Louisiana Methamphetamine Report

2004-2006

Louisiana Department of Health and Hospitals

Office of Public Health

Section of Environmental Epidemiology & Toxicology

Contents

List of Tables

List of Figures

Glossary*

Laboratory Seizure	An illicit operation consisting of a sufficient combination of apparatus and chemicals that either has been or could be used in the manufacture or synthesis of controlled substances
Chem/Glass/ Equipment Seizure	A seizure of only chemicals, glassware, and/or equipment normally associated with the manufacturing of a controlled/illicit substance
Dumpsite Seizure	A location where discarded laboratory equipment, empty chemical containers, waste by products, pseudoephedrine containers, etc., were abandoned/dumped.
Rural area	Countryside or an agricultural area, may include isolated areas within a city
Urban area	A city or town
Suburban	The outskirts of a city or town
Vehicle	Anything on wheels, including cars, trucks, tractor-trailer, recreational vehicles
Family dwelling	Residences or mobile homes
Operational	A laboratory is considered operational if all the necessary chemicals and apparatus are present, and it is set up so that a chemical synthesis can begin within a short period of time
Children affected	Children residing (not necessarily present) and any children visiting

* Extracted from EPIC Form 143 Instructions (Rev.06/04). Avaiable online at http://www.astswmo.org/files/publications/cercla/removals/EPIC-instructions.doc

1.0 Introduction

Methamphetamine, commonly known as meth, is a stimulant that is made illegally from inexpensive ingredients readily purchased at pharmacies and other stores. Commonly used non-prescription substances include pseudoephedrine, lye, red phosphorous, anhydrous ammonia, acetone and black iodine.[1, 2] Meth manufacturing involves mixing and heating volatile chemicals that result in extremely hazardous and toxic agents. Health effects from these agents include short-term and long-term effects on the central nervous system, respiratory system irritation to the nose and throat, skin and eye irritation as well as effects on the liver, kidneys, and immune system and cancer. Therefore, not only are meth users and dealers at risk, but first responders, innocent bystanders and children in nearby neighborhoods and communities may be injured from this activity. Meth lab production may also cause serious short-term and long-term environmental damage. .[1-3]

According to the Drug Enforcement Administration (DEA), meth production and trafficking is the fastest-growing drug problem in Louisiana. Meth "cookers" (people manufacturing meth by heating the ingredient mixture) who are drawn to north Louisiana for its rural and isolated locations are moving south.[4, 5] In an effort to tackle the growing problem of "meth" abuse, the Louisiana legislature passed a bill, SB-24, which was signed by Governor Blanco into law on July 12, 2005. The bill restricts the purchase of key ingredients used to manufacture the drug. Consumers' purchases are limited to no more than three packages or 9 grams of products containing ephedrine, pseudoephedrine or phenyl propanolamine in a 30 day period unless the product is in gel capsule form. Retailers must monitor purchases by requiring consumers to sign a purchase log and show photo identifications when making the purchase, or by placing products in a shelf location viewable by video surveillance and monitored by store personnel at all times. The measure also requires ammonia dealers to inspect tanks and receptacles and criminalizes the use of anhydrous ammonia to make "meth". [6]

2.0 Methods and Results

To address the severe public health issue associated with meth, the Louisiana Department of Health and Hospitals (DHH), Office of Public Health (OPH), Section of Environmental Epidemiology and Toxicology (SEET), Hazardous Substance Emergency Events Surveillance (HSEES) program began receiving initial notification on methamphetamine laboratories from the Louisiana State Police (LSP) in July, 2004. Follow up reports were not available, therefore, the initial notification report may have few details. In 2005, the HSEES program contacted the US Department of Justice, Drug Enforcement Administration (DEA), El Paso Intelligence Center (EPIC) to gain access to the data on meth laboratory seizures in Louisiana. These data are collected by EPIC through the National Clandestine Laboratory Seizure Report. This report is voluntarily sent to EPIC by local and state law enforcement officials and provides more detailed and accurate information. Since EPIC data is collected through voluntary reporting, the participating level may vary so the total number and type of meth events may become skewed.

This report reviews the reported methamphetamine lab seizures in Louisiana from January 2004 to December 2006, based on both the EPIC meth seizure report and the LSP meth events report. However, both of these data sets have limitations. For the three year period of 2004-2006, available LSP reports covered the period from July 2004 to December 2006. EPIC reports for this time frame had no records from October through December for either 2005 or 2006. A follow up examination of meth lab events included in the HSEES database revealed a few additional events occurring in early 2004. These events could not be accessed for analysis (see addendum).

EPIC reported 127 meth events in 2004, 108 in 2005, and 17 in 2006, for a total of 252 in Louisiana from January 2004 to December 2006. LSP reports recorded 9 in 2004 (from July through December), 30 in 2005 (from January through December), and 13 in 2006 (from January through December), totaling 52. Louisiana State Police (LSP) handled very few meth lab cases. Most meth lab cases were reported to EPIC by Sheriff Offices and local police departments. A comparison of the reports from the two sources revealed that only 4 meth events (2 from 2005, 2 from 2006) appeared in both data sets. Combining the results from both EPIC and LSP by

eliminating the duplication, the total number of events in 2004 is 136, 136 in 2005, and 28 in 2006, totaling 300 events between 2004 and 2006. As shown in Figure 1, the annual number of meth events decreased drastically in 2006. This dramatic decline coincides with the enactment of the Louisiana law, Senate Bill 24, effective Aug 15, 2005, that required pharmacies and other stores to monitor over-the-counter ingredients used in the manufacture of meth. The tracking of monthly meth events (Figure 2) reveals that trend more vividly. For the data reviewed, the number of reported meth events declined with the enactment of the new law and remained at the lower levels since August 2005.

