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**National Drug Intelligence Center**  
***National Drug Threat Assessment 2008***  
**October 2007**

## Heroin

### Overview

Heroin is readily available in most large metropolitan areas and, increasingly, in some suburban and rural markets throughout the country. Abuse levels are stable at relatively low levels; however, abuse is increasing among young adults in a number of suburban and rural areas. Abuse is generally concentrated in the Northeast, where the drug is most available. The majority of the heroin consumed in eastern markets of the United States is South American, and the availability of other forms of white heroin (Southwest Asian and Southeast Asian) is limited. Abuse of prescription narcotics as a precursor to heroin among adolescents is an emerging concern to law enforcement and public health officials. Also of concern is the abuse of cheese heroin--a combination of Mexican black tar heroin and over-the-counter pain relievers that contain diphenhydramine HCl--which has been encountered in a small number of areas.

### Strategic Findings

- Overall decreases in retail purity of South American heroin and increasing retail purity of Mexican heroin may aid Mexican DTOs in expanding Mexican heroin distribution.
- Colombian DTOs increasingly rely on Mexican DTOs to smuggle South American heroin into the United States.
- The availability of Southwest Asian heroin in the United States is at a low level and will very likely remain so in the near term.
- Southeast Asian heroin remains available in certain U.S. drug markets; however, availability is limited and appears to be declining.
- Expanded opium poppy cultivation and decreased eradication in Mexico have resulted in a significant increase in the potential amount of Mexican heroin destined for the United States.
- Deaths occasioned by the abuse of fentanyl (often used in combination with heroin) have decreased sharply since spring 2006.
- The abuse of cheese heroin, which has contributed to numerous

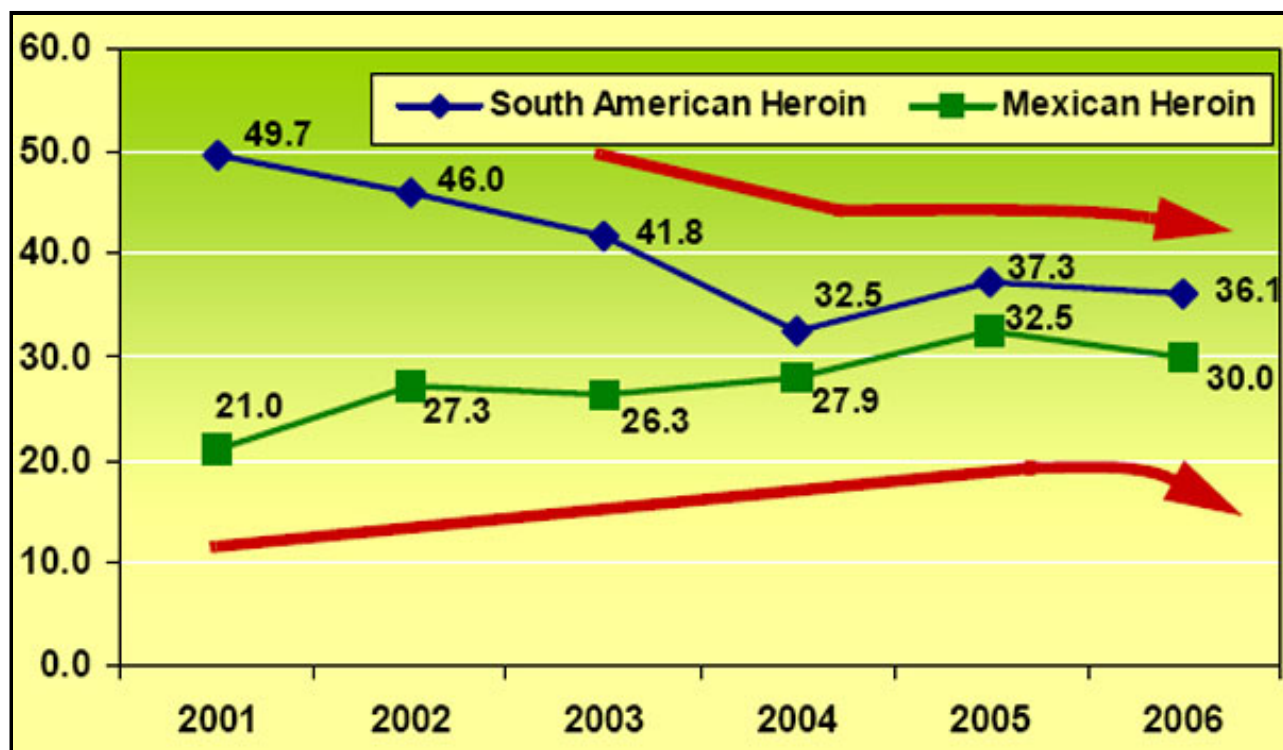
overdose deaths in Dallas, Texas, since 2005, has emerged in a few other drug markets.

