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DEA  
INTELLIGENCE  
REPORT



# 2013 Heroin Domestic Monitor Program

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## MESSAGE FROM THE CHIEF OF INTELLIGENCE

This report presents data and conclusions from the Heroin Domestic Monitor Program (HDMP) conducted by the Drug Enforcement Administration (DEA) for calendar year (CY) 2013. The HDMP provides data on the price, purity, and geographic source of heroin sold at the retail-level in 27 U.S. cities. The data contained in this report are based on actual undercover heroin purchases made by DEA and its law enforcement partners on the streets of these cities.

While the U.S. heroin retail market remains roughly divided by the Mississippi River, with Mexican black tar and brown powder heroin dominating west of the Mississippi and white powder heroin from South America more common in the east, HDMP statistics for 2013 indicate that Mexico maintains a slight edge over South America as the primary source of the heroin sold at the retail-level in the United States. In 2013, Southwest Asian heroin continued to account for only a small portion of HDMP exhibits with its availability limited primarily to east coast markets such as Boston, Massachusetts; Baltimore, Maryland; and Washington, DC. In 2013, and for the eighth consecutive year, no Southeast Asian heroin samples were purchased through the HDMP.

Since its inception in 1979, DEA's Heroin Domestic Monitor Program has proven to be a valuable indicator for detecting trends and changes in retail-level heroin trafficking. The HDMP remains an important assessment and analytical tool for drug policymakers, law enforcement authorities, and drug abuse researchers throughout the nation.



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## Executive Summary

The Heroin Domestic Monitor Program (HDMP), a retail-level heroin purchase program, provides data analysis about the price, purity, and geographic source of heroin sold at the retail (street) level in 27 U.S. cities. In 2013, a total of 699 qualified samples were purchased. Of those samples, 357 were classified as Mexican (MEX) heroin (293 MEX and 64 alleged Mexican white (See Figure 1)), 334 were classified as South American (SA) heroin, and 8 were classified as Southwest Asian (SWA) heroin. During 2013, for the eighth consecutive year, no Southeast Asian (SEA) heroin samples were purchased through the HDMP.

The 2013 HDMP data indicate that Mexico was the primary source of the heroin sold at the retail-level in the United States and continued to dominate drug markets west of the Mississippi River. In 2013, MEX heroin had the lowest recorded average purity in the HDMP at 16.9 percent, a decrease of 0.7 percentage points<sup>a</sup> from 2012. MEX heroin average price per milligram pure decreased to \$1.12<sup>b</sup> in 2013 from the 2012 price of \$1.40 per milligram pure. However, alleged Mexican white heroin samples exhibited the highest average purity in the program at 35.5 percent with an average price of \$1.21 per milligram pure. Eighty-nine percent of alleged Mexican white heroin samples were purchased east of the Mississippi River.

In 2013, HDMP data indicated that heroin exhibits classified as an “Unknown” (UNK) signature were encountered most often in the eastern and Midwestern United States where SA heroin typically dominates the market. Of particular interest is the fact that 57 of the 64 (89.1 percent) heroin exhibits classified as UNK which displayed the characteristics of “alleged Mexican white” heroin were purchased east of the Mississippi River, in cities identified as traditional SA heroin markets. These cities include Atlanta, Baltimore, Boston, Chicago, Detroit, Miami, New Orleans, New York City, Newark, Orlando, Philadelphia, Pittsburgh, Richmond, St. Louis, and Washington, DC. This is likely an indication that the current retail heroin market in each of these cities is in transition and that Mexican drug trafficking organizations (DTOs) continue to expand their role in white heroin markets.

South America remained the primary source of heroin available east of the Mississippi River. HDMP data revealed SA heroin average purity in the program at 35.1 percent, a slight decrease of 0.2 percentage points from 2012. HDMP data further indicated that the average price per milligram pure for SA heroin decreased in 2013 to \$1.04, a decline from the 2012 price of \$1.15 per milligram pure.

### Figure 1: New Formal Signature for Mexican White Heroin

Since the inception of the HDMP, the formal signature for Mexico has encompassed both brown and black tar Mexican produced heroin. Over the last several years however, DEA's Special Testing and Research Laboratory (SFL1) has tracked the phenomenon of alleged Mexican white powder heroin (AMW) produced from opium harvested in Mexico. Please note that a new formal signature for Mexican white powder i.e. “MEX-SA” (indicating Mexican origin for heroin samples with South American processing) was established by SFL1 on May 1, 2015. For the 2013 HDMP annual report however, the terms “unknowns” and alleged Mexican white” will continue to be used to characterize these exhibits. Retroactive analysis of 2013 HDMP exhibits for the purpose of assigning the new signature is not possible as these exhibits have been destroyed. Nevertheless, SFL1 analysis indicates that Mexico is the sole source of this new type of heroin therefore 2013 HDMP exhibits classified as “alleged Mexican white” are incorporated into the overall MEX heroin signature analysis statistics outlined in the 2013 HDMP assessment of retail heroin availability.

<sup>a</sup> A percentage point is a unit expressing the arithmetic difference between two percentages, e.g., a decline of one percentage point would be a decrease from 10 percent to 9 percent. (A complete list of other definitions is available in Appendix C.)

<sup>b</sup> All prices are listed in U.S. dollars throughout the paper.



SWA heroin continued to account for only a small portion of HDMP exhibits (8 of 699 exhibits). HDMP data revealed that the average purity of SWA heroin increased in 2013 to 23 percent, an increase of 4.4 percentage points from 2012. SWA heroin's retail price of \$1.23 per milligram pure was the highest average price recorded in the HDMP for the year and represents an increase of 0.13 percentage points from 2012. SWA heroin exhibits were purchased in Boston; Baltimore; and Washington, DC.

Exhibits classified as UNK were purchased in all but four of the HDMP cities. Heroin exhibits are classified as UNK when their signature profiles are inconsistent with the signature profiles of authentic heroin samples<sup>c</sup> collected from the four geographic source regions: Mexico, South America, Southeast Asia, and Southwest Asia.

Comparison of 2007 HDMP data to 2013 data reflected a 23.4 percent decrease in exhibits whose signature was classified as UNK by the DEA Special Testing and Research Laboratory (SFL1). In 2007, 171 HDMP exhibits were classified as UNK, while in 2013 that number decreased to 131 which include alleged Mexican white heroin. In 2013, Miami; Atlanta; and Philadelphia all experienced notable increases in heroin exhibits whose geographic source of origin was classified as UNK. The number of UNK signature exhibits purchased in Detroit and New York City remained consistent with the numbers reported in the HDMP 2012 report and other cities such as Baltimore; Chicago; St. Louis; and Washington, DC, all experienced notable decreases. However, approximately 50 percent of the exhibits classified as UNK in 2013 displayed the characteristics of alleged Mexican white heroin. While South America remained the primary source of heroin available east of the Mississippi River; 89 percent of alleged Mexican white heroin exhibits were purchased east of the Mississippi River.

## Introduction

The HDMP, a retail-level heroin purchase program, collects data on the price, purity, and geographic origin of street level heroin available in major metropolitan areas of the United States. Each quarter, the DEA Intelligence Division provides funding for the purchase of retail (street level) heroin samples in 27 metropolitan areas. Each purchase is submitted for in-depth chemical analysis at the DEA SFL1.

The goal of the HDMP is to provide federal, state, and local law enforcement authorities, as well as drug policy makers and drug abuse researchers, with information regarding the domestic heroin problem at the street level. HDMP data analyses reveal changes in heroin availability, price and purity, adulterants and diluents, use patterns, and marketing practices. Through Heroin Signature Analysis<sup>d</sup>, SFL1 also determines the geographic origin of each qualified heroin sample submitted to the program.

Since its inception more than 30 years ago, the HDMP has proved a valuable and reliable indicator for the detection of trends in U.S. retail-level heroin trafficking. The program also has provided accurate assessments of the fluctuations in the domestic retail availability of heroin sourced from each of the major heroin source areas – Mexico, South America, Southeast Asia, and Southwest Asia. Most recently, HDMP data have tracked the increasing presence of alleged Mexican white powder heroin available at the retail-level, particularly in the East and Midwest sections of the United States. In years past, the HDMP also documented the increased availability in the early to mid-1980s of SEA heroin at the retail-level in a number of U.S. cities; further documented significant increases in the mid-1990s in the amount of SA heroin available at the retail-level, particularly in the key metropolitan

<sup>c</sup> An authentic heroin sample met at least one of the following criteria: 1) a heroin exhibit seized in heroin producing countries; 2) a heroin exhibit seized in a heroin/opium processing laboratory in a heroin/opium source country; 3) a heroin exhibit transported directly to the United States from a source country and seized at a U.S. land, sea, or airport port of entry.

