Methamphetamine Manufacturing in Kentucky 2010

Kentucky State Police

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General Meth Trend

Methamphetamine (meth) is one of the largest drug problems in Kentucky (KY). Meth cases represented 6% of total drug cases in 2007 and 2008. That figure rose to 9% in 2009 and 11% in 2010.

Historically, the majority of cases have been in central and western KY, however the number of cases is rising in eastern KY.

Cocaine cases are decreasing at almost the same rate as meth is increasing (see Figure 1). In 2009, meth had surpassed the cocaine market in KY. The price of cocaine has increased while the price of meth has decreased. A meth user can get a similar, longer-lasting high with fewer products and this leads many cocaine users to switch to meth.

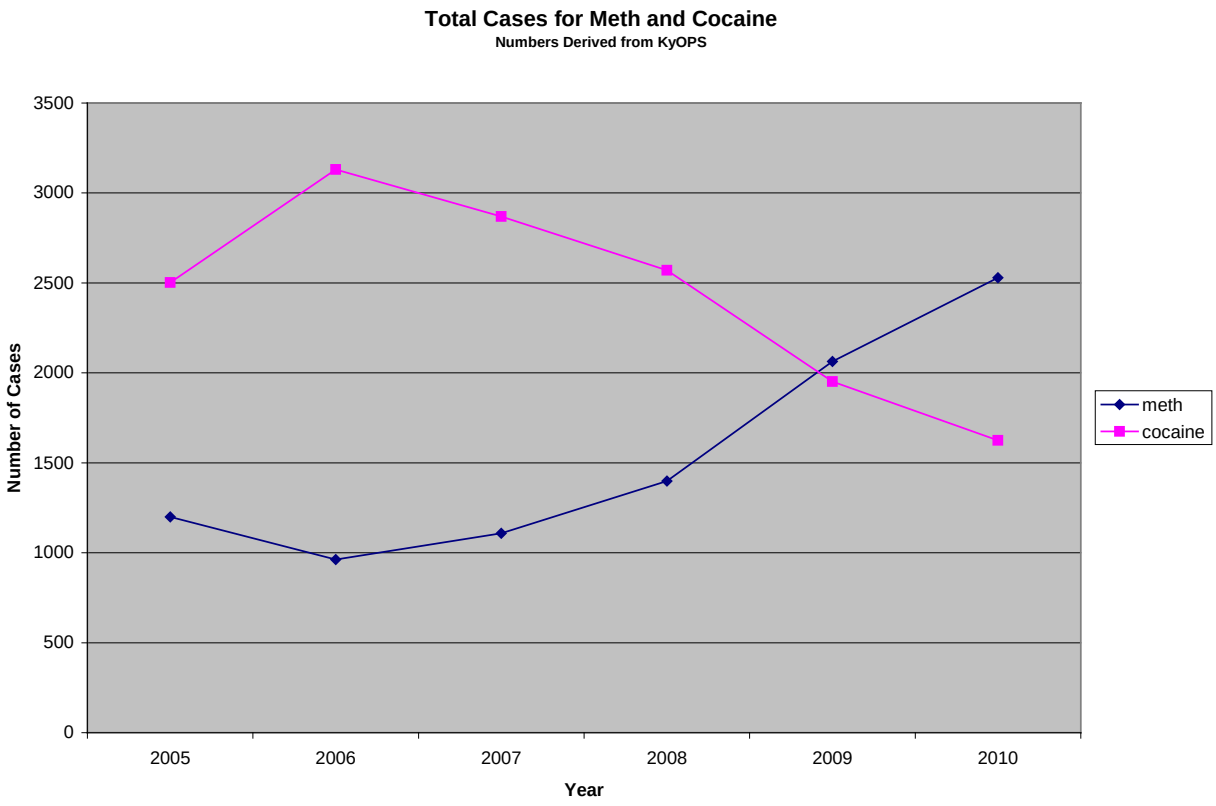

Figure 1

The switch from cocaine to meth is a rational switch for traffickers as they are able to make a larger profit. It is also a rational switch for users as they save money while retaining the highs they seek. The reduction of the number of cocaine cases may be a result of transference of addictions from cocaine to meth.

