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National Association of Drug Court Professionals

need to Know

Increased Opiate Use and the Need for Onsite Heroin Screening

*By **Connie Mardis,** M.Ed.*

The availability of illicit drugs in the United States continues to increase. More than 25 million individuals age 12 or older reported using an illicit drug or using a controlled prescription drug non-medically in 2008 (NDIC, 2010). The prescribed or illicit use of controlled prescription drugs can impact the client population and screening practices of Drug Courts across the country.

Complicating the issue of testing for opiates legitimately prescribed for pain relief is the number of people misusing opioids. According to the U.S. Drug Enforcement Agency (DEA), nearly 7 million Americans are abusing prescription drugs, with one in 10 high school seniors admitting to abusing pills. Michele Leonhart, administrator of the DEA has called abuse of prescription pain relievers the gateway drug to heroin addiction, especially among the young.

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"As they turn to these opiates, they become heroin addicts," Leonhart said. "…in full addiction, it is cheaper and easier for them to get heroin on the street than it is to continue to get pills" (Leonhart, 2011).

Because of the addiction issue, there is an increased prevalence of opioid users in treatment court. Drug Court professionals need to know that an opiate screening test detects the presence of opioids, but cannot differentiate a positive result caused by heroin use from that of an opioid prescribed for pain relief. Sending out positive opiate screens for confirmation of the presence of opiate vs heroin by gas chromatography/mass spectrometry (GC-MS) can be costly and time-consuming (Snyder, 2011).

The heroin problem is not confined to urban populations in a few large cities. "We're a small town of 1,700 in the middle of nowhere – farmers, fishermen and hunters - yet it's easy and inexpensive to get a bag of heroin here for $10 to $15," says Victor Montgomery III, MAEd., CMAC, RAS, an addiction specialist and primary therapist in the idyllic Finger Lakes region of upstate New York.

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Author of *Healing Suicidal Veterans: Recognizing, Supporting and Answering their Pleas for Help*, Montgomery's experience stretches over 20 years. "I've been on the frontlines of addiction and have practiced on both coasts," says Montgomery. "Heroin is on the rise. It is an epidemic all over the world and throughout this country" (Montgomery, 2011).

What is heroin and why has it staged such a comeback after a parade of celebrity deaths had caused its popularity to wane? This Need to Know Brief will examine America's heroin resurgence and present the experience of a Court Laboratory that screens in-house for 6-Acetylmorphine (6-AM), a heroin metabolite in urine that specifically identifies or detects the illicit use of heroin.

What is heroin and why is its use increasing?

Heroin is a powerful opioid analgesic that is highly addictive. It is produced from morphine, a principal component of opium. Opium is naturally occurring and found in the seedpod of the opium poppy. It is smuggled into America from Afghanistan, Myanmar and Mexico (UNODC, 2010).

Mr. Montgomery notes that some users mistakenly assume that because heroin is produced from a natural, organic substance and has been used and abused since antiquity, it is safer than crystal meth