Figure 1. Number of reported meth events between 2004-2006 in Louisiana

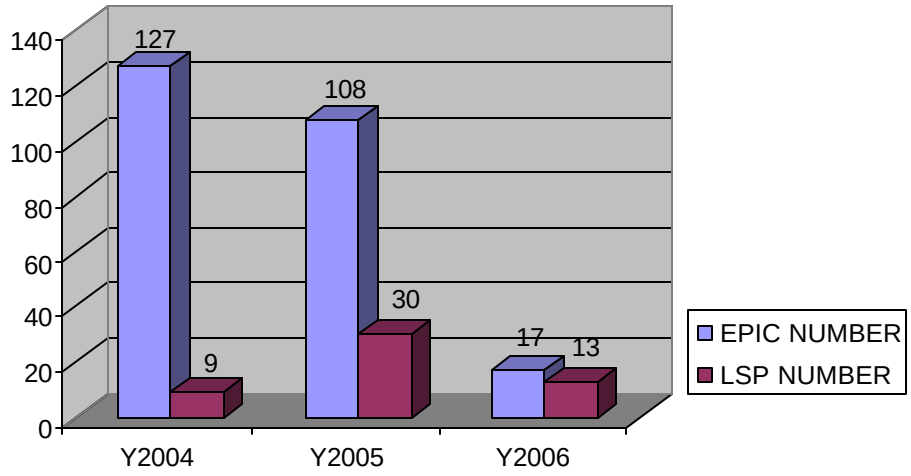
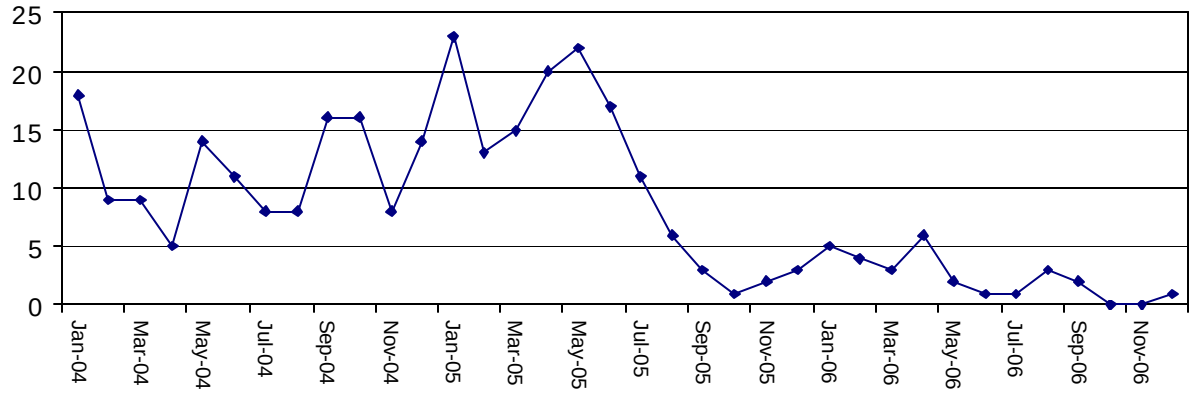


Figure 2. Number of reported meth events by month between January 2004 and December 2006 in Louisiana

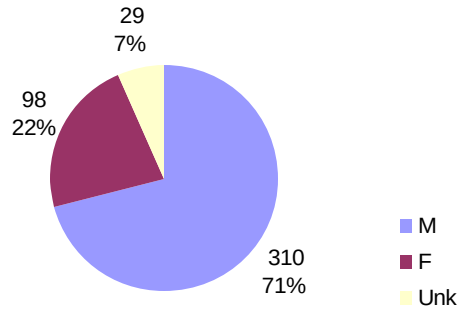


Sections 2.1-2.3 are based on both the EPIC report and the LSP report data:

2.1 Gender and Age of the Subjects Involved

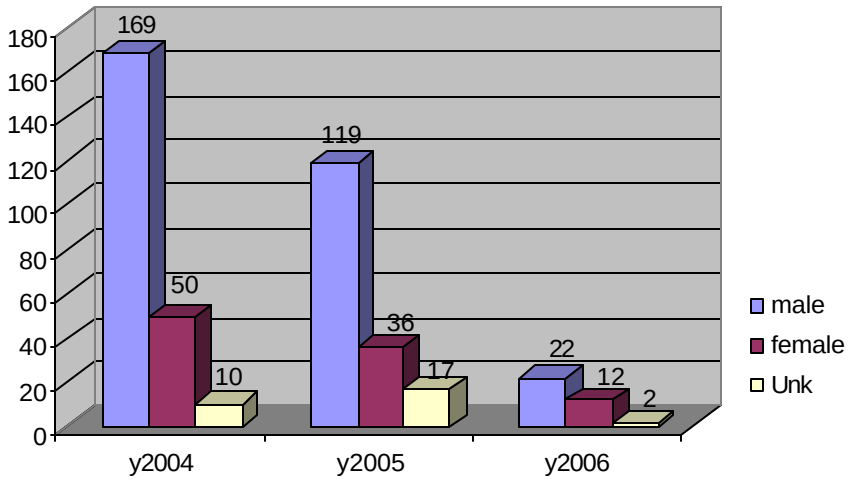
Among 437 subjects involved in 225 reported meth events, 310 (71%) are male, 98 (22%) are female, and 29 (7%) are unidentified between January 2004 and December 2006 (Figure 3). Male suspects dominated in the meth events.