Although there was a decrease in the early 2000's, meth production and use has started rising significantly. US-based manufacturers are "smurfing" to get supplies. Smurfing is a term to describe the practice of sending several people to various pharmacies to buy legal amounts of pseudoephedrine (PSE). This enables the buyers of PSE to circumvent electronic tracking systems.

KY meth production has risen significantly. Labs in KY rose from 428 in 2008 to 741 in 2009 – a 73% increase. The 2009 figure was eclipsed on Sept 30, 2010 and 2010 ended with a new record of 1078 labs[1]. The possibility of physical injury from explosions, fires, chemical burns and toxic fumes endangers law enforcement, children and the public at large. In addition, the state spends a significant amount to clean up these labs (more information in "Cost" section).

Unlike cocaine, meth has numerous secondary effects on persons near labs. The most common secondary victim is between 0 and 4 yrs old. The age range of the victims is from newborn to 108. These victims suffer from breathing toxic gases/vapors, and exposure to acids and waste products. The potential for explosions and fires are also serious considerations since clandestine labs use volatile and explosive solvents as part of their process. This poses additional costs to KY as there are added casualties beyond the effect of the drug itself thus necessitating increased need for medical treatments and/or rehabilitation. As a result of these circumstances, meth manufacturing poses a more significant threat to law enforcement, public safety and KY as a whole.

The number of total drug cases in KY is steadily rising. However, meth cases comprise more of that total each year, indicating a higher rate of increase for meth cases than total drug cases. This faster rate of increase could be due to cocaine users switching to meth. The cocaine problem is likely not going away, but is instead migrating into meth usage. As a result, meth, and more importantly the associated production hazards, is now an even more imposing problem.

Meth is a significant public health and safety concern to KY because of the crime associated with it, the hazardous waste left behind, the number of non-meth users who have to be treated for exposure, and the risk of explosions in meth production. Because of the cost associated with meth labs, meth is a significant detriment to the state's economy.

Associated Personal and Violent Crime Data

Public safety threats attendant to the increasing meth market are growing. As meth cases increase, so do the incidences of personal crime victims as well as the total number of crimes associated with meth (see Table 1).

[1] Numbers provided by EPIC & ACS Container Program and Louisville Metro Police Department

	2006	2007	2008	2009	2010
Murder	0	0	2	3	0
Rape	0	0	1	0	0
Robbery	0	0	0	1	0
Assault	1	5	4	9	17
Burglary	0	19	1	7	16
Larceny	21	28	25	53	90
Auto Theft	0	0	1	0	3
Total Crime Cases Assoc w/ Meth	**22**	**52**	**34**	**73**	**126**
Total Meth Cases	**1131**	**1491**	**1266**	**1983**	**2,367**

Table 1: Crime Associated with Meth

Although crime associated with meth took a slight decrease in 2008, as did the total amount of meth cases, the percentage of crime associated with meth versus total meth cases is rising. In 2009, the percentage of meth cases associated with crime went from 2.6% of the total meth cases, to 3.7%. That figure rose again to 5.3% in 2010.

Though total meth cases and the attendant property crimes decreased in 2008, the number of associated violent personal crimes increased slightly. This trend continued into 2009 and 2010. The total number of meth cases increased in 2009 by 56% and the number of total crimes associated with meth increased by 115%. In 2010, this trend continued with a 19% increase in meth cases and a 73% increase in crime associated with meth.

It is intuitive that the number of crimes associated with meth would increase as meth cases increased. However, crimes associated with meth are growing at a faster rate than meth cases. Larceny is the fastest growing category. This is likely due to the need for PSE, anhydrous ammonia, and/or ammonia nitrate for the One-Pot method used in manufacturing meth. These offenders are likely stealing to get their supplies. It is expected that a reduction in meth labs would result in a reduction in the number of crimes associated with meth.

