Clinical Approaches to Substance Use and Abuse in Primary Care: Treatment and Harm Reduction

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I. Talking with Patients about Drug Abuse and Dependency

JUST AS THERE IS SIGNIFICANT PRESSURE ON PARENTS TO TALK WITH THEIR children about recreational drug use, it is also up to the clinician to speak with his or her patients about the topic as well. "This is an issue that many physicians are not naturally good at, given that they are often pressed for time," Dr. Nuñes said. "We're used to telling patients what we want them to do and to get on with things. However, when dealing with a substance-abusing patient, if you really want to get them to change their behavior, it is important to use the spirit of the techniques of what is known as Motivational Interviewing."

In short, Motivational Interviewing is a directive, patient-centered counseling style for eliciting behavior change by helping patients to explore and resolve ambivalence. Compared with nondirective counseling, it is more focused and goal-directed. The examination and resolution of ambivalence is its central purpose, and the clinician is intentionally directive in pursuing this goal. "The idea of motivational interviewing is that, rather than being an authority figure, the physician instead makes an effort to first listen to the patient and see what his or her point of view is," Dr. Nuñes explained. "Feedback can then be tailored according to where the patient is at. The basic theory is that if they're not ready to give up substance use and you tell them that they must give it up, it's going to elicit resistance and they will be less likely to do it. However, by engaging a patient in discussion that's collaborative, collegial, and respectful of their point of view, you're more likely to win their trust."

While there is a whole textbook dedicated to the practice of motivational interviewing—it was developed by Drs. Stephen Rollnick and William Miller and continues to evolve under their guidance—it has been simplified for use in primary care settings. The counseling involves asking about substance abuse, eliciting the patient's point of view, and then suggesting a course of action based on what the patient says.

How to Ask?

DR. NUÑES EXPLAINED THAT THERE IS A GREAT DEAL OF STIGMA surrounding substance abuse, meaning that patients are often ashamed to admit that they are using and fear that they are going to be judged because of it. "It's helpful to have a non-judgmental attitude," he said, "and to be mindful of the kinds of stigma that the patient may come in with." Dr. Nuñes suggests starting with questions regarding more neutral substances, such as nicotine and caffeine. From there, questions about alcohol use should be raised, followed by questions regarding heroin, cocaine, crack, and methamphetamine. It is also important to inquire about the frequency of use and the amount consumed per occasion. "Ask in such a way that won't cause you to seem surprised if they do or don't report use of these substances. Don't make it seem as if you have an opinion one way or the other. This is much more likely to solicit an honest response."

Once the patient has discussed his or her drug use, it's time to make a diagnosis. "What you're looking for, in terms of high-risk sexual behavior, is any sort of substance use that is potentially impairing the patient's judgment regarding safe sexual practices," Dr. Nuñes said. The DSM defines abuse as any kind of harmful use. "If someone's getting intoxicated and is then engaging in high-risk behavior, this is by definition substance abuse." Another possible diagnosis is dependence. "With dependence, we have an individual with a habit in which there is a regular pattern of use. The person has lost control over it. They can't stop. They can't cut down. They have urges. They go through tolerance and withdrawal."

Elicit the Patient's Point of View

AFTER THE INITIAL QUESTIONS HAVE BEEN ASKED, IT IS IMPORTANT TO continue a conversation regarding substance abuse and dependency that requires eliciting the patient's point of view. "Here we also need open-ended questions," Dr. Nuñes said. "Examples of questions to ask include: 'What do you think about your cocaine use?' 'How do you feel about your cocaine use?' 'Anything about it bother you?' 'Does it worry you?' 'Do you worry about getting HIV or HCV?'" In the end, Dr. Nuñes suggests, the spirit of the conversation remains collaborative, advisory, and curious. "We want to affirm and reinforce the patient's concerns and their efforts to change, as opposed to an authoritative approach, which is the approach many healthcare professionals, including physicians, tend to take."

Suggest a Course of Action

IF THE PATIENT ACKNOWLEDGES CONCERN AND HINTS AT A WILLINGNESS to do something, Dr. Nuñes stressed that is important for clinicians to affirm the patient's concerns. "We want to educate patients in an affirmative way," he said. "Instead of saying 'you know this is bad for you' or 'you need to stop,' it's better to begin a response by saying 'it worries me too, and here's why...' Suggesting a quit attempt, or suggesting a reduction in the amount or frequency of use, is useful, as is suggesting counseling or treatment." If the patient is unconcerned or resistant to discussing the matter further—and there is reason to be concerned about a patient possibly dealing with substance abuse and/or dependency issues—physicians should gently assert their concerns. "The conversation should remain respectful and educational, letting the patient know that they will not be judged or criticized," he commented.

Dr. Nuñes stressed that Motivational Interviewing, in and of itself, is an effective intervention. "The ability of physicians to have this dialogue and to provide advice is a powerful tool. Beyond that, there is a variety of levels of care that are out there in the community for people with abuse and dependency issues. And what many patients dealing with substance abuse and dependency don't realize is that there are medications available to help them."