<sup>d</sup> Heroin signature analysis is a program developed by the DEA to identify the geographic source area of a heroin sample. Heroin signature analysis is based on exhaustive chemical profiles of authentic samples acquired from each of the four major heroin source areas: Mexico, South America, Southeast Asia, and Southwest Asia.

heroin markets of the northeastern United States; and, in the early 2000s, HDMP program data highlighted the growth in competitive drug markets containing heroin from multiple geographic sources.

The HDMP was initiated in DEA's New York Division in 1979 and, to this day, particular attention is paid to HDMP results for New York City as it remains one of the most prominent heroin destination and distribution centers in the United States. Between 1979 and 1991, the number of DEA offices that participated in the HDMP fluctuated between 6 and 12. In 1991, DEA expanded the HDMP to include one city in each of the DEA 21 domestic divisions. Between 1995 and 1999, Baltimore; Orlando; and El Paso joined as program participants. San Antonio and Richmond were added as participants in early 2003. In 2006, the program was expanded further to include Pittsburgh; Minneapolis; and Portland, Oregon. In January 2010, the El Paso Division transferred the program from El Paso, Texas to Albuquerque, New Mexico, and in September 2011, Minneapolis-St. Paul was removed from the HDMP.

As previously noted, the HDMP is conducted in 27 metropolitan areas, as opposed to nationwide sampling. Consequently, attempts to calculate a national average for price and purity cannot be extrapolated solely from program results because the sampling reflects local user preferences and market availability. The dynamics of the local heroin market are unique to each metropolitan area; the 2013 HDMP data accurately reflect long-term local trends as well as changes in price per milligram pure and purity in the participating cities.

## Qualified Samples

The DEA offices in most cities where the HDMP is conducted are tasked with 10 street-level heroin purchases per quarter, or a total of 40 purchases per year. In New York City however, 15 purchases are made per quarter, a total of 60 per year. The following cities purchase only five exhibits per quarter, a total of 20 per year: Albuquerque; Houston; Orlando; Pittsburgh; Portland; Richmond; and San Antonio. In 2013, Houston's purchases were reduced from 10 purchases per quarter to five purchases per quarter, in part because the Houston heroin market is traditionally MEX. Typically, 980 heroin samples were scheduled to be purchased during 2013 as part of the HDMP; however, due to budgetary restrictions during the middle part of 2013, only 851 heroin samples were funded.

The total number of samples included in HDMP analysis varies year to year based on a number of factors. For example, some purchased exhibits are determined to contain no controlled substance; some are determined to contain another controlled substance such as cocaine; and others, while containing heroin, do not include a sufficient amount to allow for geographic signature classification. In a number of instances, the results of the geographic origin analysis are inconclusive. Such samples are not included in this report. Those that are included in the yearly HDMP analysis are deemed "qualified samples," signifying that price, purity, and geographic source data could be determined for the exhibit.

## Exhibits Classified as Unknown

Each year, hundreds of heroin exhibits are purchased through the HDMP. The SFL1 analyzes these exhibits to determine the price, purity, and geographic source of origin. Heroin exhibits are classified as UNK when their signature profiles are not consistent with the signature profiles of authentic heroin samples collected from the four geographic source regions (Mexico, South America, Southeast Asia, and Southwest Asia). According to the SFL1, since heroin is manufactured through a series of chemical processing steps, signature analysis is expected to result in a certain number of exhibits whose signature is UNK or undetermined. Generally, 4 to 7 percent of heroin exhibits that result in a signature that is UNK or undetermined is considered the norm.



SFL1 continues to classify a significant number of heroin samples as UNK signature exhibits and in 2013, a total of 131 such heroin exhibits were purchased through the HDMP. Of these samples, 107 were purchased east of the Mississippi River and 24 were purchased west of the Mississippi River. Sixty-four of the UNK signature exhibits displayed the characteristics of alleged Mexican white heroin with an average purity of 35.5 percent and cost an average of \$1.21 per milligram pure. There were 35 UNK signature exhibits analyzed by the SFL1 that demonstrated a mixed profile of SA and MEX heroin. The mixed profiles and other UNK exhibits had an average purity of 24.2 percent and cost an average of \$2 per milligram pure. UNK signature heroin exhibits purchased in Newark, New Jersey during 2013 showed the highest average purity at 60.6 percent, while in San Juan, 1 UNK signature exhibit reflected the lowest purity at 2.3 percent. UNK signature heroin exhibits purchased in Philadelphia and Atlanta had relatively high purity levels of 58.3 percent and 52.3 percent, respectively. During 2013, one UNK heroin signature exhibit purchased in San Juan, Puerto Rico reflected the highest price per milligram pure at \$21.74, while an UNK signature heroin exhibit purchased in Albuquerque, New Mexico showed the lowest recorded price per milligram pure of \$0.26 (see Table 1).

The HDMP data from 2007 compared against 2013 data reflected a 23.4 percent decrease in heroin exhibits whose signature was classified as UNK by the SFL1. In 2007, 171 HDMP exhibits were classified as UNK, while in 2013, that number decreased to 131 to include alleged Mexican white heroin.

Signature analysis and other reporting indicate a significant number of these UNK heroin samples show similar characteristics or profiles that may indicate two possible scenarios:

- White heroin production in Mexico using the South American processing method.
- Mixing of SA and MEX heroin by traffickers.

Both of the possibilities noted above suggest that Mexican DTOs are expanding their white heroin trafficking operations into markets traditionally dominated by SA heroin. SFL1 analysis of 2013 HDMP data reflects that 64 of the 131 (48.9 percent) heroin exhibits

(U) Table 1: 2013 Source of Origin Unknown: Heroin Counts, Purities, Prices, Origin, and City by Geographic Region			
*UNKNOWN HEROIN			
EAST	NUMBER OF SAMPLES	PURITY	PRICE
ATLANTA	2	52.3%	\$1.39
BALTIMORE	3	13.6	0.45
BOSTON	4	20.1	0.82
CHICAGO	6	8.8	0.51
DETROIT	2	25.2	0.87
MIAMI	3	7.5	4.01
NEW ORLEANS	1	7.0	5.95
NEW YORK	8	33.4	1.75
NEWARK	2	60.6	1.18
ORLANDO	—	—	—
PHILADELPHIA	8	58.3	0.44
PITTSBURGH	3	24.9	1.43
RICHMOND	2	18.7	2.17
SAN JUAN	1	2.3	21.74
WASHINGTON, DC	5	14.1	1.91
*UNKNOWN HEROIN			
WEST	NUMBER OF SAMPLES	PURITY	PRICE
ALBUQUERQUE	1	35.5%	\$0.26
DALLAS	—	—	—
DENVER	1	16.6	3.35
HOUSTON	5	2.7	4.87
LOS ANGELES	2	26.9	0.71
PHOENIX	4	19.6	0.84
PORTLAND	—	—	—
SAN ANTONIO	—	—	—
SAN DIEGO	1	18	0.75
SAN FRANCISCO	—	—	—
SEATTLE	2	3.7	1.12
ST. LOUIS	1	2.5	8.42
TOTAL	67	24.2%	\$2.00

\*Unknown Heroin: Does not include Alleged Mexican White Heroin.

Prereport Parameters: Only Unknown samples are shown. January 1 to December 31, 2013.

Price Unit: Per milligram pure.

Raw Data: Outliers were not omitted.

(An outlier is an element of a data set that distinctly stands out or "lies outside" most of the values in a set of data. For the purposes of the HDMP, outliers are heroin samples that have a purity of less than 0.5 percent, or a price greater than \$16.00 per milligram pure. Outliers are not used in the calculation of HDMP averages or included in trends.)

classified as UNK displayed the characteristics of “alleged Mexican white” heroin. These exhibits were purchased in Atlanta; Baltimore; Boston; Chicago; Detroit; Miami; Newark; New Orleans; New York City; Orlando; Philadelphia; Pittsburgh; Richmond; St. Louis; and Washington, DC. Additionally, 35 UNK signature exhibits analyzed by the SFL1 demonstrated a mixed profile of SA and MEX heroin. These exhibits were purchased in Baltimore, Boston, Chicago, Detroit, Newark, New York City, Philadelphia, Pittsburgh, Richmond, and Washington, DC. The presence of UNK signature heroin in cities where SA heroin has been the predominant type of heroin available for years is likely an indication that the current retail heroin market in each of these HDMP cities is in transition.