	2008	2009	2010
Male	58	136	178
Female	40	80	101
Commonwealth	1292	2036	2445
Total Victims	**1390**	**2252**	**2724**

Table 2: Reported Meth Victims

In over 90% of meth investigations the victim listed is “Commonwealth of Kentucky”. This is a reporting convention when investigating crimes against the laws of society as a whole. The remaining cases involve injury to an individual. For the purposes of this summary those individuals are called “human victims”.

The total number of human victims doubled from 2008 to 2009 and continued to increase in 2010. Human victims as a percentage of total victims increased from 7.1%, to 9.5% and then to 10.5% respectively during this same period (see Table 2). These increases are accelerating at a faster rate than the increases in overall victims. This indicates a positive correlation between meth manufacturing and human victims.

The increase of victims personally injured as a percentage of total victims is statistically significant. This is indicative of an increased public safety risk that is growing above the rate of the overall meth related case increase. It is intuitive that meth labs are not only increasing in number, but are also becoming more dangerous.

It is important to note that although victims present at the time of a meth lab seizure are reported, there are other possible victims that are not physically present when law enforcement arrives, but may still be a victim of the effects of the lab. A hypothetical example follows: Law Enforcement arrives while a father is cooking meth. There is one child present with the father. However, the mother is absent from the location with two other children. In many cases, the only victim in the report will be the child physically present at the time of seizure. The other children will not be counted. Any persons affected in surrounding properties will likewise not be counted as victims. Similar underreporting can result when meth labs are located in apartment buildings, hotel rooms or in densely populated locations. The correct number of victims is very fluid and nearly impossible to report statistically. Thus, human victim reports are conservative.

Manufacturing

Although the Commonwealth has implemented various measures to counteract meth production, meth lab seizures in KY are increasing. This is a result of illegal manufacturers in KY finding alternate means to produce meth and circumvent existing laws and tracking counter-measures. The increase in meth production is largely the result of individuals and criminal groups circumventing state and federal PSE sales restrictions. Individuals and criminal groups avoid state and federal PSE sales restrictions by smurfing.

Another factor contributing to the increase is proliferation of less complicated, smaller scale production methods most notably the “one-pot cook” method, also called the “shake and bake”[2]. In KY, the most common method used to create meth is the One-

[2] “Drug Market Analysis 2009.” Appalachia High Intensity Drug Trafficking Area. Office of National Drug Control Policy. March 2009.

Pot method. The One-Pot method is a variation of the Nazi/Birch Method. Instead of employing sequential steps to create meth, all the ingredients are introduced at the same time to create the requisite chemical reactions needed to change PSE into meth. 2-liter and 20 oz bottles are often used for this process. Although all methods of creating meth are volatile and dangerous, the One-Pot method is particularly so due to the unstable nature of the reactions. The danger is greatly enhanced by the mobility of this process. In addition to meth manufacturing occurring in buildings and living spaces, manufacturers also use the trunks of vehicles, or backpacks, to transport the mixtures. These manufacturers generally dispose of their waste by tossing it on the side of the road, creating hazardous waste sites along public rights-of-way with unlimited public access.

The percentage of meth manufacturing, as part of total meth cases, has risen from 41% in 2007 to 49% for 2010.