II. Office-Based Referral and Treatment

Treatments for Alcohol Abuse and Dependence

FOR ALCOHOL DEPENDENCY, THERE ARE DETOXIFICATION PROGRAMS—IF there is impending withdrawal—conducted in both inpatient and outpatient settings. A chlordiazepoxide (Librium) taper can be initiated to help limit the symptoms of withdrawal. "Most alcoholics don't need detox," Dr. Nuñes said. "They don't have serious withdrawal symptoms. You can get a sense of whether they're going to have serious withdrawal symptoms, either by the sheer volume of how much they're drinking or whether they have a history of DTs, blackouts, or other serious withdrawal symptoms. However, the average person who has been drinking a moderate amount, but can't quit or is getting drunk once in a while, doesn't need detox."

Outpatient treatment options include disulfiram (Antabuse). The basis of disulfiram's effects on alcohol intake is its inhibition of aldehyde dehydrogenase. Alcohol is metabolized to acetaldehyde and then to acetate, primarily in the liver. Because disulfiram inhibits aldehyde dehydrogenase, acetaldehyde levels increase in plasma. Acetaldehyde produces a variety of unpleasant side effects, including flushing, changes in blood pressure, and nausea. Disulfiram is primarily used to reinforce the patient's desire to stop drinking by providing a psychological deterrent to consuming alcohol that is then reinforced by an unpleasant response should alcohol be consumed. It has been in use for the treatment of alcoholism for close to 50 years. "Disulfiram is a very effective treatment if you can get the patient to take it, which usually means getting a family member or a significant other to make sure that the patient takes it every day," Dr. Nuñes explained. "If therapy can be monitored and the patient takes it every day, it's a terrific treatment."

Naltrexone (Revia) is a long-acting opioid antagonist approved for use in people who have been diagnosed as alcohol dependent, are medically stable, and are not currently (or recently) using opioids. It is intended to be used as an addition to psychosocial support to reduce the risk of relapse. It should not be been seen as a replacement of psychosocial interventions but rather as complementary.

"It's an effective treatment for alcohol dependence in some patients," Dr. Nuñes said. "It has a subtle effect. It will soon be available as a depot injection, branded as Vivitrol, which maintains adequate blood levels for approximately a month. In turn, it is particularly promising in primary care settings, which helps get around issues of compliance." But it doesn't work for everyone. "In some patients, naltrexone doesn't seem to help at all, whereas in others it seems to help quite a bit. So you would need to treat several patients before you would have a good chance of seeing somebody succeed with it. And for patients who do benefit from it, it's extremely gratifying."

Acamprosate (Campral) has been widely studied in European populations with alcoholism, but its mechanisms of action have not yet been clarified. "It's a 333 mg pill," Dr. Nuñes added. "It has a very short half-life, so it has to be taken three times a day. In turn, it's clear that compliance might be an issue. It's relatively well tolerated, with diarrhea and flatulence being the most common side effects." Dr. Nuñes also remarked that it can be safely combined with naltrexone. "You could give the depot naltrexone injection once a month and also prescribe the oral acamprosate."

Medical Treatments for Alcohol Abuse and Dependence

- Detoxification (if impending withdrawal)
  - Inpatient or outpatient (librium taper)
- Disulfiram (Antabuse)
- Naltrexone (Revia)
  - Vivitrol (depot naltrexone injection)
- Acamprosate (Campral)
- Treat co-occurring depression, anxiety, bipolar illness, etc.

Other issues to consider when treating alcohol abuse include concurrent depression, anxiety, and bipolar illness. "Sometimes patients who are drinking and taking other drugs are self-medicating depression, anxiety, or another psychiatric disorder. If the patient is at all cooperative, treating these psychiatric disorders with serotonergic drugs, or whatever the appropriate treatment is for a specific psychiatric disorder, can help the patient cut down or eliminate their alcohol use."

Opioid Dependence

ILLICIT OPIOID DEPENDENCE—AN ADDICTION TO HEROIN AND/OR prescription narcotic analgesics—is a complex illness. It is characterized by compulsive, at times uncontrollable drug craving, seeking, and use that persist even in the face of extremely negative consequences. For many people, opioid addiction becomes chronic, with relapses possible even after long periods of abstinence.

Medical Treatments for Opioid Abuse and Dependence

- Heroin, prescription narcotics analgesics
- Naloxone for overdose
- Detoxification (inpatient, outpatient)
- Methadone maintenance program
- Buprenorphine (office-based)
  - Training course, certificate
  - Detoxification or maintenance
- Naltrexone (antagonist)

Heroin releases an excess of dopamine in the body and causes users to need an opiate continuously occupying opioid receptors in the brain. Methadone, the most widely used treatment for opioid addiction, occupies these receptors and is the stabilizing factor that permits methadone patients to change their behavior and to discontinue heroin use.