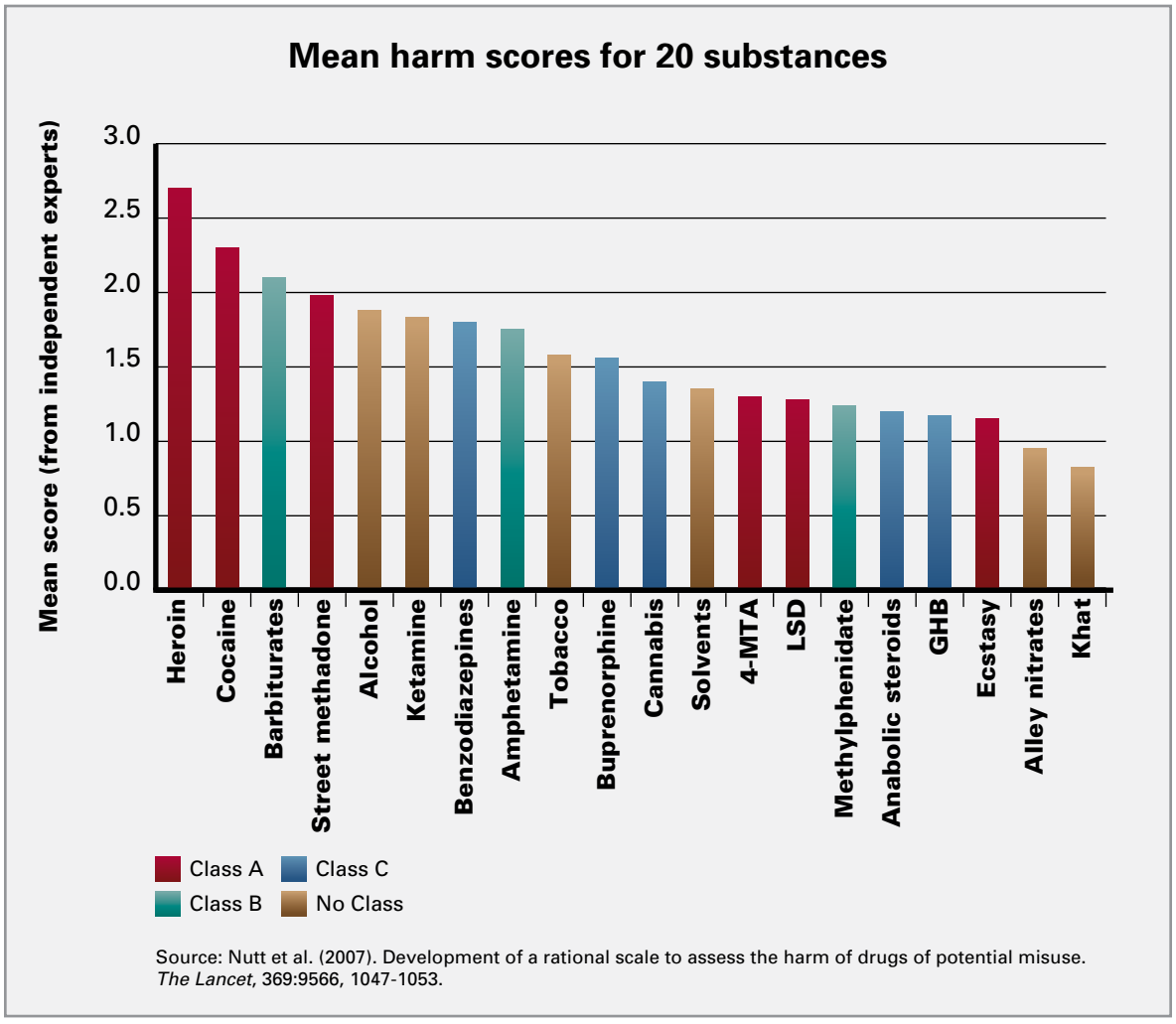

Figure 1: Mean harm scores for 20 substances
Classification under the Misuse of Drugs Act, where appropriate is shown by the colour of each bar.

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cooked up from a toxic brew of household chemicals (Montgomery, 2011). Heroin is far from safe and can be addictive from the first use (Davis, 2010).

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Heroin has been rated by the British Medical Journal Lancet as the most addictive and most harmful of the legal and illegal drugs commonly abused (see Figure 1). The survey published in The Lancet was carried out by eminent scientists and rated drugs for harm in three categories; physical harm, dependence, and social harm.

With a surge in Mexican production of heroin in recent years (see Figure 2) and a distribution network of drug gangs, heroin is becoming easier to find and less expensive than misuse of prescription painkillers.