Figure 3. Suspects involved in the reported meth events by gender in Louisiana between 2004-2006



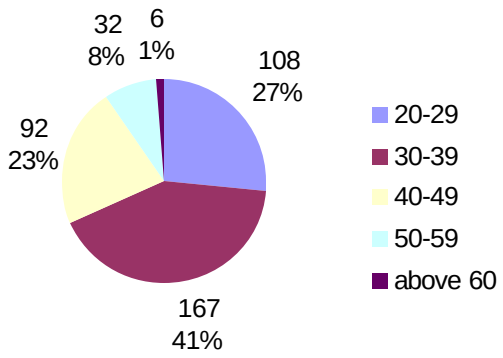
Paralleling the number of reported meth events, the number of suspects involved in meth events decreased yearly, with the sharpest decrease in 2006. However, female/male ratio jumped to 0.56 in 2006 from 0.29 in 2005 and 0.30 in 2004 (Figure 4).

Figure 4. Suspects involved in the reported meth events by gender and year in Louisiana between 2004-2006



As shown in Figure 4, the age of the majority of suspects is between 30 and 39 (167, 41%) with 27% between 20 and 29 years, 23% between 40 and 49 years and 9% 50 years and over. People under 40 years age (68%) are more likely to engage in illegal meth activities.

Figure 5. Suspects involved in the reported meth events by age in Louisiana between 2004-2006



2.2 Severity of the events

Among 300 reported meth events, methamphetamine was seized in 119 (39.9%) events, with quantities ranging from trace amount to 227 grams. Ninety-eight events (32.8%) required clean up by Hazmat companies. Fifty-two children in 29 events (9.7%), 40 law enforcement officers in 11 events (3.7%), and 69 innocent civilians in 9 events (3.0%) were exposed to toxic substances. However, the severity of the exposures and resultant health effects was not contained in the available data. Weapon seizures were reported in 14 events (4.7%).

2.3 Parish and City

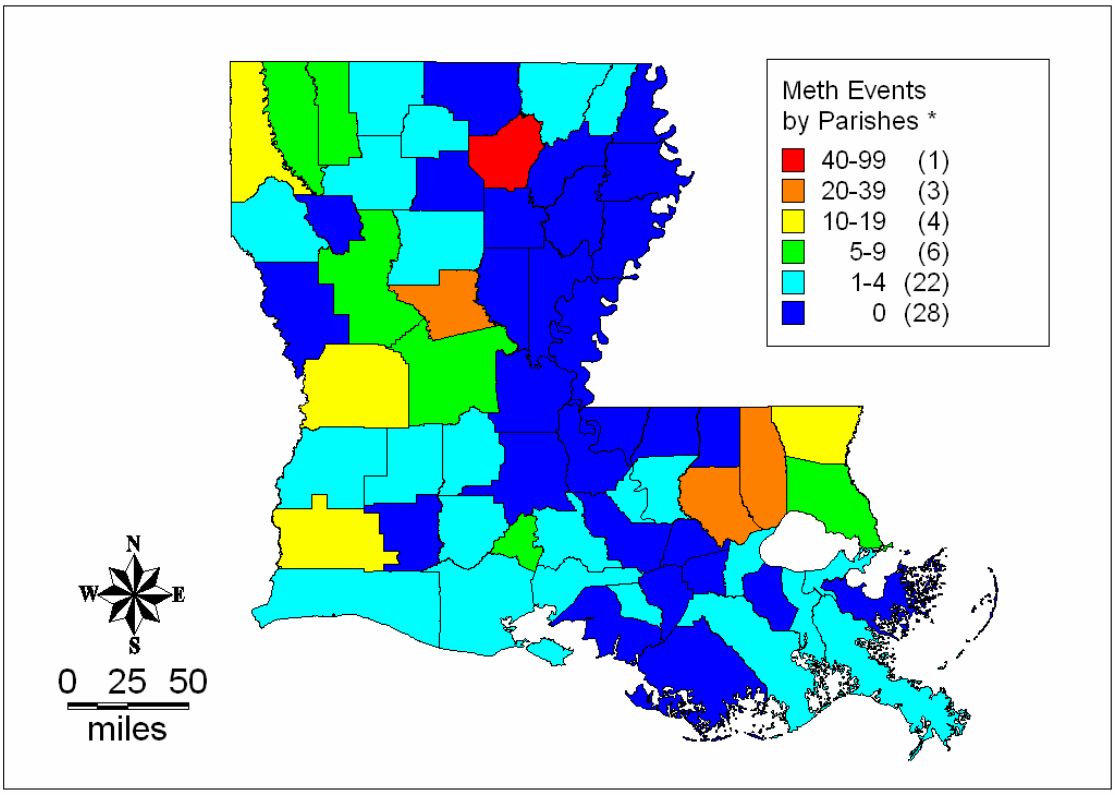
From January 2004 to December 2006, Ouachita Parish had the greatest number of reported meth events (total 99, 33.1%) in Louisiana (Table 1). Other parishes reporting significant number of meth events are Tangipahoa (35, 11.7%), Grant (25, 8.3%), Livingston (24, 8.0%), Caddo (14, 4.7%), Washington (11, 3.7%), Calcasieu (10, 3.3%), and Vernon (10, 3.3%) (Figure 6). The 10 parishes with the most events accounted for 81.9% of the reported meth events. Nine of the top 10 parishes are located in northern Louisiana or on the Northshore of Lake Pontchartrain;

Calcasieu Parish is the only parish located in south Louisiana among the top 10 parishes reporting.