Taken orally once a day, methadone suppresses narcotic withdrawal for between 24 and 36 hours. The dose of methadone dispensed depends on the goal of administration, whether it's detoxification or maintenance therapy. Withdrawal from methadone is much slower than from heroin. As a result, it is possible to maintain a patient on methadone without harsh side effects. Many methadone maintenance treatment (MMT) patients require continuous treatment, sometimes over a period of years (if not a lifetime). "It works by inducing tolerance," Dr. Nuñes added. "When it works, it engenders such tolerance that the opioid is blocked and the patient can't get high anymore on heroin, Oxycontin, or whatever it is they're taking. It helps to improve and normalize social functioning and reduces or eliminates the craving that characterizes prolonged opioid withdrawal. MMT is indicated for patients who have relapsed several times after prior treatment attempts."

MMT is not a cure for heroin addiction. As reviewed in "Buprenorphine and the Treatment of Opioid Addiction," a summary of a lecture

delivered by Dr. Sharon Stancliff and published in the March 2004 issue of *The PRN Notebook*, 80% to 90% of methadone patients who stop MMT will return to heroin use.

The passage of the Drug Addiction Treatment Act of 2000, which permits physicians who meet certain qualifications to treat opioid addiction with Schedule III, IV, and V narcotics approved by the FDA for such use, paved the way for buprenorphine to make its debut as an addition to methadone as a therapy for heroin addiction. Buprenorphine, a derivative of thebaine, is an opioid that has been marketed in the United States as the Schedule V parenteral analgesic Buprenex. In 2002, based on a reevaluation of available evidence regarding the potential for abuse, diversion, addiction, and side effects, the U.S. Drug Enforcement Agency reclassified buprenorphine from a Schedule V to a Schedule III narcotic.

Buprenorphine can be dispensed for the treatment of opioid addiction outside of an opioid treatment program, whereas methadone must still be administered in the setting of an opioid treatment program. Suboxone, a sublingual tablet, comes in two dosage forms: 2 mg buprenorphine/0.5 mg naloxone and 8 mg buprenorphine/2 mg naloxone. "Naloxone is the short-acting narcotic antagonist," Dr. Nuñes explained. "It's there to prevent people from grinding up the tablet for injection. If the patient grinds up the pill and injects the contents, the naloxone will precipitate withdrawal." Subutex, also a sublingual tablet that does not contain naloxone, is available in 2 mg and 8 mg strengths.

To practice opioid-addiction therapy with buprenorphine, physicians must meet certain criteria and must notify the Center for Substance Abuse Treatment—CSAT, a component of the Substance Abuse and Mental Health Services Administration (SAMHSA)—of his or her intent to begin dispensing or prescribing this treatment. This Notification of Intent must be submitted to CSAT before the initial dispensing or prescribing of opioid therapy. The Notification of Intent must contain information on the physician's qualifying credentials and other requirements, including the capacity to refer patients for appropriate counseling and that no more than 30 patients are to be treated with buprenorphine at one time. For physicians, such as primary care providers who do not hold subspeciality board certification in addiction medicine, completing eight hours or training provided by a specified medical organization is necessary.

The criteria and procedures for filing a Notification of Intent, along with a comprehensive review of buprenorphine-assisted opioid-addiction therapy, are available through the SAMHSA website: http://buprenorphine.samhsa.gov/bwns.

Buprenorphine has been evaluated as a treatment for opioid addiction in a number of clinical trials. In a recent Swedish study, 40 volunteers who had been dependent on opioids for at least a year, but did not fulfill Swedish legal critieria for MMT, were randomized to receive either daily buprenorphine (16 mg sublingually for 12 months) or a tapered six-day regimen of buprenorphine followed by placebo (Kakko, 2003). At the end of the study, urine screens, looking for illicit opiates, stimulants, cannabinoids, and benzodiazepines, remained negative in 75% of the buprenorphine patients, compared to 0% of placebo recipients. Also of note, four patients in the placebo group, versus no patients in the buprenorphine group, died before the completion of the study.

There is little data involving HIV-infected individuals receiving buprenorphine as a component of opioid-addiction treatment. However, there are some established considerations to keep in mind when prescribing buprenorphine for patients with HIV and other comorbidities. For example, in one study, increases in AST and ALT levels were documented in patients with hepatitis taking buprenorphine (Petry, 2000). Four cases of severe hepatitis have also been reported after injection of buprenorphine (Berson, 2001). There is also a possible relationship between buprenorphine and hyperlactatemia in HIV-infected individuals receiving antiretroviral therapy (Marceau, 2003).

"The tricky thing about buprenorphine is that the patient needs to be in the early stages of withdrawal before they receive their first dose," Dr. Nuñes said. "As this is a partial agonist, it will kick the opioid agonist off the receptors and precipitate withdrawal. If you wait until the patient begins to show some signs of withdrawal, there's no problem. If you give it to a patient and he or she gets sick rapidly, this means that you've precipitated withdrawal. If, however, you give it the patient and he or she feels gradually better over the next half hour or so, then you know you're all set."