In New Orleans, high school students can now buy enough heroin to get high for hours for the price of a Happy Meal™. "$20 worth of heroin is enough to get a new user high for two days," says Arun Rahman, a former National Merit Scholarship finalist whose gateway drug was marijuana at age 13, then Vicodin, codeine, Ecstacy, and cocaine before becoming addicted to heroin at 17. Mr. Rahman was interviewed just four days out of court-ordered rehab that cost his parents $36,000 (Davis, 2010).

In years past, heroin was only consumed by injection and that was a deterrent for many who did not want the social stigma and risks of using needles to take drugs. Also the high-profile celebrity deaths of heroin users Billie Holiday, Jimi Hendrix, Janis Joplin, Sid Vicious, John Belushi, River Phoenix and Kurt Cobain served as a warning of the dangers of injecting heroin to the baby boomer generation.

Today, according to the NDIC, "Many new, younger users begin by snorting or smoking heroin and often mistakenly believe that snorting or smoking heroin will not lead to addiction. Users who snort or smoke heroin at times graduate to injection because as their bodies become conditioned to the drug, the effects it produces are less intense. They then turn to injection—a more efficient means of administering the drug—to try to attain the more intense effects they experienced when they began using the drug. Both new and experienced users risk overdosing on heroin because it is impossible for them to know the purity of the heroin they are using."

The World Drug Report 2010 notes that, "more than 15 million people worldwide consume illicit opiates (opium, morphine and heroin). The large majority use heroin, the most lethal form. More users die each year from problems related to heroin use, and more are forced to seek treatment for addiction, than for any other illicit drug. Among illicit narcotics, opiates are also the most costly in terms of treatment, medical care and, arguably, drug-related violence. In addition, heroin is the drug most associated with addiction, which brings about a host of acute and chronic health problems, including the transmission of blood-borne diseases such as HIV/AIDS and Hepatitis C. In Central Asia, Ukraine and the Russian Federation, injecting opiates is linked to nearly 60-70% of all HIV infections."

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Heroin is a Schedule 1 substance under the Controlled Substances Act. Schedule 1 drugs have a high potential for abuse and serve no legitimate medical purpose (NDIC, 2003). There are very severe penalties for the use and sale of heroin. State laws vary, but most states subscribe to the Uniform Narcotics Act which makes heroin convictions a felony.

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6-Acetylmorphine: An accurate, onsite screening test for Heroin

Heroin use has traditionally been identified by an opiate screen and then confirming for 6-AM by GC/MS. Heroin quickly metabolizes into 6-AM. As a heroin metabolite, the presence of 6-AM in urine specifically identifies or detects the illicit use of heroin. 6-AM is not produced metabolically in humans from either codeine or morphine. A positive 6-AM differentiates heroin use from prescription drug use (Morjana, 2010).

Effective October 1, 2010, the Substance Abuse and Mental Health Services Administration (SAMHSA) has new mandatory guidelines that require 6-Acetylmorphine (6-AM) as part of the initial screening for all federally mandated workplace drug testing specimens.[1]

Court Laboratory experience with 6-AM Testing

Though the Cuyahoga County Court of Common Pleas Laboratory in Cleveland, Ohio is not a SAMHSA lab, Laboratory Manager Ann Snyder MBA, MT(ASCP) SH, screens for 6-AM. "Statistics are showing heroin use is increasing, and the cost of the drug is evidently going down," notes Ms. Snyder (Snyder, 2011).

Indeed on January 13, 2011, a 30 year-old heroin dealer was arrested in North Olmsted, a town of 31,000 near Cleveland. That arrest led agents to discover a multi-state drug distribution network being supplied by a Mexican drug ring (Krouse, 2011).

The Cuyahoga County Court of Common Pleas Laboratory supports a caseload of 28,000 clients from the criminal justice system, serving drug and municipal courts, parole departments and juvenile court probation. About 100,000 specimens per year are submitted to the laboratory, which runs on average 400-500 specimens/day.