## 2013 HDMP Results

### GENERAL

In 2013, a total of 699 qualified samples were purchased under the HDMP. Of those samples, 357 were classified as MEX heroin (293 MEX and 64 alleged Mexican white), 334 were classified as SA heroin, and eight were classified as SWA heroin. In 2013, and for the eighth consecutive year, no SEA heroin samples were purchased through the HDMP.

According to 2013 HDMP data, MEX heroin showed the lowest average purity at 16.9 percent while alleged Mexican white heroin samples exhibited the highest average purity in the program at 35.5 percent. SA heroin samples exhibited an average purity at 35.1 percent. SWA heroin averaged 23 percent pure during 2013. MEX samples reflected an average price per milligram pure at \$1.12. The average price per milligram pure for alleged Mexican white, SA, and SWA heroin was \$1.21, \$1.04, and \$1.23, respectively.

From 2012 to 2013, the average price per milligram pure of MEX heroin decreased \$0.28, while the average purity of MEX heroin decreased from 17.6 percent in 2012 to 16.9 percent in 2013. The average price per milligram pure of SA heroin decreased \$0.11 in 2013, from the 2012 price of \$1.15 per milligram pure. In 2013, the average purity of SA heroin decreased 0.2 percentage points. The purity of SWA heroin increased from 18.6 percent in 2012 to 23 percent in 2013, while the average price per milligram pure increased from \$1.10 in 2012 to \$1.23 in 2013.

(U) Table 2. Heroin Samples: Origins, Purities, and Prices

HEROIN SOURCES	2009	2010	2011	2012	2013
<b>SOUTH AMERICA SAMPLES</b>	341	346	323	375	334
<b>SOUTH AMERICA PERCENT PURE</b>	33.6%	25.9%	31.1%	35.3%	35.1%
<b>SOUTH AMERICA PRICE PER MILLIGRAM PURE</b>	\$1.28	\$1.75	\$1.18	\$1.15	\$1.04
<b>MEXICO SAMPLES</b>	322	309	296	339	293
<b>MEXICO PERCENT PURE</b>	24.7%	14.7%	16.8%	17.6%	16.9%
<b>MEXICO PRICE PER MILLIGRAM PURE</b>	\$1.11	\$2.00	\$1.35	\$1.40	\$1.12
<b>ALLEGED MEXICO WHITE SAMPLES</b>	N/A	N/A	N/A	N/A	64
<b>ALLEGED MEXICO WHITE PERCENT PURE</b>	N/A	N/A	N/A	N/A	35.5
<b>ALLEGED MEXICO WHITE PRICE PER MILLIGRAM PURE</b>	N/A	N/A	N/A	N/A	\$1.21
<b>SOUTHWEST ASIA SAMPLES</b>	31	39	23	12	8
<b>SOUTHWEST ASIA PERCENT PURE</b>	15.8%	20.9%	12.3%	18.6%	23%
<b>SOUTHWEST ASIA PRICE PER MILLIGRAM PURE</b>	\$1.94	\$1.21	\$1.66	\$1.10	\$1.23

N/A: Not Available

Table 2 reflects 2013 values for heroin price and purity by source area and includes price and purity values for the period 2009 through 2013, inclusive. The figures in Table 3 (see page 15) reflect the characteristics of heroin purchased in the 27 unique heroin markets sampled by the HDMP. The values shown in both tables are “snapshots” and are not representative of national averages.

## Heroin Adulterants and Diluents

Heroin (diacetylmorphine) is produced from morphine by a chemical process known as acetylation. The morphine is extracted from opium, which is derived from the opium poppy plant (*Papaver somniferum L.*). Adulterants are impurities in the final product that are carried over from the opium poppy plant or the extracted opium (such as morphine), substances that are produced as by-products during heroin processing (such as monoacetylmorphine), or substances that are added during the heroin processing to modify the character of the heroin (such as quinine). Adulterants have physiological effects of their own and may be added in order to enhance or mimic the effects of the heroin. Diluents are pharmacologically inactive substances such as lactose, mannitol, starch, and sucrose, added to the heroin to increase bulk, i.e., cutting agents.

### SA ADULTERANTS & DILUENTS

- Analysis of 2013 HDMP exhibits identified caffeine as one of the most commonly used adulterants for SA heroin and was present in 40 percent of the HDMP SA heroin exhibits. Approximately 23 percent of SA HDMP exhibits analyzed in 2013 were unadulterated. A few SA heroin exhibits contained adulterants such as diphenhydramine (12 percent), acetaminophen (6 percent), quinine (5 percent), and benzocaine (5 percent). Diltiazem, procaine, lidocaine, thiamine, and aspirin were also routinely detected. The most common diluent identified in SA heroin exhibits was mannitol (identified in 44 percent of the exhibits), followed by lactose (identified in 34 percent of the exhibits). Approximately 13 percent of SA heroin exhibits analyzed in 2013 contained no diluents.
- SA heroin exhibits purchased in Puerto Rico continued to contain significant amounts of the adulterant xylazine, while SA exhibits purchased in Chicago and St. Louis contained the adulterant diphenhydramine. Thirty-four SA heroin exhibits analyzed under the HDMP program were also found to contain cocaine.

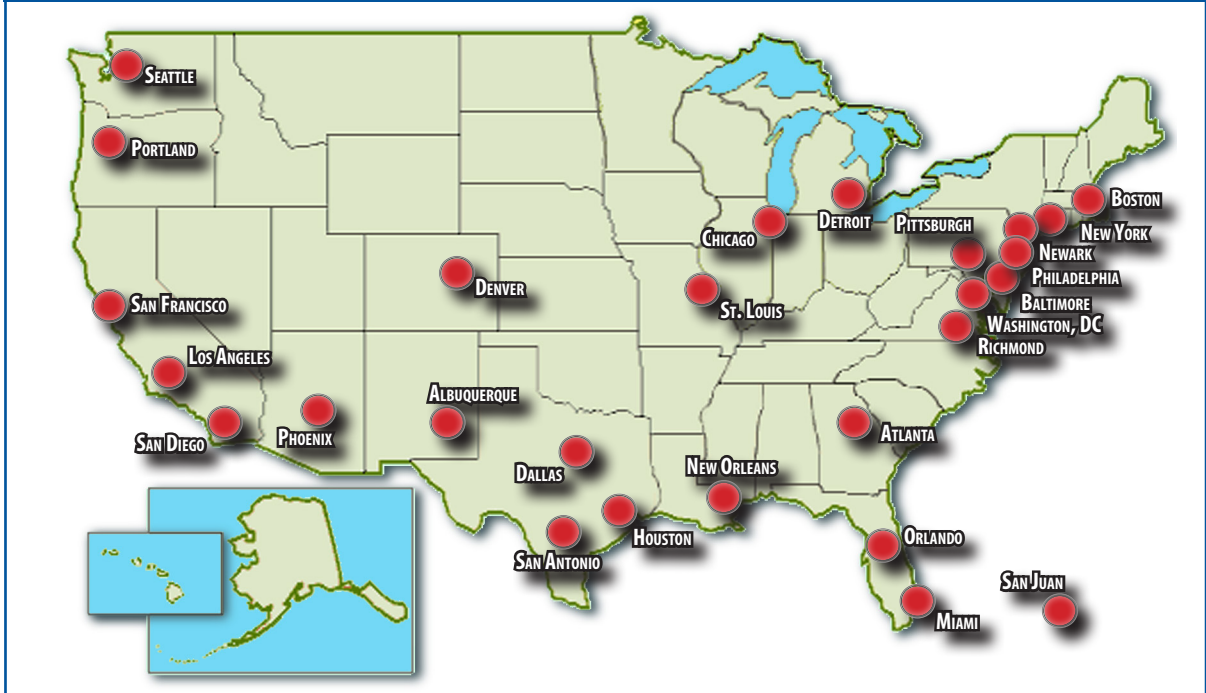
### MEX ADULTERANTS AND DILUENTS

- Despite low purity levels, approximately 79 percent of MEX HDMP exhibits analyzed in 2013 were unadulterated with only a few that contained adulterants such as lidocaine (4 percent), caffeine (4 percent), and diphenhydramine (9 percent). Cocaine was also identified in approximately 4 percent of MEX heroin exhibits.
- Lactose was identified as the most common diluent for MEX heroin and was noted in 44 percent of the HDMP exhibits. Sucrose was detected in 12 percent of the exhibits, while diacetamide and dextrose were discovered in less than 10 percent of the purchases. No diluents were identified in approximately 30 percent of MEX heroin exhibits analyzed in 2013.