Table 1. Reported Meth Events by Parish in Louisiana between 2004-2006

Parish	2004	2005	2006	Total	Percentage
Ouachita	58	38	3	99	33.0
Tangipahoa	14	18	3	35	11.7
Grant	7	18	0	25	8.3
Livingston	14	10	0	24	8.0
Caddo	5	7	2	14	4.7
Washington	9	2	0	11	3.7
Calcasieu	2	7	1	10	3.3
Vernon	3	6	1	10	3.3
Natchitoches	0	5	4	9	3.0
St Tammany	6	1	1	8	2.7
Bossier	3	1	2	6	2.0
Lafayette	1	3	2	6	2.0
webster	0	6	0	6	2.0
Rapides	0	2	3	5	1.7
Beauregard	2	1	0	3	1.0
Morehouse	1	2	0	3	1.0
West Carroll	0	3	0	3	1.0
Evangeline	2	0	0	2	0.7
Orleans	2	0	0	2	0.7
St Martin	0	0	2	2	0.7
Acadia	1	0	0	1	0.3
Allen	0	1	0	1	0.3
Bienville	0	0	1	1	0.3
Cameron	0	0	1	1	0.3
Claiborne	1	0	0	1	0.3
De Soto	0	0	1	1	0.3
East Baton Rouge	0	1	0	1	0.3
Iberia	1	0	0	1	0.3
Jefferson	1	0	0	1	0.3
Lafourche	0	1	0	1	0.3
Lincoln	0	1	0	1	0.3
Plaquemine	1	0	0	1	0.3
St John	0	1	0	1	0.3
Vermilion	1	0	1	2	0.7
West Baton Rouge	1	0	0	1	0.3
Winn	0	1	0	1	0.3
Total	**136**	**136**	**28**	**300**	**100**

Figure 6 Distributions of Meth Events by Parishes in Louisiana between 2004-2006



*Based on 2004-2006 EPIC report and LSP report

As shown in Table 2, Monroe (57, 19.1%) and West Monroe (38, 12.7%) had the most reported meth events, accounting for 31.8% of the meth events. Both of these cities are in Ouachita Parish and account for 96% of meth events in Ouachita Parish. A reported meth events within a city limit does not necessarily mean that the lab is located in an urban or suburban area as there are isolated areas within these localities.

Table 2 Top Two Cities with Most Reported Meth Events in Louisiana between 2004-2006

City	Parish	2004	2005	2006	Total	Percentage
Monroe	Ouachita	28	28	1	57	19.1
West Monroe	Ouachita	28	8	2	38	12.7

Sections 2.4-2.8 are based solely on the EPIC reports, since the LSP reports did not provide any information in these aspects.

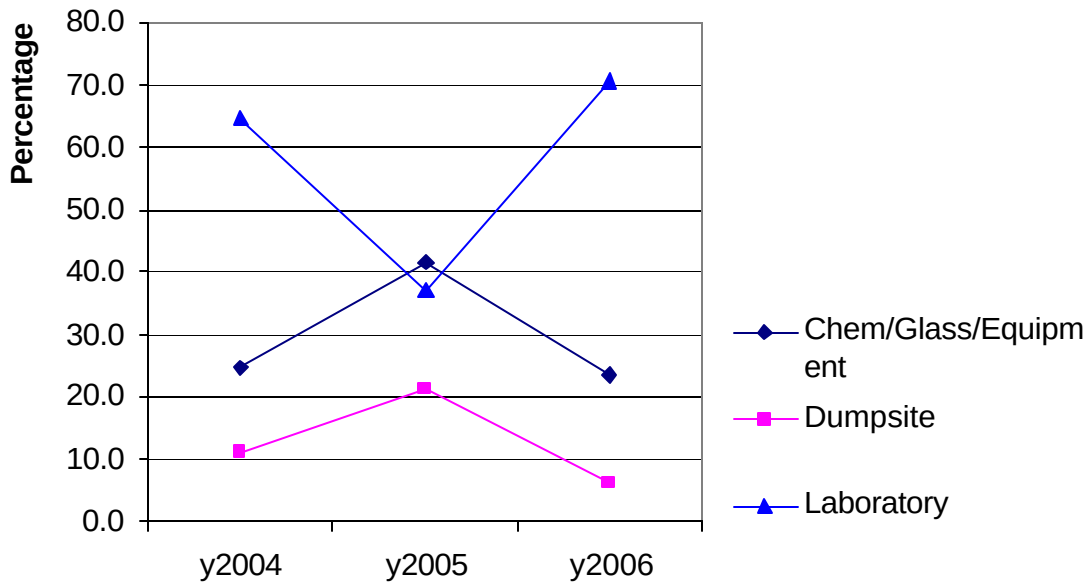
2.4 Seizure type

Types of seizure are classified as laboratories, chemical/glass/equipment or dumpsite. Lab seizure was the most frequently reported seizure type, constituting 53.2% of all reported meth events from January 2004 to December 2006. In 2005, Chem/Glass/ Equipment seizure was the major type with 45(41.7%) events. The trends of all three types of seizure are shown in Figure 7. (For definition of these seizure types, please refer to **Glossary**).

