technical assistance and capacity building support from the Substance Abuse and Mental Health Services Administration's (SAMHSA), Center for Substance Abuse Treatment (CSAT). With the support from CSAT, consultants were engaged that assisted in the process of creating an interagency strategic plan to address HCV in drug users. Paul Loberti, Rhode Island AIDS Director, emphasizes the importance of the technical assistance in moving forward integration efforts. He encourages other states to take advantage of this resource.

What has evolved, as a result of integration, is a multi-layered approach to hepatitis.

At the intervention level, IDUs receive prevention services from the ENCORE (education, needle exchange, counseling, outreach and referral) program, which is administered by DOH's Office of HIV and AIDS. This state-funded syringe exchange program provides education and risk reduction services to IDUs and refers clients to hepatitis screening and immunization services.

Both DOH and MHRH participate in the HIV community planning group (CPG) and the CPG has a task force addressing substance use disorders. The CPG is instrumental in carrying out assessments that explore the variables related to this population, issuing policy statements, and advocating for more resources. In addition, in 2003, DOH established the Viral Hepatitis Advisory Group, made up of health care providers, community advocates, health insurance representatives and other hepatitis stakeholders. The purpose of the group is to assess the needs and gaps of viral hepatitis prevention and treatment services and assist in formulating a long-



- Assess the availability of existing services (service inventory) and prioritize identified needs.
- Educate policymakers on the issues relating to viral hepatitis.
- Seek resources from the private sector and Federal agencies.
- Integration should not be limited to the provision of services but should include planning activities.
- Develop an advisory group of major stakeholders.

term strategic public health response to viral hepatitis. In terms of viral hepatitis-specific services, DOH has hired a HCV coordinator/program manager and a care coordinator. The care coordinator is limited to working with specific populations that include HCV-infected Department of Corrections inmates and clients of the state's methadone treatment program and syringe exchange program. Linking people to care can be extremely difficult since most do not have health insurance. Screening and vaccinations (for HAV and HBV) are available from various service providers. DOH and MHRH staff and the staff of both the agencies' vendors have received cross-training in viral hepatitis so consistent information is available to IDUs from various access points.

For more information, contact: Paul Loberti, AIDS Director, Rhode Island Department of Health, PaulL@doh.state.ri.us.

Appendix A
ONLINE
INJECTION DRUG USE
RESOURCES

A Comprehensive Approach: Preventing Blood-Borne Infections Among IDUs

A technical assistance document developed by CDC describing eight complementary strategies that, when used together, can prevent blood-borne infections among IDUs. Available at <http://www.cdc.gov/idu/pubs/ca/forword.htm>

CSAT/CDC/HRSA Cross-Training Initiative

A CSAT, CDC and HRSA training and technical assistance initiative available to state and local public health programs on cross-training and collaboration across multiple programs. Information is available at <http://www.treatment.org/Topics/infectious.htm>.

CSAT Treatment Improvement Protocols (TIPs)

Best practice guidelines for the treatment of substance abuse developed by CSAT. Relevant TIPs include Tip 37: Substance Abuse Treatment for Persons with HIV/AIDS, among others. Up to five free hard copies of TIPs can be ordered from the National Clearinghouse for Drug and Alcohol Information (NCADI) by accessing its electronic catalog at <http://www.health.org/about/Questions.htm> or by calling 1-800-729-6686. A brief description of each TIP and its NCADI order number is available at <http://www.treatment.org/Externals/tips.html>. Many TIPS are available online for download.

The NIDA Community-Based Outreach Model: A Manual to Reduce the Risks of HIV and other Blood-Borne Infections in Drug Users

Provides principles for the prevention of blood-borne infections for out of treatment drug users. Available at <http://drugabuse.gov/CBOM/index.htm>.

Principles of HIV Prevention in Drug-Using Populations

This guide, developed by the National Institute on Drug Abuse (NIDA), summarizes the basic overarching principles that characterize effective HIV/AIDS prevention in drug-using populations. The guide is available at: <http://drugabuse.gov/POHP>.

Principles of Drug Addiction Treatment

This guide, developed by the NIDA, summarizes the basic principles of drug treatment and describes different treatment options. Available at <http://drugabuse.gov/PODAT/PODATindex.htm>.