### SWA ADULTERANTS AND DILUENTS

- Only eight SWA heroin exhibits were purchased via the HDMP in 2013. Common adulterants detected in these exhibits included caffeine and acetaminophen. Caffeine was found in 50 percent of SWA heroin exhibits and acetaminophen was also found in 50 percent of exhibits. Mannitol was the most common diluent found in SWA heroin and was present in 75 percent of the SWA heroin exhibits analyzed in 2013.

(U) Figure 2. Heroin Domestic Monitor Program Participating Cities



## Regional

Generally, the U.S. heroin market remains geographically divided by the Mississippi River. East of the Mississippi River, particularly in the northeast corner where the largest U.S. heroin user populations are located, SA heroin continued to dominate the market. In 2013, of the HDMP qualified samples that were classified as SA heroin, 92.5 percent were purchased east of the Mississippi River. Of the HDMP qualified samples that were classified as MEX (to include alleged Mexican white) heroin, 82.9 percent were purchased west of the Mississippi River. In 2013, all SWA heroin exhibits were purchased east of the Mississippi River.

## City By City

### ALBUQUERQUE, NEW MEXICO

In 2013, 14 qualified HDMP samples were purchased in the Albuquerque metropolitan area; each was classified as MEX heroin. The purity of the exhibits averaged 17.8 percent, while the average cost was \$0.65 per milligram pure. Compared to the 2012 HDMP data, the average purity of MEX heroin in Albuquerque decreased 1.2 percentage points, while the price per milligram pure of MEX heroin increased by \$0.08.

One HDMP exhibit purchased in Albuquerque in 2012 was classified as an UNK signature. The purity of this exhibit was 35.5 percent with a cost of \$0.26 per milligram pure.

### ATLANTA, GEORGIA

Heroin remains available in Atlanta, primarily in the city's urban center and surrounding area. In 2013, 17 qualified samples were purchased; each was classified as SA heroin. The average purity of the SA heroin samples was 38.4 percent, at an average cost of \$1.34 per milligram pure. Compared to 2012 HDMP data, the average purity of SA heroin decreased by 1.4 percentage points, while the average price per milligram pure of SA heroin decreased by \$0.11.



In 2013, nine heroin samples purchased in Atlanta were classified as UNK signature. Seven of the UNK signature exhibits purchased displayed the characteristics of alleged Mexican white heroin with an average purity of 55.2 percent and cost an average of \$0.56 per milligram pure. The remaining two UNK exhibits had an average purity of 52.3 percent and cost an average of \$1.39 per milligram pure.

## **BALTIMORE, MARYLAND**

Heroin is widely available in metropolitan Baltimore and can be purchased on numerous corners in open-air markets or “heroin shops” (houses) in east and west Baltimore, in either high purity or diluted form.

In 2013, 24 qualified samples were purchased; 23 were classified as SA heroin. These exhibits reflected an average purity of 13.7 percent, at an average cost of \$0.67 per milligram pure. Compared to 2012 HDMP data, average SA heroin purity decreased by 5.5 percentage points, while the average price per milligram pure decreased by \$0.03.

One SWA heroin HDMP exhibit was purchased in Baltimore in 2013. The exhibit was 2.0 percent pure, and cost \$2.17 per milligram pure. Compared to 2012 HDMP data when three SWA heroin exhibits were purchased, the purity of the SWA heroin purchased in 2013 significantly decreased by 19.3 percentage points, while the price per milligram pure increased significantly by \$1.58.

Seven heroin exhibits purchased in Baltimore in 2013 were classified as an UNK signature. Four of the UNK signature exhibits purchased displayed the characteristics of alleged Mexican white heroin with an average purity of 30.6 percent and cost an average of \$0.60 per milligram pure. Three of the UNK signature exhibits purchased and analyzed by the SFL1 demonstrated a mixed profile. Of these exhibits, the average purity was documented at 13.6 percent and cost an average of \$0.45 per milligram pure.

## **BOSTON, MASSACHUSETTS**

Heroin remained widely available in Boston during 2013. The continued availability and relative affordability of the drug highlights the city’s position as a major eastern U.S. heroin market. A total of 24 qualified samples were purchased; 23 were classified as SA heroin. These exhibits reflected an average purity of 20.5 percent and an average price of \$0.80 per milligram pure. Compared to 2012 HDMP data, the average purity of SA heroin increased by 4.5 percentage points, while the average price per milligram pure decreased by \$0.82.

One SWA heroin HDMP exhibit was purchased in Boston in 2013. The exhibit was 17.4 percent pure, and cost \$0.34 per milligram pure. This exhibit represents the first SWA heroin HDMP purchase in Boston since the inception of the program in 1979.

Five HDMP exhibits purchased in Boston in 2013 were classified as an UNK signature. One of the UNK signature exhibits purchased displayed the characteristics of alleged Mexican white heroin with a purity of 18.1 percent and cost \$0.64 per milligram pure. Four of the UNK signature exhibits purchased and analyzed by the SFL1 demonstrated a mixed profile. Of these exhibits, the average purity was documented at 20.1 percent and cost an average of \$0.82 per milligram pure.

## **CHICAGO, ILLINOIS**

In 2013, 23 qualified HDMP exhibits purchased in Chicago were classified as SA heroin. The average purity of these heroin exhibits increased to 16.4 percent and the average price was \$0.72 per milligram pure. Compared to 2012 HDMP data, the average purity of SA heroin increased by 3.2 percentage points, while the average price per milligram pure increased by \$0.26.



Eleven HDMP exhibits purchased in Chicago in 2013 were classified as an UNK signature. Five of the UNK signature exhibits purchased displayed the characteristics of alleged Mexican white heroin with an average purity of 24.8 percent and cost an average of \$0.45 per milligram pure. Six of the UNK signature exhibits purchased and analyzed by the SFL1 demonstrated a mixed profile. Of these exhibits, the average purity was documented at 8.8 percent and cost an average of \$0.51 per milligram pure.

### DALLAS, TEXAS

In 2013, MEX heroin accounted for all of the 34 qualified HDMP samples purchased in the Dallas area. The purity of these exhibits averaged 12.1 percent, while the average cost was \$0.61 per milligram pure. Compared to 2012 HDMP data, purity decreased significantly by 10.3 percentage points, while the average price per milligram pure decreased by \$0.06.

### DENVER, COLORADO

HDMP data confirm that MEX heroin is the predominant heroin available in Denver and was the only type purchased in the city through the HDMP during 2013. All 33 qualified samples were identified as MEX heroin, and had an average purity of 22 percent and an average price of \$1.40 per milligram pure. Compared to 2012 HDMP data, the average purity of MEX heroin decreased by 9.9 percentage points, while the price per milligram pure of MEX heroin increased by \$0.60.

One HDMP exhibit purchased in Denver in 2013 was classified as an UNK signature. The exhibit was 16.6 percent pure, and cost \$3.35 per milligram pure.

### DETROIT, MICHIGAN

Detroit is a major heroin user market as well as a transshipment point to other communities in Michigan, Ohio, and Kentucky. During 2013, the HDMP identified SA heroin as the most prevalent type available in the city, and accounted for all 22 qualified HDMP samples. These samples averaged 40.3 percent pure, while the average cost per milligram pure was \$0.77. Compared to 2012 HDMP data, the average purity of SA heroin increased by 3.8 percentage points, while the price per milligram pure increased by \$0.23.

Eleven HDMP exhibits purchased in Detroit in 2013 were classified as an UNK signature. Nine of the UNK signature exhibits purchased displayed the characteristics of alleged Mexican white heroin with an average purity of 39.2 percent and cost an average of \$0.74 per milligram pure. One of the UNK signature exhibits purchased and analyzed by the SFL1 demonstrated a mixed profile. Both the mixed profile exhibit plus the one remaining UNK signature exhibit had an average purity of 25.2 percent and cost an average of \$0.87 per milligram pure.

### HOUSTON, TEXAS

MEX black tar<sup>e</sup>, the heroin type traditionally encountered in the Houston area, accounted for 19 of the qualified HDMP purchases in 2013. These exhibits averaged 3.5 percent pure with an average cost per milligram pure of \$3.58. Compared to the MEX heroin exhibits purchased in 2012, purity increased by 0.4 percentage points while the price dropped to \$1.86 per milligram pure.

Five HDMP exhibits purchased in Houston in 2013 were classified as an UNK signature. The average purity of these exhibits was documented at a low 2.7 percent with an average cost of \$4.87 per milligram pure.