Naltrexone, a long-acting narcotic antagonist, is also available for off-label use as a treatment of opioid dependency. The typical dose is 50mg a day. Dr. Nuñes noted that induction therapy is tricky; patients must be detoxified and abstinent before attempting naltrexone, otherwise it will precipitate withdrawal. Compliance to naltrexone therapy for opioid dependency has generally been poor except in narrow groups of patients with strong incentives not to relapse, for example parolees who will go back to jail if they relapse, or professionals who stand to lose their licenses. "Naltrexone, once it is available as a depot injection, may be a worthwhile option," he said. "Depot naltrexone will get around the daily opportunities for non-compliance with oral naltrexone."

Stimulant Dependency and Abuse

IN A SHOW OF HANDS OF THE PRN MEMBERSHIP ATTENDING DR. NUÑES' December lecture, stimulant abuse and dependency—most notably cocaine and methamphetamine—is a significant problem among HIV patient populations in New York. "There are no medications indicated for cocaine dependency," Dr. Nuñes pointed out. "As for methamphetamine, there's not much research involving medications to treat dependency to methamphetamine-based drugs."

Medical Treatments for Stimulant (Cocaine, Methamphetamine) Abuse and Dependence

- No proven medications
- Counseling, voucher incentives are effective
- Medications under investigation
  - Disulfiram (antabuse)
  - Topiramax (topamax)
  - Oral, long-acting stimulants
- Modafinil (Provigil)
- Dexedrine (e.g. Adderal XR)

There are, however, a number of possible agents being explored in clinical studies. For cocaine addiction, there is the possibility of disulfiram treatment. "Disulfiram seems to work in cocaine users who don't drink alcohol," Dr. Nuñes said. "In addition to impairing liver metabolism of alcohol, disulfiram may block enzymatic degradation of cocaine and dopamine, leading to extremely high cocaine and dopamine levels when cocaine is ingested. This may make the high less pleasant by increasing the anxiety typically associated with its use. There are now three published trials showing that disulfiram reduces cocaine use (Carroll, 2004, 1998; George, 2000).

The mesocortical dopamine system has been shown to play a key role in the reinforcing effects of cocaine. Mesocortical dopaminergic neurons receive modulatory inputs from both gamma-aminobutyric acid (GABA)-ergic and glutaminergic neurons. Primarily, GABA is an inhibitory neurotransmitter in the central nervous system, and activation of GABA-ergic neurons tends to decrease activation in the dopaminergic reward system.

One promising GABA-ergic medication is topiramate (Topamax).

Topiramate increases cerebral levels of GABA, facilitates GABA neurotransmission and inhibits glutamate neurotransmission through a blockade of AMPA/kainate receptors. In a 13-week, double-blind, placebo-controlled pilot trial of topiramate involving 40 (HIV-negative) volunteers with cocaine dependence, those treated with topiramate were significantly more likely to be abstinent during the last five weeks of the trial compared to participants treated with placebo (Kampman, 2004).

"Cocaine and methamphetamine share many of the same pharmacodynamic properties," Dr. Nuñes added. "Potentially useful treatments for cocaine addiction may also be potentially useful for the treatment of methamphetamine addiction."

Agonist replacement is another potentially useful approach. "Nicotine patches work for smoking and methadone and buprenorphine work for opioid dependence," Dr. Nuñes said. "Why not stimulants, such as dexedrine and methylphenidate, for the management of cocaine and methamphetamine addiction?"

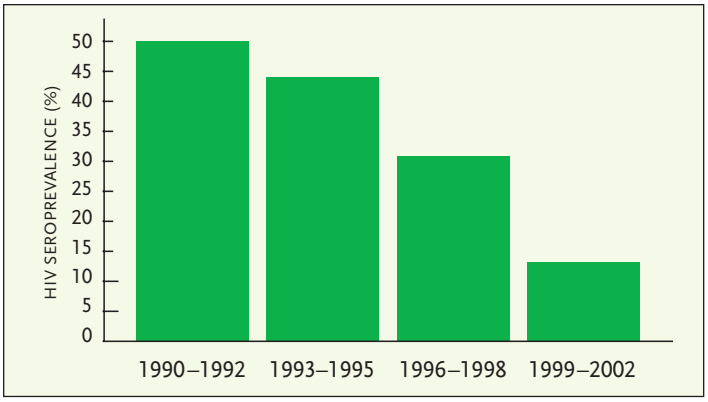

FIGURE 1. **HIV Seroprevalence Among Injectors**

There are data to suggest that syringe exchange programs (SEPs)—a major component of harm reduction efforts—really do work. Between 1990 and 1992, approximately 50% of intravenous drug users (IDUs) in New York were infected with HIV. Between 1993 and 1995, the seroprevalence rate among IDUs dropped to approximately 44%. Between 1996 and 1998, the rate dropped further to 31%. Between 1998 and 2004, the seroprevalence rate among IDUs dropped to approximately 13%.