Table 3 Seizure Type Based on EPIC Report in Louisiana between 2004-2006

Seizure Type	2004		2005		2006		Total	
Chem/Glass/Equipment	31	24.4%	45	41.7%	4	23.5%	80	31.7%
Dumpsite	14	11.0%	23	21.3%	1	5.9%	38	15.1%
Laboratory	82	64.6%	40	37.0%	12	70.6%	134	53.2%
Total	**127**	**100%**	**108**	**100%**	**17**	**100%**	**252**	**100%**

Figure 7. Trends of Seizure Types in Louisiana between 2004-2006



2.5 Laboratory Locations

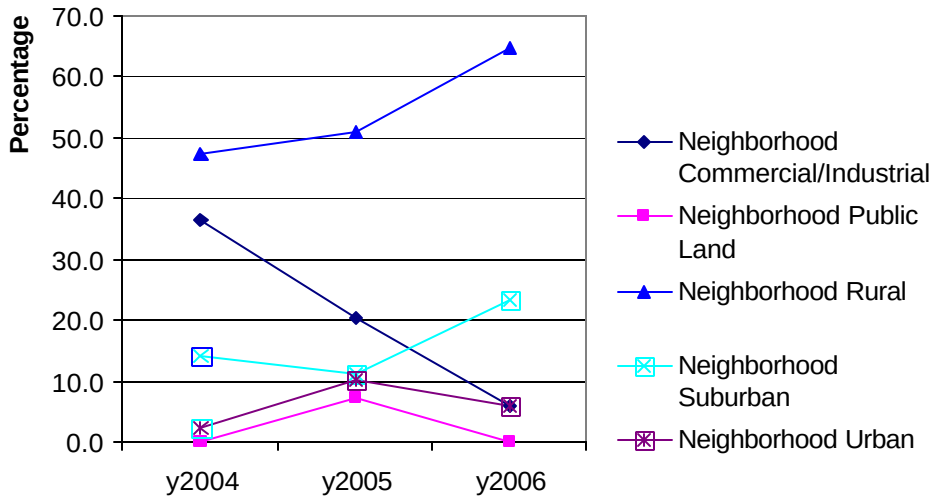
Meth labs are more often located in insolated rural areas (126 events, 50.0%) where they are less likely to be discovered**.** Rural areas may be found within city limits, as previously noted, based on the number of events reported from Monroe and West Monroe. The location describes a setting rather than a governmental boundary, such as city or parish. In the meth events reported in Monroe and West Monroe, 15 out of 95 were classified as rural. (For definition of lab location, please refer to **Glossary**).

The preference for rural area locations gradually increased year by year, from 2004 (47.2%) to 2006 (64.7%), while Commercial/Industrial location percentage decreased from 36.2% in 2004 to 5.9% in 2006. The trends in meth lab locations are shown in Figure 8.

Table 4 Laboratory Location Based on EPIC Report in Louisiana between 2004-2006

Laboratory location	2004		2005		2006		Total	
Commercial/Industrial	46	36.2%	22	20.4%	1	5.9%	69	27.4%
Public Land	0	0.0%	8	7.4%	0	0.0%	8	3.2%
Rural	60	47.2%	55	50.9%	11	64.7%	126	50.0%
Suburban	18	14.2%	12	11.1%	4	23.5%	34	13.5%
Urban	3	2.4%	11	10.2%	1	5.9%	15	6.0%
Total	**127**	**100%**	**108**	**100%**	**17**	**100%**	**252**	**100%**

Figure 8. Trends of Reported Meth Lab Locations in Louisiana between 2004-2006



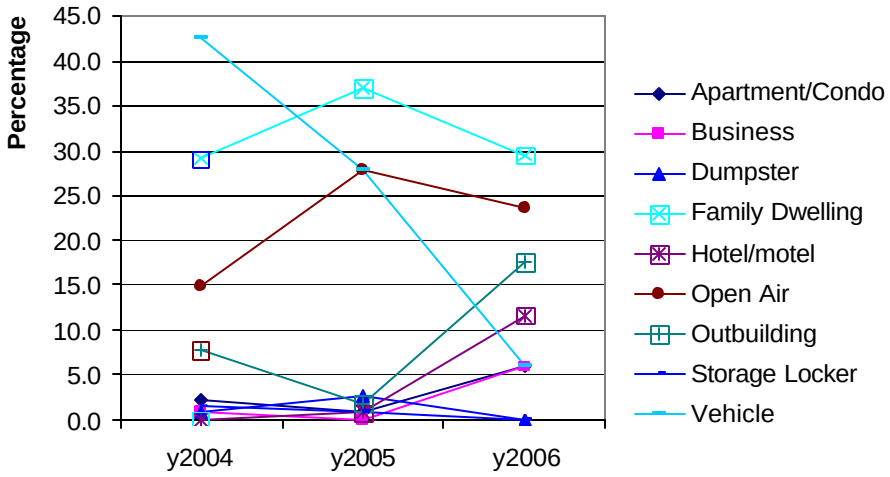
2.6 Seizure Location

In 2004, the top three seizure locations were Vehicle (54, 42.5%), Family Dwelling (37, 29.1%), and Open Air (19, 15.0%). In 2005, the top three seizure locations remained the same, but the order changed to Family Dwelling (40, 37.0%), Open Air (30, 27.8%). and Vehicle (30, 27.8%). In 2006, the top three seizure location fluctuated again: Family Dwelling (5, 29.4%). Open Air (4, 23.5%), and Outbuilding (3, 17.6%), while Vehicle (1, 5.9%) dropped out of top three. Summarizing all the reported meth events during the three years period, Vehicle (85, 33.7%) was the most frequent seizure location, followed by Family Dwelling (82, 32.5%) and Open Air (53, 21.0%). However, Table 5 and Figure 9 show that the frequency of vehicles being seized as meth lab location decreased sharply from 42.5% in 2004 to 5.9% in 2006.