NASTAD's Joint Statement on Safe Community Needle Disposal

Joint statement issued by the American Diabetes Association (ADA), American Association of Diabetes Educators (AADE), American Medical Association (AMA), American Pharmaceutical Association (APhA), Association of State and Territorial Health Officials (ASTHO) and NASTAD on the importance of developing safe and convenient community disposal options for used needles and syringes. Available online at http://www.nastad.org/pro_viral_hepatitis.asp?menu=pro.

NASTAD's Joint Statement on HIV Prevention and Access to Sterile Syringes

Joint statement issued by the American Medical Association (AMA), American Pharmaceutical Association (APhA), Association of State and Territorial Health Officials (ASTHO), NASTAD and the National Association of Boards of Pharmacy (NABP) recommending the removal or modification of legal barriers to increase the availability of sterile syringes through pharmacies. Available online at: http://www.nastad.org/pro_viral_hepatitis.asp?menu=pro.

WEBSITES

Addiction Technology Transfer Centers

<http://www.nattc.org>

The ATTC Network is dedicated to identifying and advancing opportunities for improving addiction treatment. The Network is funded by the Substance Abuse and Mental Health Services Administration (SAMHSA).

American Liver Foundation

<http://www.liverfoundation.org>

Contains numerous resources on hepatitis, including a page dedicated to hepatitis-related information for drug users.

Centers for Disease Control and Prevention, Division of Viral Hepatitis

<http://www.cdc.gov/hepatitis>

Offers free brochures; frequently asked questions on HIV-HCV co-infection; slide sets on HAV, HBV and HCV; CDC publications and more.

Centers for Disease Control and Prevention, HIV Prevention among Injection Drug Users

<http://www.cdc.gov/idu>

A collection of fact sheets and other resources addressing HIV prevention, viral hepatitis, drug treatment, criminal justices and other topics.

Harm Reduction Coalition

<http://www.harmreduction.org>

Includes a broad range of resources on harm reduction and syringe exchange. Also has a brochure exchange where brochures from various programs can be downloaded.

HIVandHepatitis.Com

<http://www.HIVandHepatitis.Com>

Includes a wide range of treatment information for HIV and hepatitis.

National Alliance of State and Territorial AIDS Directors, Viral Hepatitis Program

http://www.nastad.org/pro_viral_hepatitis.asp?menu=pro.

The program provides guidance and information on developing appropriate staff expertise on viral hepatitis and incorporating viral hepatitis issues into existing program infrastructures. Materials are intended for use by state, territorial, county, and local HIV/AIDS programs, larger non-governmental HIV/AIDS service providers, and other public health agencies.

National Institute on Drug Abuse

<http://www.nida.nih.gov>

Information related to addiction and treatment.

North American Syringe Exchange Network

<http://www.nasen.org>

Resources on syringe exchange and harm reduction as well as information on their seed grant program for syringe exchange programs.

SAMHSA Center for Substance Abuse Treatment

http://www.samhsa.gov/centers/csat2002/csat_frame.html

Information on prevention and treatment of substance abuse.

Temple University, Law, Policy and Public Health

<http://www.temple.edu/lawschool/phrhcs/phrhsc.htm>

Contains comprehensive and current detailed legal analysis on the legality of prescribing, selling, possessing and disposing of syringes used in illegal drug injection.



Transmitted in many of the same ways, viral hepatitis and HIV/AIDS are infectious diseases that have drastic, long-term medical, economic, and social consequences for those infected with either or both viruses. Meeting the challenges posed by viral hepatitis requires close coordination with existing state and territorial HIV/AIDS programs. To this end, the NASTAD Viral Hepatitis Program has been funded by CDC to develop a comprehensive model for coordination between HIV/AIDS and viral hepatitis programs.

The NASTAD Viral Hepatitis Program will provide the systematic guidance and information that HIV/AIDS programs need to: 1) develop appropriate staff expertise on viral hepatitis; 2) inform them of the full range of existing materials and resources on this subject; and 3) enable them to conduct an assessment of how to incorporate viral hepatitis issues into their existing program infrastructures. Materials developed by this program are intended for use by state, territorial, county, and local HIV/AIDS programs, larger non-governmental HIV/AIDS service providers, and other public health agencies.

The National Alliance of State and Territorial AIDS Directors (NASTAD) represents the nation's chief state health agency staff who have programmatic responsibility for administering AIDS health care, prevention, education and supportive service programs funded by state and federal governments.

For more information on NASTAD's work on Viral Hepatitis,
go to www.nastad.org.