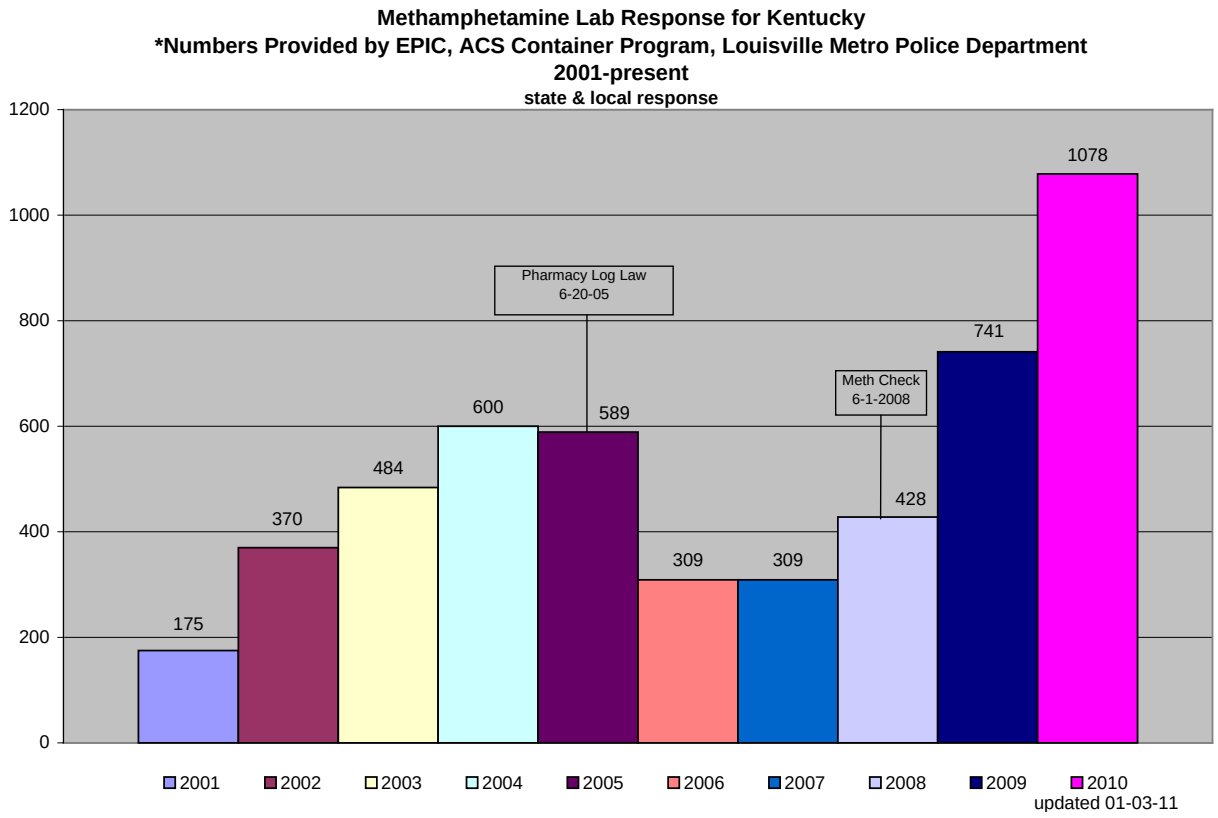

Figure 2

The total number of meth labs in KY was cut almost in half and remained low for two years after enactment of KRS 218A.1446 (aka Pharmacy Log Law). However, offenders discovered ways to circumvent the law and meth labs climbed significantly (see Figure 2).

Electronic tracking of PSE purchases was implemented in 2008 as means to augment efforts by KY pharmacies to comply with KRS 218A.1446. This electronic system is used by pharmacies to block buyers from purchasing more than the statutory limit of 9g of PSE in any 30 day period. Daily use of Claritin-D is typically a little over 7g of PSE in a one month period[3]. Anything purchased over 9g in a 30 day period is considered to be for illicit use and is blocked. Meth labs in KY continue to grow at a rapid pace despite this electronic tracking system being put into place (see Figure 2).

Offenders rapidly adapted and devised ways to circumvent electronic tracking. One way is by smurfing. A manufacturer will act in concert with multiple people to collectively purchase the maximum amounts of PSE allowed by law. Under current law and tracking, these buyers are stopped on the fourth attempt to purchase PSE in a 30 day period. Although the offender is stopped on the fourth attempt to purchase in a month, he/she has successfully purchased three times that month, with a possible total of 9g of PSE diverted for illicit use (see Figure 3).