Table 5 Seizure Location Based on EPIC Report in Louisiana between 2004-2006

Seizure Location	2004		2005		2006		Total	
Apartment/Condo	3	2.4%	1	0.9%	1	5.9%	5	2.0%
Business	1	0.8%	0	0.0%	1	5.9%	2	0.8%
Dumpster	1	0.8%	3	2.8%	0	0.0%	4	1.6%
Family Dwelling	37	29.1%	40	37.0%	5	29.4%	82	32.5%
Hotel/motel	0	0.0%	1	0.9%	2	11.8%	3	1.2%
Open Air	19	15.0%	30	27.8%	4	23.5%	53	21.0%
Outbuilding	10	7.9%	2	1.9%	3	17.6%	15	6.0%
Storage Locker	2	1.6%	1	0.9%	0	0.0%	3	1.2%
Vehicle	54	42.5%	30	27.8%	1	5.9%	85	33.7%
Total	**127**	**100%**	**108**	**100%**	**17**	**100%**	**252**	**100%**

Figure 9. Trends of Seizure Location in Louisiana between 2004-2006



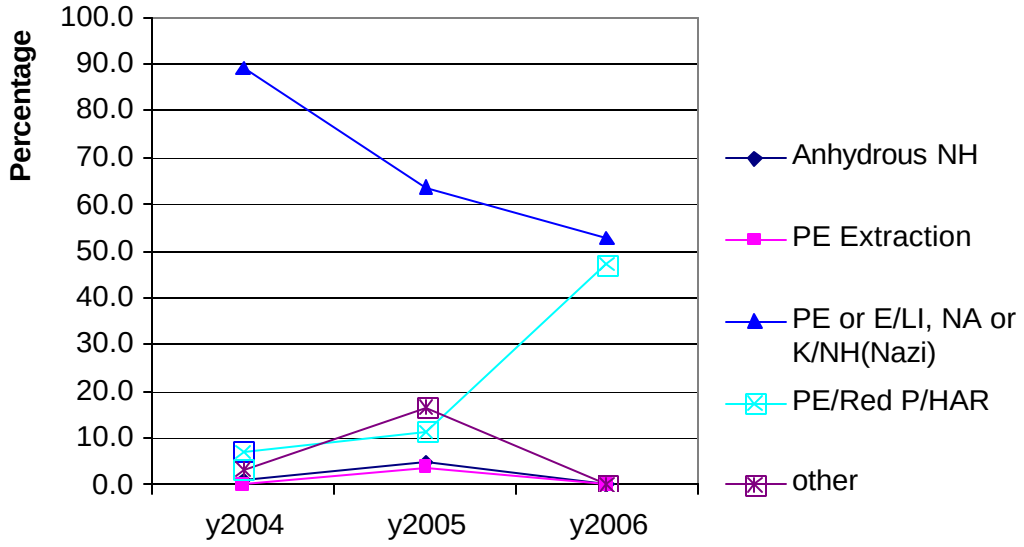
2.7 Manufacturing Methods

According to EPIC reports, "Pseudoephedrine (PE) or Ephedrine/Lithium (E/LI), Sodium (NA) or Potassium/Anhydrous Ammonia (Nazi Birch) (K/NH (Nazi)) were the methods used most often in manufacturing meth in 2004, 2005, and 2006 (see Table 6). The use of this method steadily decreased each year (89.0% in 2004, 63.9% in 2005, and 52.9% in 2006). Correspondingly, the method using Pseudoephedrine/Red "P"/Hydriodic Acid Reduction (PE /Red P/HAR) substantially increased each year, from 7.1% in 2004 to 47.1% in 2006. The trends of meth manufacturing methods are shown in Figure 10.

Table 6. Manufacturing Methods Based on EPIC Report in Louisiana between 2004-2006

Manufacture Methods	2004		2005		2006		Total	
Anhydrous NH	1	0.8%	5	4.6%	0	0.0	6	2.4%
PE Extraction	0	0.0%	4	3.7%	0	0.0	4	1.6%
PE or E/LI, NA or K/NH(Nazi)	113	89.0%	69	63.9%	9	52.9	191	75.8%
PE/Red P/HAR	9	7.1%	12	11.1%	8	47.1	29	11.5%
other	4	3.1%	18	16.7%	0	0.0	22	8.7%
Total	**127**	**100%**	**108**	**100%**	**17**	**100%**	**252**	**100%**

Figure 10. Trends of Reported Meth Manufacturing Methods in Louisiana between 2004-2006