***Overall decreases in retail purity of South American heroin and increasing retail purity of Mexican heroin may aid Mexican DTOs in expanding Mexican heroin distribution.*** Drug Enforcement Administration (DEA)

Heroin Domestic Monitor Program (HDMP)<sup>11</sup> data show that South American heroin average retail purity has typically been much higher than that of Mexican heroin; however, recent declines in South American heroin purity and increases in Mexican heroin purity have narrowed the gap considerably. According to HDMP data, South American heroin purity decreased from 49.7 percent in 2001 to 36.1 percent in 2006, while Mexican heroin purity increased over that same period from 21.0 percent to 30.0 percent (see [Chart 2](#)). The cause of the decreasing South American retail heroin purity is unclear. Nevertheless, the increased purity may enable Mexican DTOs to market Mexican heroin in traditional South American heroin strongholds.

**Chart 2. South American and Mexican Retail Heroin Purity, by Percentage, 2001-2006**

The percentages of retail heroin purity of South American and Mexican heroin have nearly converged and now show only a 6.1 percent difference in purity.



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Source: Heroin Domestic Monitor Program, 2006.

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***Colombian DTOs increasingly rely on Mexican DTOs to smuggle South American heroin into the United States.*** Colombian DTOs typically employ

couriers on commercial flights and, to a lesser extent, cruise ships to smuggle South American heroin into the United States; however, they are increasingly contracting with Mexican DTOs to smuggle the drug overland across the Southwest Border and then on to U.S. drug markets. According to law enforcement reporting and 2006 POE seizure data, the majority of the South American heroin available in domestic markets is transported by individual couriers on commercial aircraft destined for U.S. international airports, particularly John F. Kennedy International Airport and Miami International Airport (see [Table 3](#)).<sup>12</sup> However, law enforcement reporting reveals that Colombian organizations increasingly employ Mexican DTOs to transport South American heroin on their behalf. For instance, intelligence reporting from the Middle Atlantic-Great Lakes Organized Crime Law Enforcement Network (MAGLOCLLEN) indicates that Colombian DTOs are contracting with Mexican DTOs to transport heroin from the Southwest Border to Colombian criminal groups in eastern drug markets, such as New York City. As payment, Mexican DTOs receive transportation fees from the Colombian DTOs in cash or by wire after the heroin is delivered by the Mexican organization. Mexican DTOs typically transport the South American heroin in vehicles, on buses and trains, and on commercial aircraft through southern California, South Texas, and West Texas POEs using the overland routes that they had established to transport cocaine as well as Mexican marijuana, methamphetamine, and heroin; they often use low-level couriers in doing so.

**Table 3. Top 10 Ports of Entry for Heroin Seizures, in Kilograms, 2005 and 2006 Combined**

Port of Entry	Seizure Amount	Seizure Events
<b>New York Airports (JFK International and LaGuardia)*</b>	634.6	243
<b>Miami International Airport</b>	238.6	135
<b>Laredo POE</b>	166.9	35
<b>El Paso POE</b>	126.9	21
<b>San Ysidro POE</b>	118.4	17
<b>San Juan Port</b>	126.6	2
<b>Newark Liberty International Airport</b>	84.8	48
<b>Nogales POE</b>	68.4	28
<b>Memphis International Airport</b>	62.9	21
<b>Fort Lauderdale International Airport</b>	37.6	21

Source: National Seizure System.

\* Most seizures were made at JFK International Airport.

*The availability of Southwest Asian heroin in the United States is at a low level and will very likely remain so in the near term.* Southwest Asian heroin remains available in some U.S. heroin markets, primarily large metropolitan areas, including Chicago, Detroit, St. Louis, Atlanta, and New York City; availability appears to have increased marginally in recent years. Data from HDMP for 2000 through 2006 support this contention, indicating that Southwest Asian heroin is available only in limited quantities in a certain

number of markets throughout the country and that availability in those markets has remained consistent in recent years.

Analysis of law enforcement and intelligence reporting indicates that despite significant increased opium production in Afghanistan (see [Table 4](#)), the availability of Southwest Asian heroin in the United States will quite likely remain at a low level for the near term. The amount of South American heroin produced appears sufficient to supply the demand for white powder heroin in the United States. Colombian and Dominican traffickers--and, increasingly, Mexican traffickers--maintain well-established transportation and distribution networks to ensure a consistent flow of South American heroin to U.S. markets. Conversely, transportation and distribution networks that would be necessary to significantly increase the availability of Southwest Asian heroin in the United States appear limited at present. A significant interruption in the availability of high-purity South American heroin could present the opportunity for increased availability of Southwest Asian heroin in the United States, especially given potentially higher returns for traffickers from U.S. sales of cheaper Southwest Asian drugs.