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<sup>e</sup> MEX black tar heroin is described as a black, hard gummy substance resulting from a crude processing method that leaves behind impurities. Black tar heroin may be smoked and is also dissolved, diluted, and injected.

## LOS ANGELES, CALIFORNIA

In 2013, 35 qualified HDMP samples were purchased in Los Angeles; 34 were classified as MEX heroin. The purity of these exhibits averaged 25.2 percent, while the average price was \$0.42 per milligram pure. Compared to 2012 HDMP data, the average purity of MEX heroin increased by 1.5 percentage points and there was a decrease in price of \$0.16 per milligram pure.

One SA heroin exhibit was purchased in Los Angeles in 2013 under the HDMP. The purity of this exhibit was analyzed at 89 percent and cost \$0.37 per milligram pure. This was the first SA HDMP exhibit purchased in Los Angeles since 2010.

Two HDMP exhibits purchased in Los Angeles in 2013 were classified as an UNK signature. The average purity of these exhibits was documented at 26.9 percent with an average cost of \$0.71 per milligram pure.

## MIAMI, FLORIDA

In 2013, of the 18 qualified HDMP samples purchased in the Miami area, 16 were classified as SA heroin. The SA exhibits purchased had an average purity of 21.9 percent and an average price of \$2.17 per milligram pure. Compared to 2012 HDMP data, the average purity for SA heroin increased by 6.5 percentage points, while the average price per milligram pure decreased by \$0.69.

In 2013, two MEX heroin exhibits were purchased in Miami. The average purity of these exhibits was documented at 14.3 percent with an average cost of \$2.87. In 2012, only one MEX heroin exhibit was purchased in Miami under the HDMP and was analyzed at 16.2 percent pure with a cost of \$2.13 per milligram pure.

Eight HDMP exhibits purchased in Miami in 2013 were classified as an UNK signature. Five of the UNK signature exhibits purchased displayed the characteristics of alleged Mexican white heroin with an average purity of 9 percent and an average cost of \$4.29 per milligram pure. Three other UNK exhibits had an average purity of 7.5 percent and cost an average of \$4.01 per milligram pure.

## NEWARK, NEW JERSEY

In 2013, 29 qualified HDMP samples were purchased in the Newark metropolitan area; each was classified as SA heroin. The SA heroin exhibits averaged 57.9 percent pure and cost an average of \$1.01 per milligram pure. The purity of the SA heroin available in Newark decreased by 0.5 percentage points between 2012 and 2013, and the price increased \$0.24 per milligram pure.

Four HDMP exhibits purchased in Newark in 2013 were classified as an UNK signature. Two of the UNK signature exhibits purchased displayed the characteristics of alleged Mexican white heroin and had an average purity of 66.8 percent and cost an average of \$0.37 per milligram pure. One UNK signature exhibit purchased in Newark in 2013 demonstrated a mixed profile. This exhibit as well as one other UNK exhibit had an average purity of 60.6 percent and cost an average of \$1.18 per milligram pure.

## NEW ORLEANS, LOUISIANA

In 2013, 17 qualified HDMP samples were purchased in the New Orleans area; each was classified as SA heroin. These exhibits averaged 33.1 percent pure, with an average price of \$1.63 per milligram pure. Compared to 2012 HDMP data, the average purity of SA heroin increased significantly by 10.7 percentage points and the average price per milligram pure increased by \$0.44.

Seven HDMP exhibits purchased in New Orleans in 2013 were classified as an UNK signature. Six of the UNK signature exhibits purchased displayed the characteristics of alleged Mexican white heroin with an average purity of 28.9 percent and cost an average of \$2.52 per milligram pure. The remaining UNK exhibit had a purity of 7 percent and cost \$5.95 per milligram pure.

### NEW YORK, NEW YORK

Particular attention is paid to HDMP results for New York City, which remains one of the most prominent heroin destination and distribution centers in the United States. Data from 2013 confirm that SA heroin continues to dominate HDMP heroin purchases in the New York metropolitan area. Of the 44 qualified exhibits purchased in New York City during 2013, 43 were classified as SA heroin. Analysis revealed that these samples had an average purity of 43.3 percent and an average price of \$0.73 per milligram pure. Compared to 2012 HDMP data, the average purity of SA heroin decreased by 1.7 percentage points and the average price per milligram pure increased by \$0.12.

In 2013, one MEX heroin exhibit was purchased in New York. The purity of the exhibit was analyzed at 29.8 percent and cost \$2.40 per milligram pure. One previous MEX heroin exhibit purchased in New York in 2011 was analyzed at 11.5 percent pure and cost \$4.14 per milligram pure.

Ten HDMP exhibits purchased in New York in 2013 were classified as an UNK signature. Two of the UNK signature exhibits purchased displayed the characteristics of alleged Mexican white heroin with an average purity of 78.1 percent and cost an average of \$0.36 per milligram pure. Four of the UNK signature exhibits purchased and analyzed by the SFL1 demonstrated a mixed profile. The mixed profile exhibits along with 4 other UNK signature exhibits had an average purity of 33.4 percent and cost an average of \$1.75 per milligram pure.

### ORLANDO, FLORIDA

In Orlando, 11 qualified HDMP exhibits were purchased in 2013; each was classified as SA heroin. These exhibits averaged 25.8 percent pure with an average cost of \$1.34 per milligram pure. Compared to 2012 HDMP data, the average purity of SA heroin decreased by 3.4 percentage points, while the average price per milligram pure increased by \$0.61.

Seven HDMP exhibits purchased in Orlando in 2013 were classified as an UNK signature. According to SFL1 forensic analysis, all 7 of the UNK signature exhibits purchased in Orlando displayed the characteristics of alleged Mexican white heroin with an average purity of 20.7 percent and an average cost of \$1.50 per milligram pure.

### PHILADELPHIA, PENNSYLVANIA

SA heroin remains heavily trafficked and widely available in Philadelphia. In 2013, all 23 qualified exhibits purchased under the HDMP were SA heroin. The purity of these heroin exhibits averaged 64.8 percent, which represents the highest average heroin purity recorded among all HDMP participating cities in 2013. The average price for these same heroin exhibits was \$0.50 per milligram pure. Compared to 2012 HDMP data, the purity of SA heroin in Philadelphia decreased by a notable 12 percentage points, and the average price per milligram pure increased by \$0.03.

Ten HDMP exhibits purchased in Philadelphia in 2013 were classified as an UNK signature. Two of the UNK signature exhibits purchased displayed the characteristics of alleged Mexican white heroin with an average purity of 48.1 percent and cost an average of \$0.97 per milligram pure. Eight of the UNK signature exhibits purchased and analyzed by the SFL1 demonstrated a mixed profile. Of these exhibits, the average purity was documented at 58.3 percent and cost an average of \$0.44 per milligram pure.

## PHOENIX, ARIZONA

In 2013, 28 qualified HDMP samples were purchased in Phoenix, each was identified as MEX heroin. The average purity of these heroin samples was 26.4 percent with an average price of \$0.58 per milligram pure. Compared to 2012 HDMP data, the purity of MEX heroin increased by 4.7 percentage point. The average price per milligram pure decreased by \$0.25.

Four HDMP exhibits purchased in Phoenix in 2013 were classified as an UNK signature. The average purity of these exhibits was 19.6 percent with an average cost of \$0.84 per milligram pure.

## PITTSBURGH, PENNSYLVANIA

HDMP data indicate that SA heroin remains the primary heroin available at the retail level in Pittsburgh. During 2013, a total of 15 qualified heroin samples were purchased in Pittsburgh; each was classified as SA heroin. The average purity of SA heroin samples was 47.8 percent with an average price of \$1.03 per milligram pure. When compared to 2012 HDMP data, the purity of SA heroin increased by 9.9 percentage points and the average price per milligram pure increased by \$0.02.

Four HDMP exhibits purchased in Pittsburgh in 2013 were classified as an UNK signature. One of the UNK signature exhibits purchased displayed the characteristics of alleged Mexican white heroin with a purity of 74.2 percent and cost of \$0.59 per milligram pure. Two of the UNK signature exhibits purchased and analyzed by the SFL1 demonstrated a mixed profile. The mixed profile exhibits, along with one other UNK signature exhibit had an average purity of 24.9 percent and cost an average of \$1.43 per milligram pure.

## PORTLAND, OREGON

In 2013, 20 qualified samples were purchased in Portland and all were classified as MEX heroin. These samples exhibited an average purity of 16.9 percent and an average price of \$1.65 per milligram pure. Compared to 2012 HDMP data, the average purity decreased by 3.9 percentage points and the average price decreased by \$0.11 per milligram pure.