Source: DesJarlais, 2005

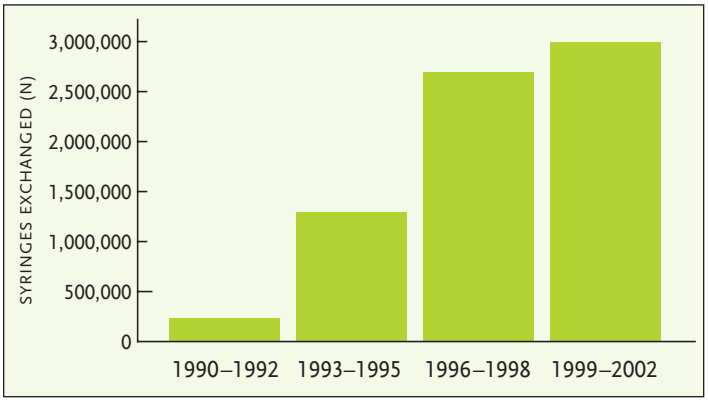

FIGURE 2. **Annual Numbers of Syringes Exchanged**

Syringe exchange programs (SEPs) are one of the strategies employed to prevent infection with HIV among injecting-drug users (IDUs). The goal of SEPs is to reduce the transmission of HIV and other bloodborne infections associated with reuse of blood-contaminated syringes for drug injection by providing sterile syringes in exchange for used, potentially contaminated syringes. From 1990 to 1992, the number of clean syringes exchanges in New York City was approximately 250,000 per year. From 1999 to 2002, the number of new syringes distributed by SEPs reached 3 million per year.

Source: DesJarlais, 2005

Medical Treatments for Cannabis Abuse and Dependence

- Motivation can be difficult (patients like it)
- Motivational Interviewing and counseling
- No medications proven effective
- Medications under investigation
  - Dronabinol (Marinol)
  - Maybe THC antagonists

Modafinil (Provigil) is an antinarcoleptic that enhances glutamate neurotransmission (Touret, 1994). In turn, it may be efficacious for cocaine dependence by ameliorating glutamate depletion seen in chronic cocaine users, thereby reducing cravings and relapses. There have also been preliminary studies suggesting that modafinil can block the euphoric effects of cocaine.

A double-blind, placebo-controlled trial of modafinil involving 62 participants who were cocaine dependent was reported last year (Dackis, 2005). Participants treated with modafinil submitted significantly more cocaine-metabolite-free urine samples compared to participants treated with placebo (42% versus 22%). They were also rated as more improved compared to placebo-treated participants.

A study of modafinil at Columbia University is enrolling HIV-infected gay men who are currently using crystal methamphetamine and want to stop. It is a four-month study in which volunteers will receive open-label modafinil for three months, along with four months of individual psychotherapy. There will be a one-month randomization to placebo or modafinil in the second half of the study. The psychotherapy incorporates motivational enhancement and cognitive-behavioral techniques. For additional information about either study, clinicians are urged to call either Judith Rabkin, PhD (212/543-5762), or Martin McElhiney, PhD (212/543-5331).

Medical Treatments for Nicotine Abuse and Dependence

- Almost universal among patients addicted to alcohol, other drugs
- Serious morbidity, mortality (but slowly)
- NCI, NHLB self-help guidelines
- Nicotine replacement (patch, gum)
- Buproprion (Zyban)
- Nortriptyline

Summation

IN SUMMARIZING HIS LECTURE, DR. NUÑES STRESSED THE IMPORTANCE of asking patients about their substance use, eliciting the patient's point of view and motivating the patient to engage in conversation, and suggesting a course of action. "Sometimes, offering brief advice or suggesting that monitoring substance use for the time being is an effective first step," he said. "Beyond that, physicians should be aware that many office-based medication treatments are available." Of course, Dr. Nuñes added, "medications work best when combined with counseling."

III. Saving Lives Through Harm Reduction

BUILDING ON A THEME THAT WAS TOUCHED UPON BY DR. EDWARD NUÑES in his talk on the clinical approaches to substance abuse in primary care, Allan Clear of the Harm Reduction Coalition stressed the importance of a key variable in dealing with substance-using patients: building relationships to facilitate dialogue and to promote healthy decision making. "The primary thing to remember is not to be judgmental," Mr.