"We began testing for 6-AM by immunoassay in 2002 on specimens that were positive for opiates (cutoff 300 ng/mL). About 2 years ago we observed positive for 6-AM tests in the presence of negative opiate screens. That prompted us to begin testing for 6-AM on all specimens with opiate tests before the SAMHSA guidelines were announced," says Ms. Snyder. "Bringing the 6-AM test in house is absolutely economical, because otherwise the only way to identify heroin users is by sending out our positive opioid samples for GC-MS, which is very costly and has a turnaround time of 4-5 days."

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Current instrumented, onsite immunoassay methods are accurate, specific and efficient. One example can deliver results in as little as 11 minutes and has a 98% agreement with GC-MS. With a cutoff of 10 ng/mL, the reagents provide qualitative and semi-quantitative results utilizing a monoclonal antibody to ensure accuracy and specificity. (Morjana, 2010) With severe criminal penalties at stake for heroin offenders, confidence in results is a key consideration. Emit technology has been cited as a defensible technology in a Supreme Court ruling.[2]

[1] Federal Register, Vol. 73, No. 228, November 25, 2008
[2] National Treasury Employees Union v, Von Raab, 109 S. Ct. 1384 (1989)

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Drug Courts using the 6-Acetylmorphine test now have the tools to directly screen for heroin use in their onsite testing program. Onsite testing combined with data management and reporting:

- Eliminates manual, subjective methods
- Can improve workflow and efficiency
- Can save time and prevent costly transcription errors with instant uploads of test results

The value of rapid turnaround tests for Drug Courts to review the outcome of testing was addressed in *All Rise* magazine by the Honorable James G. Blanchard, Jr., Superior Court Judge of the Augusta Judicial Circuit. "The success of our court depends upon holding all participants accountable for their conduct. We…no longer wait days for the lab report before we implement a treatment program and sanction for violation of our rules" (Mardis, 2011).

NDIC believes the availability of heroin will increase, largely the result of increased Mexican drug production. Heroin use is now reported as a greater drug threat than controlled prescription drugs (see Figure 3). Heroin is highly addictive, can lead to acute and chronic health conditions such as HIV/AIDS and Hepatitis C, and carries severe criminal penalties for use.

Drug Court professionals need to be aware if a client is experimenting with heroin to augment prescribed opiates, or has transitioned to heroin as a drug of choice and is at risk of becoming a heroin addict while in their programs.

As a case management and supervision tool, instrumented 6-Acetylmorphine is a convenient, accurate onsite method for detecting the heroin metabolite in urine, and meets the SAMHSA guidelines for federal workplace testing (Morjana, 2010).