## RICHMOND, VIRGINIA

The 2013 HDMP data indicate that SA heroin dominates the Richmond street-level heroin market. A total of 13 qualified heroin samples were purchased during 2013; 12 were analyzed as SA heroin. These samples showed an average purity of 20.5 percent and an average price of \$1.46 per milligram pure. Compared to 2012 SA samples, purity decreased 2.1 percentage points and the average price per milligram pure decreased by \$0.22.

Richmond also purchased one MEX heroin exhibit in 2013 analyzed at 10.2 percent pure with a cost of \$3.06 per milligram pure. One MEX heroin exhibit purchased in Richmond in 2012 was 5.3 percent pure with a cost of \$5.55 per milligram pure.

Five HDMP exhibits purchased in Richmond in 2013 were classified as an UNK signature. Three of the UNK signature exhibits purchased displayed the characteristics of alleged Mexican white heroin with an average purity of 17.5 percent and cost an average of \$1.39 per milligram pure. One of the UNK signature exhibits purchased and analyzed by the SFL1 demonstrated a mixed profile. Both the mixed profile exhibit as well as one other UNK signature exhibit had an average purity of 18.7 percent and cost an average of \$2.17 per milligram pure.

## **SAN ANTONIO, TEXAS**

In 2013, all 20 qualified HDMP samples purchased in San Antonio were classified as MEX heroin. These exhibits had an average purity of 7.1 percent and an average price of \$0.91 per milligram pure. Compared to 2012 HDMP data, the purity of MEX heroin decreased by 1.4 percentage points and the price per milligram pure increased by \$0.20.

## **SAN DIEGO, CALIFORNIA**

In 2013, 30 qualified HDMP samples were purchased in San Diego; all were classified as MEX heroin. These exhibits reflected an average purity of 26.4 percent and an average cost of \$0.69 per milligram pure. Compared to 2012 HDMP data, the average purity decreased by 4 percentage points, while the average price per milligram pure increased by \$0.04.

Only one HDMP exhibit purchased in San Diego in 2013 was classified as an UNK signature. The exhibit was 18 percent pure, and cost \$0.75 per milligram pure.

## **SAN FRANCISCO, CALIFORNIA**

The 2013 HDMP data confirm that MEX heroin remains the prevalent type of heroin available at the retail-level in San Francisco. Thirty-one qualified heroin exhibits were purchased in the San Francisco area in 2013 and all were classified as MEX heroin. These exhibits reflected an average purity of 5.2 percent and an average price of \$1.29 per milligram pure. Compared to 2012 HDMP data, the average purity decreased by 0.5 percentage points, while the average price per milligram pure increased by \$0.06.

## **SAN JUAN, PUERTO RICO**

In 2013, 19 qualified samples were purchased in San Juan; all were classified as SA heroin. The exhibits averaged 13.4 percent pure and cost an average of \$1.70 per milligram pure. Compared to 2012 HDMP data, the average purity decreased by 5.3 percentage points, while the average price per milligram pure decreased by \$0.07.

One HDMP exhibit purchased in San Juan in 2013 was classified as an UNK signature. The exhibit was 2.3 percent pure, and cost \$21.74 per milligram pure.

## **SEATTLE, WASHINGTON**

MEX heroin, primarily MEX black tar, remains the most prevalent type of heroin purchased on the streets of Seattle and all 26 qualified HDMP heroin samples purchased in Seattle in 2013 were classified as MEX heroin. The exhibits had an average purity of 15.6 percent and cost an average of \$1.14 per milligram pure. Compared to 2012 HDMP data, average purity increased by 9.9 percentage points, while the average price per milligram pure decreased by \$0.71.

Two HDMP exhibits purchased in Seattle in 2013 were classified as an UNK signature. These exhibits had an average purity of 3.7 percent with an average cost of \$1.12 per milligram pure.

## **ST. LOUIS, MISSOURI**

In 2013, 24 qualified HDMP exhibits purchased in St. Louis were classified as SA heroin. The average purity of these heroin exhibits increased to 46.8 percent and the average price was \$1.02 per milligram pure. Compared to 2012 HDMP data, the average purity of SA heroin decreased by 8.6 percentage points, while the average price per milligram pure increased by \$0.49.



Eight HDMP exhibits purchased in St. Louis in 2013 were classified as an UNK signature. According to SFL1 forensic analysis, 7 of the UNK signature exhibits purchased in St. Louis displayed the characteristics of alleged Mexican white heroin with an average purity of 40.4 percent and an average cost of \$0.62 per milligram pure. The remaining UNK signature exhibit was 2.5 percent pure with a cost of \$8.42 per milligram pure.

## WASHINGTON, DC

Washington, DC has a well-entrenched heroin market. New York City is the predominant source city for the heroin distributed in the Washington, DC area with Philadelphia and Baltimore acting as secondary sources.

Prior to 2011, SA heroin dominated the Washington, DC market. However, HDMP data from the last three years suggest that the heroin market is in transition. In 2013, of the 22 qualified HDMP samples purchased in Washington, DC; 16 were classified as SA heroin. The purity of these exhibits averaged 22 percent pure, while the average price was \$1.04 per milligram pure. Compared to 2012 HDMP data, the purity of SA heroin decreased by 9.7 percentage points, while the average price per milligram pure increased by \$0.21.

SWA heroin accounted for 6 of the 22 qualified HDMP heroin samples purchased in Washington, DC in 2013. SWA heroin exhibits reflected an average purity of 27.4 percent and cost an average of \$1.22 per milligram pure. Between 2012 and 2013, the average purity of SWA heroin available in Washington, DC, increased significantly by 11.6 percentage points and the average price per milligram pure decreased by \$0.08. As previously noted, only two other HDMP participating cities (Baltimore, Maryland and Boston, Massachusetts) indicated a limited amount of SWA heroin availability at the retail level during 2013.

Eight HDMP exhibits purchased in Washington, DC, in 2013 were classified as an UNK signature. Three of the UNK signature exhibits purchased displayed the characteristics of alleged Mexican white heroin with an average purity of 36.8 percent and an average cost of \$0.64 per milligram pure. Five of the UNK signature exhibits purchased and analyzed by the SFL1 demonstrated a mixed profile. Of these exhibits, the average purity was documented at 14.1 percent and cost an average of \$1.91 per milligram pure.

(U) Table 3: 2013 Heroin Counts, Purities, Prices, Origin, and City by Geographic Region

	SOUTHWEST ASIAN HEROIN			SOUTH AMERICAN HEROIN			MEXICAN HEROIN			ALLEGED MEXICAN WHITE HEROIN		
EAST	NUMBER OF SAMPLES	PURITY	PRICE	NUMBER OF SAMPLES	PURITY	PRICE	NUMBER OF SAMPLES	PURITY	PRICE	NUMBER OF SAMPLES	PURITY	PRICE
Atlanta	—	—	—	17	38.4%	\$1.34	—	—	—	7	55.2%	\$0.56
Baltimore	1	2%	\$2.17	23	13.7	0.67	—	—	—	4	30.6	0.60
Boston	1	17.4	0.34	23	20.5	0.80	—	—	—	1	18.1	0.64
Chicago	—	—	—	23	16.4	0.72	—	—	—	5	24.8	0.45
Detroit	—	—	—	22	40.3	0.77	—	—	—	9	39.2	0.74
Miami	—	—	—	16	21.9	2.17	2	14.3%	\$2.87	5	9	4.29
New Orleans	—	—	—	17	33.1	1.63	—	—	—	6	28.9	2.52
New York	—	—	—	43	43.3	0.73	1	29.8	2.40	2	78.1	0.36
Newark	—	—	—	29	57.9	1.01	—	—	—	2	66.8	0.37
Orlando	—	—	—	11	25.8	1.34	—	—	—	7	20.7	1.50
Philadelphia	—	—	—	23	64.8	0.50	—	—	—	2	48.1	0.97
Pittsburgh	—	—	—	15	47.8	1.03	—	—	—	1	74.2	0.59
Richmond	—	—	—	12	20.5	1.46	1	10.2	3.06	3	17.5	1.39
San Juan	—	—	—	19	13.4	1.70	—	—	—	—	—	—
Washington, DC	6	27.4	1.22	16	22	1.04	—	—	—	3	36.8	0.64