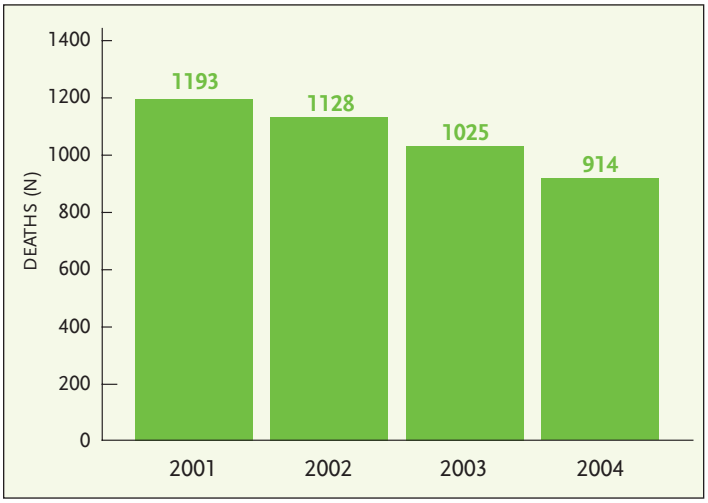

FIGURE 3. Deaths Among IDUs with HIV/AIDS, NYC, 2001–2004

Among persons with known and reported transmission risk, the number of deaths among intravenous drug-using people with HIV/AIDS has declined annually since HIV reporting began on June 1, 2000. In 2004, IDUs accounted for 23% of people living with HIV/AIDS, 9% of new HIV diagnoses, 18% of new AIDS diagnoses, and 42% of deaths. In 2001, 1,193 IDU people with HIV/AIDS died, compared to 914 IDUs with HIV/AIDS in 2004. This figure is based on data reported to the New York City Department of Health and Mental Hygiene by September 30, 2005.

Source: New York City Department of Health and Mental Hygiene, 2005.

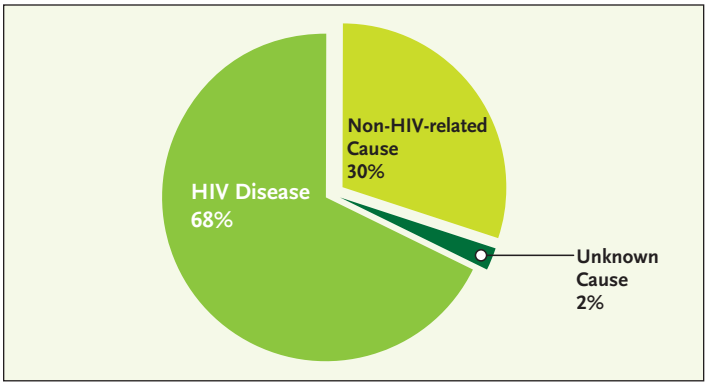

FIGURE 4. Causes of Death among IDUs with AIDS in NYC, 2004

As for causes of death among IDUs with HIV/AIDS in New York City in 2004, 30% were non-HIV-related, up from 8% in 1995. The most frequently occurring non-HIV-related causes of death among IDUs with HIV/AIDS were drug abuse/dependence (including drug overdose), ischemic heart disease, hepatitis C, lung cancer, and hypertension. This figure is based on data reported to the New York City Department of Health and Mental Hygiene by September 30, 2005.

Source: New York City Department of Health and Mental Hygiene, 2005.

Clear said. "Often our judgment comes through when we're talking to someone who we believe is using drugs. We want to steer them to a place where we are going to get them to be abstinent. Abstinence is our position; it's where we want them to be. However, it might not be where they want to go, or might not be where they're even able to go. So really what we are about is moving people to healthier positions and healthier behaviors. Effectively using Motivational Interviewing techniques can achieve this goal."

With respect to the prevention of HIV transmission and infection with other blood-borne viruses, the primary issue is reducing injection risk—wherever and whenever possible. However, Mr. Clear stressed, change in such behaviors is incremental and unlikely to happen without community-level intervention and a dramatic increase in access to syringes. "Real-world injection scenarios are infinitely more complicated than public health messages, and require ongoing conversations and support," he said.

Proof is in the Programs

THERE ARE DATA TO SUGGEST THAT SYRINGE EXCHANGE PROGRAMS (SEPS)—a major component of harm reduction efforts—really do work (see Figures 1 and 2 on page 25). Between 1990 and 1992, approximately 50% of intravenous drug users (IDUs) in New York were infected with HIV. Between 1993 and 1995, the seroprevalence rate among IDUs dropped to approximately 44%. Between 1996 and 1998, the rate dropped further to 31%. Between 1998 and 2004, the seroprevalence rate among IDUs dropped to approximately 13%. "These data really blow me away," Mr. Clear said. "We've really done an amazing job in HIV prevention for injection drug users."

According to data from the New York City Department of Health and Mental Hygiene (DOHMH), the number of deaths among intravenous drug-using people with HIV/AIDS has declined annually since HIV reporting began on June 1, 2000 (see Figure 3). In 2004, IDUs accounted for 23% of people living with HIV/AIDS, 9% of new HIV diagnoses, 18% of new AIDS diagnoses, and 42% of deaths. In 2001, 1,193 IDU people with HIV/AIDS died, compared to 914 IDUs with HIV/AIDS in 2004. "Although the numbers of HIV positive drug users has declined, their deaths represent a disproportionate amount of deaths among people with AIDS and we need to do better," said Mr. Clear.

As for causes of death among IDUs with HIV/AIDS in New York City in 2004, 30% were non-HIV-related, up from 8% in 1995 (see Figure 4). The most frequently occurring non-HIV-related causes of death among IDUs with HIV/AIDS were drug abuse/dependence (including drug overdose), ischemic heart disease, hepatitis C, lung cancer, and hypertension. "We can deal with many of these problems," Mr. Clear said. "We can definitely begin addressing hepatitis C. More doctors need to be thinking about hepatitis C and the treatment of hepatitis C for drug users."