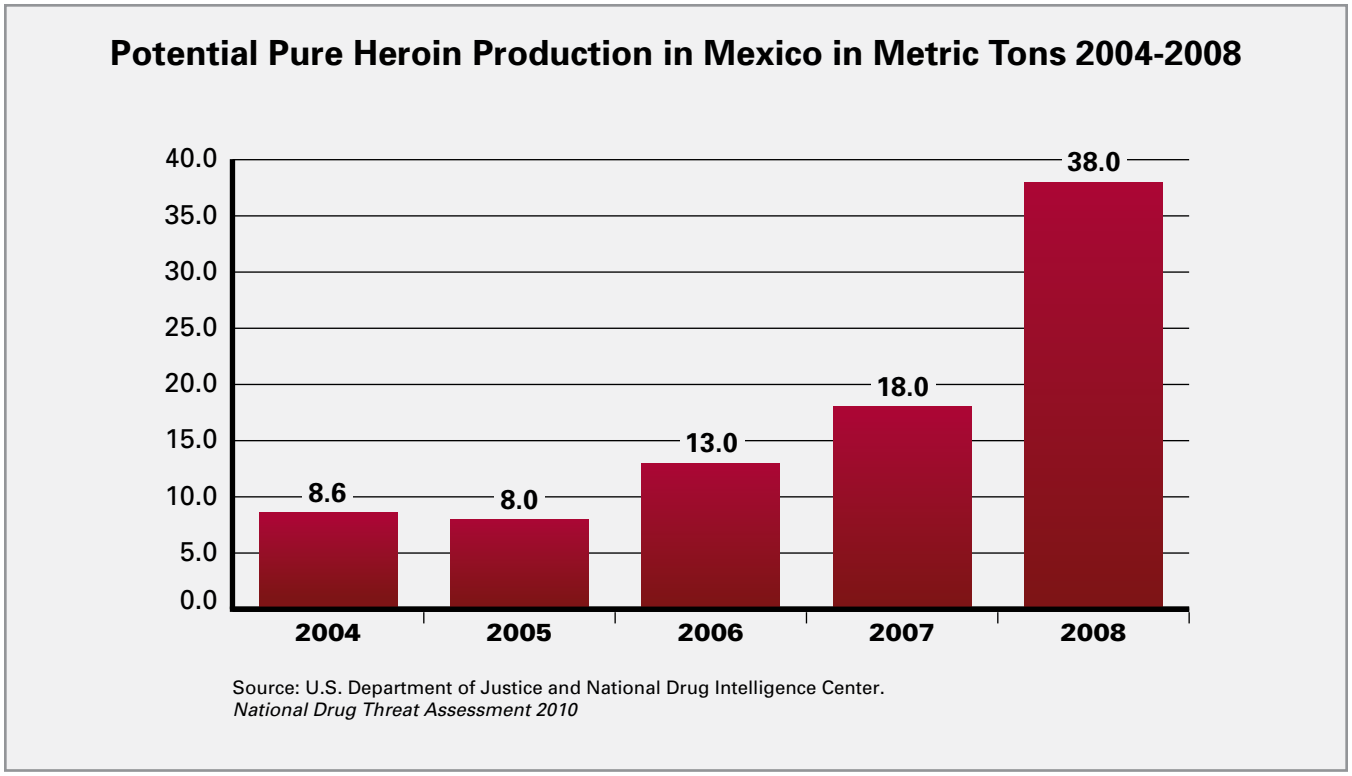

Figure 2: Potential Pure Heroin Production in Mexico in Metric Tons 2004-2008

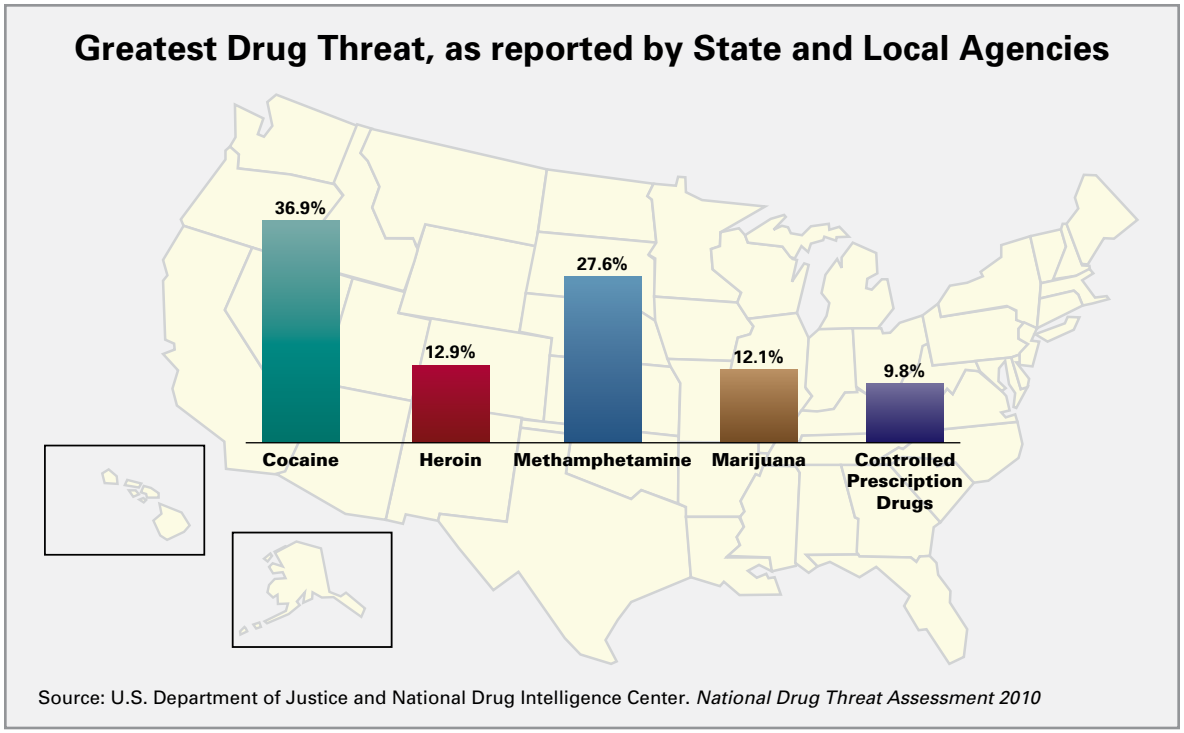

Figure 3: Greatest Drug Threat, as reported by State and Local Agencies

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Author Disclosure: Ms. Mardis is Director, Global Marketing Education at Siemens Healthcare Diagnostics. www.usa.siemens.com/drugtesting.

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About NADCP

It takes innovation, teamwork and strong judicial leadership to achieve success when addressing drug-using offenders in a community. That's why since 1994 the National Association of Drug Court Professionals (NADCP) has worked tirelessly at the national, state and local level to create and enhance Drug Courts, which use a combination of accountability and treatment to compel and support drug-using offenders to change their lives.

Now an international movement, Drug Courts are the shining example of what works in the justice system. Today, there are over 2,500 Drug Courts operating in the U.S., and another thirteen countries have implemented the model. Drug Courts are widely applied to adult criminal cases, juvenile delinquency and truancy cases, and family court cases involving parents at risk of losing custody of their children due to substance abuse.

Drug Court improves communities by successfully getting offenders clean and sober and stopping drug-related crime, reuniting broken families, intervening with juveniles before they embark on a debilitating life of addiction and crime, and reducing impaired driving.

In the 20 years since the first Drug Court was founded in Miami/Dade County, Florida, more research has been published on the effects of Drug Courts than on virtually all other criminal justice programs combined. The scientific community has put Drug Courts under a microscope and concluded that Drug Courts significantly reduce drug abuse and crime and do so at far less expense than any other justice strategy.

Such success has empowered NADCP to champion new generations of the Drug Court model. These include Veterans Treatment Courts, Reentry Courts, and Mental Health Courts, among others. Veterans Treatment Courts, for example, link critical services and provide the structure needed for veterans who are involved in the justice system due to substance abuse or mental illness to resume life after combat. Reentry Courts assist individuals leaving our nation's jails and prisons to succeed on probation or parole and avoid a recurrence of drug abuse and crime. And Mental Health Courts monitor those with mental illness who find their way into the justice system, many times only because of their illness.

Today, the award-winning NADCP is the premier national membership, training, and advocacy organization for the Drug Court model, representing over 27,000 multi-disciplinary justice professionals and community leaders. NADCP hosts the largest annual training conference on drugs and crime in the nation and provides 130 training and technical assistance events each year through its professional service branches, the **National Drug Court Institute,** the **National Center for DWI Courts** and **Justice for Vets: The National Veterans Treatment Court Clearinghouse.** NADCP publishes numerous scholastic and practitioner publications critical to the growth and fidelity of the Drug Court model and works tirelessly in the media, on Capitol Hill, and in state legislatures to improve the response of the American justice system to substance-abusing and mentally ill offenders through policy, legislation, and appropriations.

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