	SOUTHWEST ASIAN HEROIN			SOUTH AMERICAN HEROIN			MEXICAN HEROIN			ALLEGED MEXICAN WHITE HEROIN		
WEST	NUMBER OF SAMPLES	PURITY	PRICE	NUMBER OF SAMPLES	PURITY	PRICE	NUMBER OF SAMPLES	PURITY	PRICE	NUMBER OF SAMPLES	PURITY	PRICE
Albuquerque	—	—	—	—	—	—	14	17.8%	\$0.65	—	—	—
Dallas	—	—	—	—	—	—	34	12.1	0.61	—	—	—
Denver	—	—	—	—	—	—	33	22	1.40	—	—	—
Houston	—	—	—	—	—	—	20	3.5	3.58	—	—	—
Los Angeles	—	—	—	1	89%	\$0.37	34	25.2	0.42	—	—	—
Phoenix	—	—	—	—	—	—	28	26.4	0.58	—	—	—
Portland	—	—	—	—	—	—	20	16.9	1.65	—	—	—
San Antonio	—	—	—	—	—	—	20	7.1	0.91	—	—	—
San Diego	—	—	—	—	—	—	30	26.4	0.69	—	—	—
San Francisco	—	—	—	—	—	—	31	5.2	1.29	—	—	—
Seattle	—	—	—	—	—	—	26	15.6	1.14	—	—	—
St. Louis	—	—	—	24	46.8	1.02	—	—	—	7	40.4%	\$0.62
TOTAL	8	23%	\$1.23	334	35.1%	\$1.04	293	16.9%	\$1.12	64	35.5%	\$1.21

Report Parameters: Only qualified samples are shown. January 1 to December 31, 2013

Price Unit: Per milligram pure.

## Geo-Probes: Views from Additional Cities

Since 2001, DEA has conducted an initiative under the HDMP known as Geographical Probes, or Geo-Probes. The goal of the Geo-Probes is to gain additional information about existing and emerging heroin markets in areas outside the 27 designated HDMP cities. In order to accomplish this, DEA provides funds for additional heroin sample purchases in selected cities across the United States.

Geo-Probe data, while important in identifying emerging threats and market trends, are not calculated as part of the national average and are not compared against program-wide HDMP samples.

In 2013, under the Geo-Probe Initiative, heroin purchases were made in the following areas: Bellingham, Washington; Cape Cod, Massachusetts; Grand Rapids, Michigan; Jacksonville, Florida; and in Ventura County, California.

- In June 2013, a Geo-Probe was conducted in Bellingham. A total of 5 MEX heroin exhibits were purchased that averaged 30.3 percent pure with a cost of \$4.46 per milligram pure.
- In June and July 2013, a Geo-Probe conducted on Cape Cod resulted in the purchase of one SA heroin exhibit and one UNK exhibit. The SA exhibit was 10.1 percent pure with a cost of \$1.46 per milligram pure. The UNK exhibit, which displayed the characteristics of alleged Mexican white heroin, was 6.9 percent pure with a cost of \$3.45 per milligram pure.
- A Geo-Probe conducted in Grand Rapids in June 2013 resulted in the purchase of four SA heroin exhibits and one UNK heroin exhibit. The SA exhibits averaged 20 percent pure with a cost of \$0.90 per milligram pure. The UNK exhibit, which displayed the characteristics of alleged Mexican white heroin, was 15.4 percent pure with a cost of \$1.03 per milligram pure.
- A Geo-Probe in Jacksonville in February 2013 resulted in the purchase of 2 UNK heroin exhibits with an average purity of 10.1 percent pure and an average cost of \$5.66 per milligram pure. One of the UNK signature exhibits purchased in Jacksonville displayed the characteristics of alleged Mexican white heroin.
- A Geo-Probe conducted in Ventura County in March 2013 resulted in the purchase of four MEX heroin exhibits that averaged 31.6 percent pure with a cost of \$0.28 per milligram pure.

## 2013 Summary of Findings

Although 2013 HDMP statistics indicate that Mexico maintains a slight edge over South America as the primary source of the heroin sold at the retail-level in the United States, the U.S. heroin market still remains roughly divided by the Mississippi River, with MEX brown powder heroin and black tar heroin dominating west of the Mississippi and South America white powder more commonly available east of the Mississippi River. Of the HDMP qualified samples classified as SA heroin, 92.5 percent were purchased east of the Mississippi River. Of the qualified samples purchased west of the Mississippi River, 82.9 percent were classified as MEX (to include alleged Mexican white) heroin.

In 2013, HDMP data indicated that heroin exhibits classified as an UNK signature were encountered most often in the eastern and Midwestern United States where SA heroin typically dominates the market. Of particular interest is the fact that 57 of the 64 (89.1 percent) heroin exhibits classified as UNK which displayed the characteristics of “alleged Mexican white” heroin were purchased east of the Mississippi River, in cities identified as traditional SA heroin markets. These cities include Atlanta, Baltimore, Boston, Chicago, Detroit, Miami, New Orleans, New York City, Newark, Orlando,

Philadelphia, Pittsburgh, Richmond, St. Louis, and Washington, DC. This is likely an indication that the current retail heroin market in each of these cities is in transition and that Mexican DTOs continue to expand their role in white heroin markets.

SWA heroin availability remained confined to a few markets, such as Baltimore, Boston, and Washington, DC.

The supply of SEA heroin available to the United States remained severely limited, and 2013 marked the eighth consecutive year in which no SEA heroin samples were purchased through the HDMP.

The 2013 HDMP data reflected that heroin exhibits classified as UNK which displayed the characteristics of alleged Mexican heroin exhibited the highest average purity in the program at 35.5 percent with an average price of \$1.21 per milligram pure.

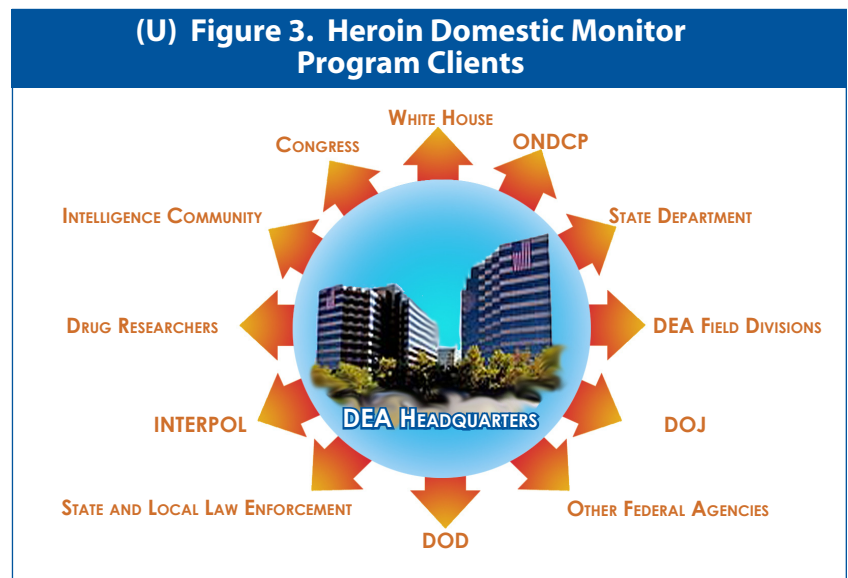
HDMP data reflected a decline in the average purity of SA heroin from 37.3 percent in 2005 to 35.1 percent in 2013. In 2013, 10 HDMP cities including Atlanta, Baltimore, Newark, New York City, Orlando, Philadelphia, Richmond, San Juan, St. Louis, and Washington, DC reported a decline in the average purity of SA heroin available in their respective retail markets when compared with 2012 purity levels.

Between 2009 and 2013, the purity of MEX heroin at the retail-level dropped from 24.7 percent to 16.9 percent. In 2013, seven HDMP cities including Albuquerque, Dallas, Denver, Portland, San Antonio, and San Francisco all reported a decline in the purity of MEX heroin available in their respective retail markets when compared with 2012 purity levels.

## HDMP Consumers

The HDMP is the sole U.S. Government source of data on the origin, price, and purity of heroin available on the streets of the United States and, as such, is an important assessment and trending tool for DEA, other federal, state, and local law enforcement agencies, drug policy makers, and drug abuse researchers throughout the nation. The HDMP results are frequently included in intelligence and investigative reports designed to corroborate trends and inform DEA, other government agencies including Congress and the White House Office of National Drug Control Policy (ONDCP) about the U.S. heroin situation.

The HDMP remains a valuable indicator of trends in the retail market and when used in conjunction with other information provides DEA with an overall long-term assessment of heroin trafficking in the United States.