Prevention

EFFORTS TO PREVENT THE TRANSMISSION OF BLOOD-BORNE VIRAL infections must take into consideration the natural history of intravenous drug use, which can be broken down into four stages: pre-injection drug use, initiation of injection drug use, during injection drug use, and the end of injection drug use. "There's a place where we can intervene at all times," Mr. Clear remarked.

Pre-Injection Prevention

WITH PRE-INJECTION PREVENTION, THE GOAL IS TO TARGET PREVENTION efforts toward drug users who have not yet transitioned into injection drug users. "We essentially want to provide education for potential initiators," Mr. Clear said. "What we're trying to do is to steer them away from injection drug use, using fact- and science-based information."

One of the methods of educating drug users who have not yet transitioned to IDUs is to work directly with people who already inject. "People learn to inject from people who already inject," he explained. "It's not

peer pressure. It's people seeing people inject and then asking about how to do it. Most drug users probably regret having a life of injection drug use. So to appeal to the altruistic nature of drugs users—perhaps telling them not to inject in front of others, as this may pique the interest of those who have not transitioned to injection drug use—is a noteworthy goal. We can also reach out to non-injectors through current injectors, possibly steering them away from injection drug use or educating them about safe injection techniques. We also know that the older an individual is when he or she begins to inject, the safer their injection techniques. Delaying onset of injection is also an important HIV/HCV prevention strategy."

Prevention with Active Injectors

THE KEY PREVENTION MESSAGE WITH ACTIVE IDUS IS SAFE INJECTION. "We need clean syringes through every venue possible," Mr. Clear said. "Pharmacists, needle-exchange programs, and doctors' offices all need to be able to supply syringes to injectors."

Getting active users to recognize that it is blood—not needles, per se—that is responsible for disease spread is important. "The goal here is to educate users that they should always try to avoid contact with other people's blood," he explained. "We ask users to think of all the ways blood can be present during the injection process and their own routine."

Prevention messages include suggesting IDUs mark their needles and not to share needles with others. Using a separate source of water, and talking about cottons and cookers, is also of importance. "Whenever possible, it is important to stress that IDUs take control of their own injections. Having another person administer the injection significantly increases the chance of infection, particularly with HCV."

Encouraging active users to switch from injection to safer routes of administration is also valuable. "Here we can talk about substitute prescribing, including the use of methadone, buprenorphine, dexamphetamine, and prescribed heroin," Mr. Clear commented. "In Europe, they've been prescribing amphetamines for amphetamine users for a long time. In turn, we see disease go down and more stability. Users don't have any of the same complications related to using street-based drugs. Substituting a prescribed opioid for street heroin delivers with less risk."

With respect to heroin use, recommending sniffing, smoking, or squirting it into the rectum is a feasible tactic. Switching from injection drug use to smoking or snorting heroin, even infrequently, can help reduce infection spread and prevent injection-related problems. Inserting heroin into the rectum—"Up Your Bum" was the name of an IDU campaign in the United Kingdom—is another alternative. "I'll admit, it wasn't very popular," Mr. Clear said. "But it does work. If an injection drug user has lost all of his or her veins, taking the needle off and using the syringe to squirt it into the anus is a useful suggestion."

Communication and Respect: The Cornerstone of Harm Reduction

MR. CLEAR PASSIONATELY ARGUED THAT THE GREATEST BENEFIT THAT clinicians can provide to drug users is a consciousness surrounding their drug use. "We want to be able to work through their drug use with them," he said. "Let them think about how they use drugs, in what manner they use the drugs, why they use drugs, who they use drugs with, and where they buy their drugs.

"I'm going to be somewhat judgmental here, but it's hard for people who have gone through medical school and training for years and years to admit they actually don't know everything about what's going on," he continued. "Drug users have often been out there for years and years in another kind of environment learning a lot about drugs. In effect, we need to learn from drug users about what goes on in their lives."

The concept of ambivalence among drug-using individuals is a slippery slope. "I think most drug users who are strung out, or have struggled with their drug use, are not ambivalent about wanting to change their behavior. They don't really want that pain. They don't really want that crisis going on in their lives. However, there is ambivalence about drugs. On some days, drugs work really well for people and there's a lot of pleasure involved in it. However, pleasure is only one part of it. I think we negate the fact that they provide a lot of pain relief—pain of all kinds. We need to work through people's ambivalence about the balance of drugs—the role the drugs play in their lives—whether it's good or bad. When someone acknowledges that they are in a negative relationship with drugs, then we can work out how they can change that relationship."

A profound point raised by Mr. Clear is the need for a healthier approach in dealing with the drug use and abuse. "I think we've internalized drug use and what it means," he said. "Drug users have certainly done this. They have learned over the years that they're pieces of shit, that they have no value. This is something we very much need to turn around."