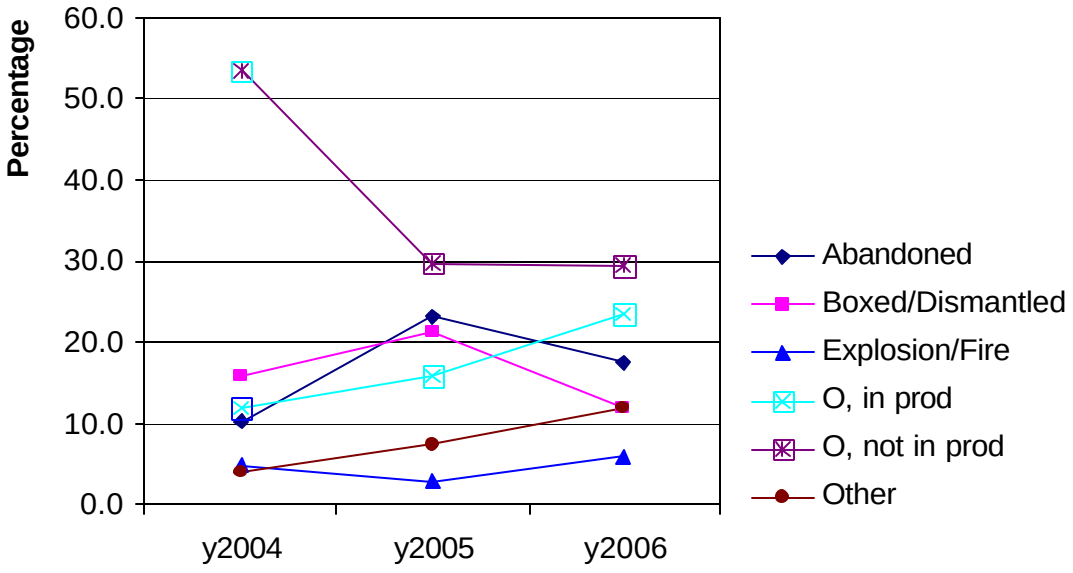
2.8 Meth Laboratory Status When Seized

As shown in Table 7 and Figure 11, "Operational-Not in Production" (O, not in prod) was the most frequent meth lab status when seized in 2004, 2005, and 2006, though its frequency decreased each year (53.5% in 2004, 29.6% in 2005, and 29.4%% in 2006). At the same time, "Operational-In production" (O, in prod) increased in frequency each year, and rose to 23.5% in 2006 from 11.8% in 2004. (For definition of lab status, please refer to **Glossary**).

Table 7 Meth laboratory Status When Seized based on EPIC reports in Louisiana between 2004-2006

Lab Status	2004		2005		2006		Total	
Abandoned	13	10.2%	25	23.1%	3	17.6%	41	16.3%
Boxed/Dismantled	20	15.7%	23	21.3%	2	11.8%	45	17.9%
Explosion/Fire	6	4.7%	3	2.8%	1	5.9%	10	4.0%
O, in prod	15	11.8%	17	15.7%	4	23.5%	36	14.3%
O, not in prod	68	53.5%	32	29.6%	5	29.4%	105	41.7%
Other	5	3.9%	8	7.4%	2	11.8%	15	6.0%
Total	**127**	**100%**	**108**	**100%**	**17**	**100%**	**252**	**100%**

Figure 11. Trends of Meth Lab Status When Seized in Louisiana between 2004-2006



3.0 Conclusions

After SB-24 became law and restricted the availability of over the counter ingredients for illegal meth production, the annual number of reported meth events fell substantially in 2006. The majority of subjects in reported meth events between January 2004 and December 2006 in Louisiana were male (71%), and between the ages of 20-39 (68%). Meth events exposed the public to meth hazards with reports of fifty two children in 29 events (9.7%), 40 law enforcement officers in 11 events (3.7%), and 69 innocent civilian in 9 events (3.0%) affected. There were 98 (32.8%) events that required Hazmat companies to clean the meth lab site. Weapon seizures were reported in 14 events (4.7%).

Ouachita Parish had the most reported meth events (33.1%). Other than Calcasieu Parish, the top 10 parishes accounted for 81.9% of the total reported meth events and are located in northern Louisiana or on the Northshore of Lake Pontchartrain. Monroe and West Monroe were the top two cities with the most reported meth events (31.8%).

Laboratory seizure constituted 53.2% of all meth events and meth labs were more often located in rural areas (50.0%). Furthermore, the preference to rural areas steadily increased each year. Vehicle (33.7%) was the most frequent seizure location, however, the frequency of Vehicle being seized as a meth lab location decreased sharply from 42.5% in 2004 to 5.9% in 2006.

"Pseudoephedrine or Ephedrine/Lithium, Sodium or Potassium/Anhydrous Ammonia (Nazi Birch)", were the most often reported methods used in manufacturing meth, though its use decreased each year. At the same time, "Pseudoephedrine/Red "P"/Hydriodic Acid Reduction" substantially increased its popularity yearly, culminating at 47.1% in 2006 from 7.1% in 2004. "Operational-Not in Production" was the most frequent meth lab status when seized, though its frequency decreased somewhat while "Operational-In production" increased its frequency yearly.

4.0 Recommendations

Based on our analysis of the meth events reported by EPIC and LSP from 2004 to 2006 in Louisiana, we have the following recommendations:

- Collect data on health outcomes of those exposed: The information on the health outcomes of those exposed (first responder, children, civilians and suspects who were being treated either on scene or at hospitals because of exposure to the meth hazard) was not available to SEET for this report, but is highly recommend to be collected in the future.
- Collect information on the real estate that was previously used as meth lab and make it accessible to the public: This measure will provide apartment renters and home buyers the protection from potential meth hazardous exposure.
- Enhance coordination for reporting meth events: The fact that among 300 reported meth events, only 4 appeared in both the EPIC and LSP report reflects the fact that there is still much to be done to enhance the cooperation and coordination among federal, state and local agencies in reporting meth events. It is also highly recommended that SEET develop a real time notification system in order to enhance public health response and follow-up.

Understanding the trends and risk factors associated with methamphetamine incidents will help state and local government, police, and public health offices develop appropriate strategies in response to meth events and allocate their resources more efficiently and effectively.

5.0 Addendum (May, 2008)

Meth lab seizure reports provided to the Louisiana HSEES program (LAHSEES) by the El Paso Intelligence Center (EPIC) give more detail than those provided by the Louisiana State Police (LSP), so for the purposes of this report, when there was a duplicate report, only the report from EPIC was counted; thus giving the impression that there were fewer meth lab cases provided by the LSP than is the actual case (see figure A1). In addition, a further review of the LSP database showed that there were an additional 10 meth lab events that were not taken into account for this report (most were early 2004).