**Table 4. Potential Worldwide Heroin Production, in Metric Tons, 2002-2006**

**Heroin production in Mexico appears to be increasing. Decreases in production were noted in Southeast Asian countries (Burma, Laos, Thailand, and Vietnam)**

	2002	2003	2004	2005	2006
<b>Mexico</b>	6.8	11.9	8.6	8.0	12.7
<b>Colombia</b>	8.5	7.8	3.8	*	4.6
<b>Afghanistan</b>	150.0	337.0	582.0	526.6	664.0
<b>Burma</b>	60.0	46.0	31.5	36.0	22.0
<b>Laos</b>	17.0	19.0	5.0	2.7	1.0
<b>Pakistan</b>	0.5	5.2	NA	3.8	4.2
<b>Thailand</b>	0.9	NA	NA	NA	NA
<b>Vietnam</b>	1.0	NA	NA	NA	0.0
<b>Guatemala</b>	NA	NA	1.4	0.4	NA
<b>Total</b>	<b>244.7</b>	<b>426.9</b>	<b>632.3</b>	<b>577.5</b>	<b>708.5</b>

Source: Crime and Narcotics Center.

NA-not available

\* CNC did not report an estimate for Colombia in 2005.

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***Southeast Asian heroin remains available in certain U.S. drug markets; however, availability is limited and appears to be declining.*** Southeast Asian heroin is available on a limited basis in a limited number of markets in the

eastern United States such as Baltimore, New York City, and Washington, D.C., where white heroin is most commonly abused. However, the availability of South American heroin far surpasses that of Southeast Asian heroin in these markets, and availability of Southeast Asian heroin appears to be declining. Southeast Asian heroin prices have increased, while retail purity has decreased. Moreover, the level of potential heroin production in Southeast Asian nations (Burma, Laos, Thailand, and Vietnam) has significantly decreased overall during the past 5 years (see [Table 4](#)). As such, it is unlikely that Southeast Asian heroin availability will increase in the near term.

***Expanded opium poppy cultivation and decreased eradication in Mexico have resulted in a significant increase in the potential amount of Mexican heroin destined for the United States.*** Opium cultivation and heroin production in Mexico increased significantly from 2005 to 2006. According to Central Intelligence Agency (CIA) production estimates, 5,100 hectares of opium poppy were cultivated in Mexico in 2006, a significant increase over the 3,300 hectares cultivated in 2005. Most of this new opium poppy cultivation was concentrated in the northern areas of Mexico, where the climate allows for a greater yield of opium gum per hectare. In northern Mexico, opium cultivators yield 23 kilograms of opium gum per hectare, compared with 19 kilograms of opium gum per hectare in southern Mexico. Further, between 2005 and 2006, opium eradication decreased in Mexico. While the Mexican Government's eradication efforts continued to fall within set guidelines, eradication decreased 22 percent from 21,609 hectares in 2005 to 16,831 hectares in 2006. This decline in eradication, occurring at the same time as increased opium cultivation, led to a 59 percent increase in potential Mexican heroin production levels. (See [Table 4](#).) Most of the heroin produced was transported to the United States for distribution.

***Deaths occasioned by the abuse of fentanyl (often used in combination with heroin) have decreased sharply since spring 2006.*** Overdoses from the abuse of fentanyl combinations have occurred periodically in various areas of the United States for many years; however, no fentanyl overdose outbreaks have been as geographically diverse and long-lasting as the outbreak that began in late 2005, peaked in May 2006, and then receded sharply. During this outbreak many distributors mixed fentanyl with heroin and sold the combination, often to unsuspecting heroin users. Fentanyl also was mixed with other substances, including cocaine.<sup>13</sup> Health departments/medical examiner offices reporting the highest numbers of fentanyl-related overdose deaths during that period include offices in Illinois (362), Pennsylvania (260), Michigan (212), and New Jersey (139). Additionally, DEA data show that there were 972 confirmed fentanyl-related deaths in six jurisdictions and 162 suspected fentanyl-related deaths in other jurisdictions during the time frame of this outbreak. (A few of the deaths may have involved prescription fentanyl administered in combination with heroin, although most health department and law enforcement officials believe that the majority of deaths did, in fact, involve clandestinely produced fentanyl that was combined with heroin and sold to heroin users.) Throughout the first half of 2007, the number of reported fentanyl-related deaths decreased, and by June most state health departments in areas that had been affected by the outbreak reported that the number of fentanyl-related deaths had dropped back to pre-2005 levels.