Treatment Issues

PRESCRIBED TREATMENTS, SUCH AS METHADONE AND BUPRENORPHINE, are available and have a proven track record of efficacy. There are a number of benefits for opioid users in treatment. These include using heroin less frequently, sharing fewer needles, less involvement in crime, improved social interactions, reduced HIV seroconversion, improved compliance with medical therapy for other medical conditions, and a reduced danger of a fatal overdose.

In concluding his lecture, Mr. Clear stressed that an integrated approach to healthcare is very much needed when dealing with injection drug users. Reducing the risk of blood-borne viruses and soft-tissue infections, by way of prescribing clean needles and educating users about safer injection methods, is one important aspect. Overdose prevention is another necessary consideration. "Naloxone will be available in April 2006 for this purpose," he said. "Providing patients with naloxone prescriptions, to protect themselves and others against a fatal overdose, is an important advance." Addiction medicine, including methadone maintenance and buprenorphine therapy, is another significant component of harm reduction that is extremely well suited for clinical settings. Finally, there are educational needs that extend beyond injection drug use, including alcohol, smoking, nutrition, and a host of social support needs. "It's not just about HIV," Mr. Clear noted. "For a lot of people, HIV is not on their radar screens at times. They may have a number of even more pressing issues, such as abscesses, housing problems, or troubles in their family relationships. Really working to find out what's going on with your drug-using patients, and working with them to find solutions, is the basis of integrated care." *prn*

Addiction Medicine: Resources

- American Academy of Addiction Psychiatry (**AAAP.org**)
- American Osteopathic Academy of Addiction Medicine (**AOAAM.org**)
- American Society of Addiction Medicine (**ASAM.org**)
- National Institute on Drug Abuse (**nida.nih.gov**)
- National Institute on Alcoholism and Alcohol Abuse (**niaaa.nih.gov**)

PRINCIPLES OF HARM REDUCTION

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. Harm reduction strategies meet drug users "where they're at," addressing conditions of use along with the use itself.

Because harm reduction demands that interventions and policies designed to serve drug users reflect specific individual and community needs, there is no universal definition of or formula for implementing harm reduction. However, HRC considers the following principles central to harm reduction practice.

- Accepts, for better and for worse, that licit and illicit drug use is part of our world and chooses to work to minimize its harmful effects rather than simply ignore or condemn them.
- Understands drug use as a complex, multi-faceted phenomenon that encompasses a continuum of behaviors from severe abuse to total abstinence, and acknowledges that some ways of using drugs are clearly safer than others.
- Establishes quality of individual and community life and well-being—not necessarily cessation of all drug use—as the criteria for successful interventions and policies.
- Calls for the non-judgmental, non-coercive provision of services and resources to people who use drugs and the communities in which they live in order to assist them in reducing attendant harm.
- Ensures that drug users and those with a history of drug use routinely have a real voice in the creation of programs and policies designed to serve them.
- Affirms drugs users themselves as the primary agents of reducing the harm of their drug use, and seeks to empower users to share information and support each other in strategies which meet their actual conditions of use.
- Recognizes that 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.
- Does not attempt to minimize or ignore the real and tragic harm and danger associated with licit and illicit drug use.

The Need for Harm Reduction

It is clear that most current approaches to drug use and drug-related problems help only a tiny fraction of those individuals who use illicit drugs. Drug-related problems continue to baffle communities across the country, leaving them feeling frustrated and hopeless in their ability to respond to the harm they experience in any effective way. Harm reduction works to redress the following injustices, among others:

- There is a shocking lack of basic services that, if in place, would significantly help reduce drug-related harm. Many locales throughout the United States still have no needle exchange programs or over-the-counter sale of injection equipment as an HIV prevention measure, for example, and there are no methadone maintenance treatment programs at all in nearly one-fifth of the United States.
- A lack of universal health care and a movement toward privatization and managed care threaten to reduce or eliminate altogether some of the few therapeutic services—particularly drug treatment—that currently do exist for users of illicit drugs.
- The federal government spends approximately two-thirds of its drug intervention dollars on incarceration and prosecution and only about a third on drug education, prevention, research, and treatment combined.
- Most therapeutic services for drug users, including drug treatment, are designed to serve the priorities of providers instead of the needs of consumers. Drug education and prevention campaigns are largely ineffective, attempting to scare people away from using drugs instead of equipping them with accurate information about drugs and drug use, including their adverse and harmful effects.
- Current drug control strategies criminalize a huge proportion of the country's population. Since 1980, the number of adults incarcerated in state and federal prisons, local jails, and on probation or parole has more than tripled, with one-third of this expansion due to an increase in the number of drug law violators put behind bars. Women, African-Americans, and Latino/as have been disproportionately affected.
- The HIV epidemic has killed hundreds of thousands of people in the United States and continues to rage on. Swift public policy changes and the implementation of critical services could have prevented an untold number of deaths and HIV infections among injection drug users, their sexual partners, and children. *prn*

Source: Harm Reduction Coalition (**www.harmreduction.org**)

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