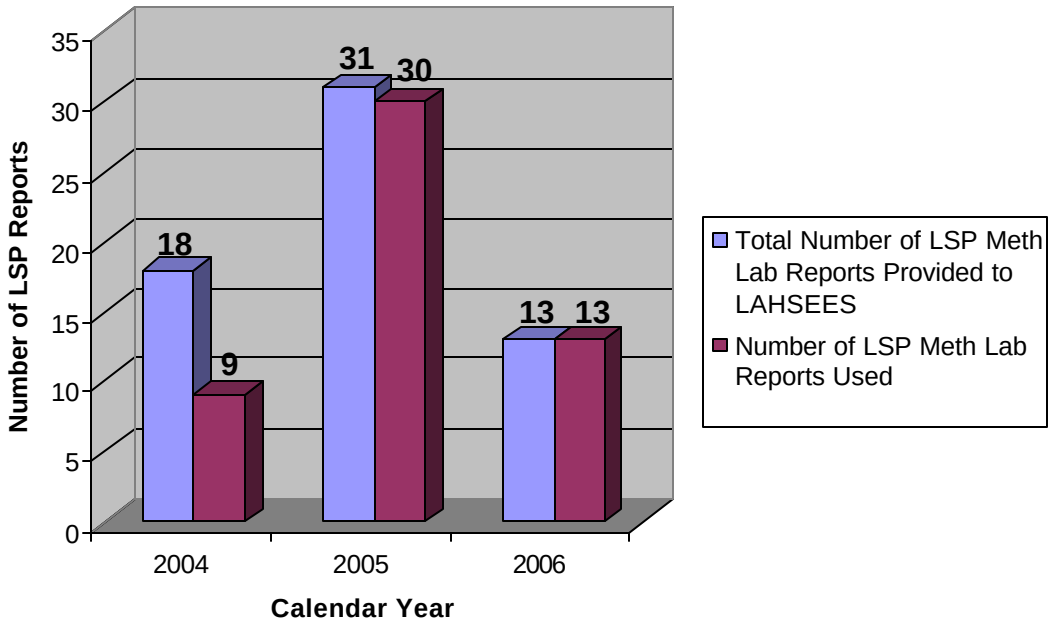


Figure A1: For the purposes of this report, when Meth lab data was provided by both the LSP and EPIC, only the EPIC data was counted.

The presence of a methamphetamine lab does not necessarily qualify for entry into the Hazardous Substances Emergency Events Surveillance (HSEES) database. In order to qualify for HSEES, a meth lab event must meet one of the following criteria:

- there is evidence that a hazardous substance was released within 72 hours of authorities initiating an investigation
- a responder suffered an injury while entering the premises.

Because of these criteria, not many meth lab events from EPIC qualify for HSEES. In order to meet the 72 hour release criteria, the EPIC report must state that the meth lab was "operational in production" and a third party contractor was used to clean up the scene (threatened events can also quality if they otherwise meet the surveillance definition).

Because of these criteria, only nine meth lab events from the LSP and EPIC qualified for the HSEES database. In addition, of the eleven meth lab events that were not used in this report, zero qualified for inclusion into the HSEES database. Figure A2 summarizes the data.

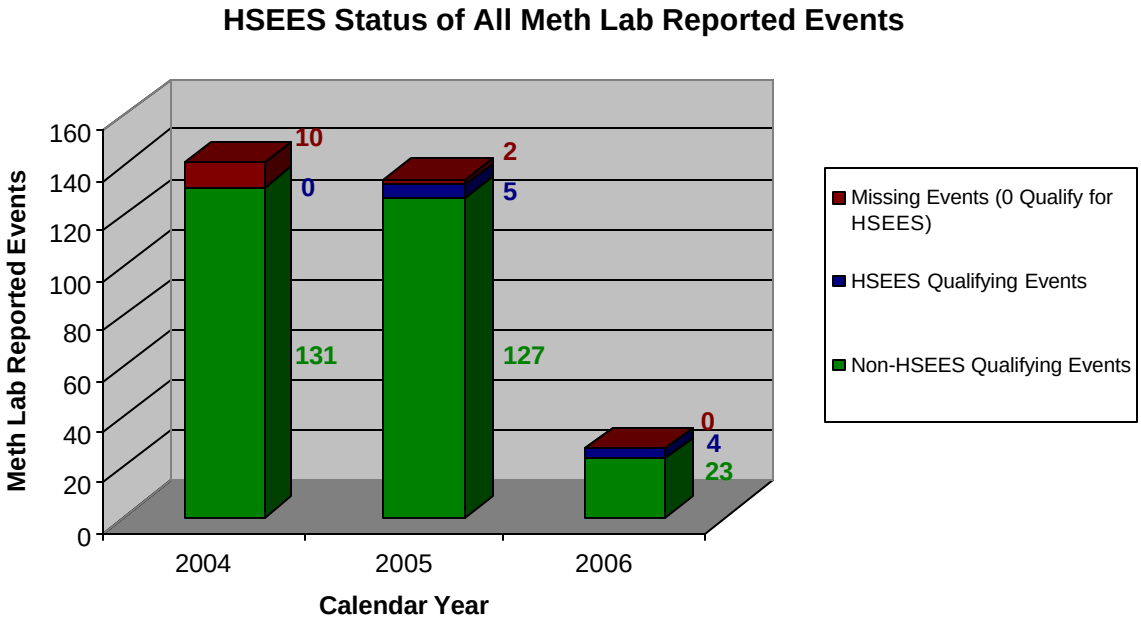


Figure A2: The total number of reported Meth lab events, including 11 not initially included in he report, and their HSEES Qualifying Status.

Reference

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