## (U) Appendix A: 2012 Heroin Counts, Purities, Prices, Origin, and City by Geographic Region

	SOUTHWEST ASIAN HEROIN			SOUTH AMERICAN HEROIN			MEXICAN HEROIN			SOUTHEAST ASIAN HEROIN		
EAST	NUMBER OF SAMPLES	PURITY	PRICE	NUMBER OF SAMPLES	PURITY	PRICE	NUMBER OF SAMPLES	PURITY	PRICE	NUMBER OF SAMPLES	PURITY	PRICE
Atlanta				30	39.8%	\$1.45						
Baltimore	3	21.3%	\$0.59	22	19.2	0.70	1	12.8%	\$0.41			
Boston				31	16.0	1.62						
Chicago				16	13.2	0.46						
Detroit				26	36.5	0.54						
Miami				20	15.4	2.86	1	16.2	2.13			
New Orleans				21	22.4	1.19						
New York				41	45.0	0.61						
Newark				29	58.4	0.77						
Orlando				14	22.4	1.95						
Philadelphia				32	76.8	0.47						
Pittsburgh	1	32.9	1.13	14	37.9	1.01						
Richmond				15	22.6	1.68	1	5.3	5.55			
San Juan				36	18.7	1.77						
Washington, DC	8	15.8	1.30	8	31.7	0.83						

	SOUTHWEST ASIAN HEROIN			SOUTH AMERICAN HEROIN			MEXICAN HEROIN			SOUTHEAST ASIAN HEROIN		
WEST	NUMBER OF SAMPLES	PURITY	PRICE	NUMBER OF SAMPLES	PURITY	PRICE	NUMBER OF SAMPLES	PURITY	PRICE	NUMBER OF SAMPLES	PURITY	PRICE
Albuquerque							20	19%	\$0.57			
Dallas							41	22.4	0.67			
Denver							32	31.9	0.80			
Houston				1	2.3%	\$8.70	34	3.1	5.44			
Los Angeles							37	23.7	0.58			
Phoenix				1	93.9	0.12	37	21.7	0.83			
Portland							20	20.8	1.76			
San Antonio							20	8.5	0.71			
San Diego							29	30.4	0.73			
San Francisco							42	5.7	1.23			
Seattle							24	5.7	1.85			
St. Louis				18	55.4	0.53						
TOTAL	12	18.6%	\$1.10	375	35.3%	\$1.15	339	17.6%	\$1.40			

**Report Parameters:** Only qualified samples are shown. January 1 to December 31, 2012

**Price Unit:** Per milligram pure.



(U) Appendix B: 2011 Heroin Counts, Purities, Prices, Origin, and City by Geographic Region												
	SOUTHWEST ASIAN HEROIN			SOUTH AMERICAN HEROIN			MEXICAN HEROIN			SOUTHEAST ASIAN HEROIN		
EAST	NUMBER OF SAMPLES	PURITY	PRICE	NUMBER OF SAMPLES	PURITY	PRICE	NUMBER OF SAMPLES	PURITY	PRICE	NUMBER OF SAMPLES	PURITY	PRICE
Atlanta	1	17.5%	\$2.72	13	25.5%	\$1.04	2	22.2%	\$1.73			
Baltimore	8	6.0	1.12	17	13.8	0.62	4	3.2	4.32			
Boston				24	16.4	1.34						
Chicago				16	13.6	0.58						
Detroit				15	36.2	0.54						
Miami				14	22.1	2.27	2	14.1	2.49			
New Orleans				21	24.2	1.53						
New York	2	30.6	0.94	56	37.5	0.99	1	11.5	4.14			
Newark	1	13.6	2.56	29	46.0	0.93						
Orlando				17	24.5	1.09						
Philadelphia				29	63.6	0.60						
Pittsburgh				11	34.2	1.18	1	27.6	1.51			
Richmond	1	19.8	2.20	12	18.9	1.45	1	25.6	2.60			
San Juan				22	17.6	2.82						
Washington, DC	8	10.9	2.20	7	16.2	1.54	4	5.6	3.33			

	SOUTHWEST ASIAN HEROIN			SOUTH AMERICAN HEROIN			MEXICAN HEROIN			SOUTHEAST ASIAN HEROIN		
WEST	NUMBER OF SAMPLES	PURITY	PRICE	NUMBER OF SAMPLES	PURITY	PRICE	NUMBER OF SAMPLES	PURITY	PRICE	NUMBER OF SAMPLES	PURITY	PRICE
Albuquerque							18	15.8%	\$0.73			
Dallas							36	13.2	0.84			
Denver							37	22.9	0.68			
Houston							18	3.9	5.94			
Los Angeles							35	20.8	0.87			
Phoenix				1	84.3%	\$0.01	16	27.3	0.65			
Portland							17	24.6	0.69			
San Antonio							13	8.1	0.85			
San Diego				1	65.3	0.25	33	36.6	0.37			
San Francisco							29	3.9	1.40			
Seattle							29	3.9	2.05			
St. Louis	2	18.0%	\$1.13	18	30.1	1.17						
TOTAL	23	12.3%	\$1.66	323	31.1%	\$1.18	296	16.8%	\$1.35			

**Report Parameters:** Only qualified samples are shown. January 1 to December 31, 2012

**Price Unit:** Per milligram pure.

## Appendix C: Definitions

- Adulterant:** A pharmacologically active substance that is added to heroin to enhance or mimic the effect of heroin. A good example is acetaminophen, an analgesic compound, often found with heroin. That said, many current heroin adulterants do not meet this criteria as they may have an adverse effect or, possibly, no effect to the heroin. Adulterants can be added to heroin shipments immediately after production, in transit, or prior to distribution. While dextromethorphan for Southwest Asian heroin and diltiazem for South American heroin are examples of adulterants that are added immediately after production, xylazine for Puerto Rico and quinine for Washington, DC-Baltimore are examples for city-specific adulteration prior to distribution.
- Diluent:** An inert ingredient (pharmacologically inactive compound) used to increase the bulk of a finished product. Typical diluents are sugars, starches, and inorganic salts.
- Heroin Signature Analysis:** A program developed by DEA to identify the geographic source area of a heroin sample. Heroin signature analysis is based on an exhaustive chemical profile of authentic samples acquired from each of the four major heroin source areas: South America, Mexico, Southeast Asia, and Southwest Asia.
- Heroin Signature Classification:** The result of heroin signature analysis. Origin classifications currently defined include Mexican (MEX), South American (SA), Southeast Asian (SEA), and Southwest Asia (SWA) heroin. Samples meeting these classifications are referred to as “qualified samples.” When the results of signature analysis are inconclusive, the sample is listed as “unknown” or “unclassified.”
- Insufficient Weight:** A sample of heroin that is too small for signature analysis. Generally, an exhibit should weigh at least 1 gram net, including diluents and adulterants. This amount ensures at least 150 milligrams of pure heroin are available for signature analysis.
- Net Weight:** The total weight of the heroin exhibit, including diluents and adulterants, excluding its packaging.
- Price per milligram pure:** The price of the sample divided by the pure weight, expressed in milligrams. Price per milligram pure provides a constant over time so that prices of samples of differing weights and purity can be compared.
- Pure Weight:** The weight of pure heroin is determined by multiplying the purity of a sample by its net weight.
- Purity:** The amount of heroin present in the sample compared to all other substances. Purity is expressed as a percent.
- Qualified Sample:** A heroin sample that can be analyzed and classified by the SFL1 to the source.
- Unknown:** A sample of heroin analyzed by the SFL1, but for which the results of the analysis do not match any of the standard origin classifications (refer to Heroin Signature Classification).

(U) This product was prepared by the DEA Intelligence Programs Section. Comments and questions may be addressed to the Chief, Analysis and Production Section at [DEAIntelPublications@usdoj.gov](mailto:DEAIntelPublications@usdoj.gov).

# DEA Intelligence Product Feedback Form



DEA Product #: DEA-\_\_\_\_\_  
Title: \_\_\_\_\_

	Very Satisfied	Somewhat Satisfied	Neither Satisfied nor Dissatisfied	Somewhat Dissatisfied	Very Dissatisfied
Overall satisfaction with DEA Product	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Readability/Understanding of DEA Product	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Value/Usefulness of NNP Product	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Report Increased my Understanding or Knowledge of the report subject	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Product Relevance to my agency's mission	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How will you use this report? (Check all that apply)	<input type="checkbox"/> Policy Formulation <input type="checkbox"/> Situational Awareness <input type="checkbox"/> Operational Planning <input type="checkbox"/> Training <input type="checkbox"/> Resource Allocation <input type="checkbox"/> Other				

Additional Comments:

Name of Organization: \_\_\_\_\_  
Point of Contact: \_\_\_\_\_  
Telephone Number: \_\_\_\_\_  
Email: \_\_\_\_\_