***The abuse of cheese heroin, which has contributed to numerous overdose deaths in Dallas, Texas, since 2005, has emerged in a few other drug markets.*** The abuse of cheese heroin (a black tar heroin/diphenhydramine mixture) in the Dallas area has contributed to as many as 22 deaths in Dallas County since 2005. The deaths were not initially attributed to cheese heroin, but when reports of increasing abuse emerged in April 2007, the Dallas County Medical Examiner's office reexamined heroin-related overdose deaths in decedents aged 18 and younger and discovered the presence of a significant amount of diphenhydramine in 22 cases. The Medical Examiner's office is currently reexamining heroin-related overdose deaths from the last 10 years in order to locate additional cases of heroin-diphenhydramine combinations. In response to this trend, some stores in the Dallas area have stopped selling products containing diphenhydramine, and others have placed diphenhydramine products behind the prescription drug counter and are requiring customers to produce identification before purchasing the product.

There are no current reports of widespread cheese heroin abuse outside the Dallas area; however, in March the Boulder County, Colorado, Drug Task Force reported that novice heroin abusers were crushing over-the-counter pain relief tablets containing acetaminophen and diphenhydramine, mixing them into black tar heroin, and snorting the mixture. In July the Shreveport, Louisiana, Police Department seized 77 grams of cheese heroin from a local heroin distributor. Treatment officials in Ohio report that young adults who abuse heroin sometimes also abuse diphenhydramine-based medications in an effort to prolong their heroin high. These abusers generally consume the diphenhydramine separately and do not mix it into the heroin.

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## **Intelligence Gaps**

***The percentage of U.S. market share held by each of the four types of heroin (South American, Southeast Asian, Southwest Asian, and Mexican) is somewhat unclear.*** No program currently exists that is designed to produce a nationally representative sample of heroin available in the United States.

Data from the Heroin Signature Program (HSP)<sup>14</sup> and HDMP do, however, provide indicators of changes in the geographic origin of heroin supplying U.S. heroin users.

## **Predictive Estimates**

***Southeast Asian heroin availability may decrease in the near term.***

Southeast Asian heroin availability is currently limited to few U.S. markets, and South American heroin is far more commonly abused in white heroin markets. Further, purity levels of Southeast Asian heroin are declining while prices are rising, making this type of heroin less attractive to consumers. Significant declines in heroin production in Southeast Asian nations, accompanied by rising costs and declining purity, indicate that availability of Southeast Asian heroin may decrease in U.S. markets.

***Widespread abuse of cheese heroin will most likely not expand beyond the Dallas area; however, occasional copycat incidents may occur.*** Since the extensive media coverage of the cheese heroin overdoses in Dallas, communities in the area have commenced an expansive information campaign and have taken steps to limit the availability of diphenhydramine-based products to minors. Subsequently, very few incidents of cheese heroin abuse have been reported outside the Dallas area, and cheese-related overdose incidents have significantly declined. Further occurrences of cheese distribution and abuse will most likely be limited to isolated incidents or to distributors using the name "cheese" in order to exploit media coverage of the Dallas trend.

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## End Notes

- [11.](#) The Drug Enforcement Administration (DEA) Heroin Domestic Monitor Program (HDMP) is a heroin purchase program designed to identify the purity, price, and source of origin of heroin available at the retail level in 28 major U.S. metropolitan markets. Heroin samples, obtained from undercover purchases, are submitted to the program and are subject to in-depth chemical analysis at the DEA Special Testing and Research Laboratory in order to determine the purity and, if possible, the geographic source area of the heroin.
- [12.](#) The heroin seized at the New York airports and at the Miami, Newark, Memphis, and Fort Lauderdale airports was almost entirely white heroin, the vast majority of which came from South America.
- [13.](#) Law enforcement data regarding fentanyl-related deaths show that more than 50 percent of subjects who died had tested positive for cocaine, suggesting that many of the subjects may have used a lethal fentanyl/cocaine combination.
- [14.](#) The DEA Heroin Signature Program (HSP) is designed to provide indicators of the geographic origins of heroin at the wholesale level. Samples are drawn primarily from port of entry (POE) seizures, as well as from a random sample of other seizures and purchases submitted to DEA laboratories, and are analyzed by the DEA Special Testing and Research Laboratory to determine the purity and, if possible, the geographic source area of the heroin.
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