Kentucky NPLEx Transaction Summary Report - 09/01/2010 through 10/01/2010	
Transaction Stats for Kentucky	**Results**
Total Transactions (Inquiries, Purchases, Returns, Voids)	120554
Successful Purchases (Compliance Result = Success):	119265
Number of Purchases that were Blocked:	4582
Number of Overrides. (Un-Successful Purchases that failed one or more compliance calculations but were sold anyways)	1

4582	**Number of purchases that were blocked due to meeting the limit of 9 grams in 30 days**
* 3	**Minimum number of times a person purchases before being blocked**
13,746	**Total purchases of PSE purchased under suspicious conditions**
*3 grams	**Maximum amount of PSE Blocked per purchase**
41,238 grams	**Total amount of PSE purchased under potential suspicious conditions**

16.4% of total PSE purchased was purchased under potentially suspicious conditions

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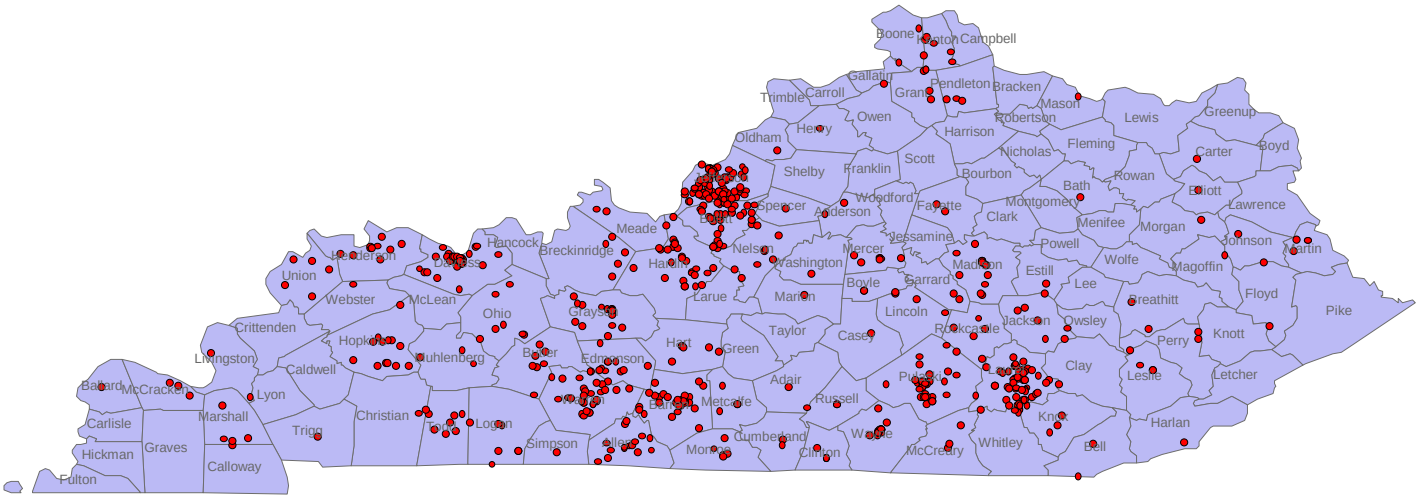
Figure 3

[3] Acquisto, Jim. Radio Interview. December 28, 2010. 590 AM WVLK Lexington.



Meth Labs 2009

In general terms, the areas with the greatest concentration of meth lab seizures in 2009 were found in central KY between the I-65 and I-75 corridors. Other localized concentrations appear in the Louisville, London, Somerset, Bowling Green and Owensboro areas (see map above). Areas in far eastern and northern KY have a less pronounced incidence, but 2010 reporting is showing an increased incidence there as well.

Many of the areas that are reporting lower numbers of meth labs have not yet seen meth incidence eclipse cocaine incidence. An intuitive deduction from the statewide trend lends credence to the theory that meth production will increase in all areas of the state on the current trajectory.

Manufacturing cases constitute almost 50% of the meth cases. Any countermeasures that reduce the number of meth labs will likely result in an attendant reduction in total cases, total victims and crimes directly related to meth.

It is also deduced that changes in manufacturing tactics, principally from methods requiring anhydrous ammonia to the One Pot method, have induced a more widespread manufacturing distribution rather than confining it to areas that are traditionally agrarian.

Meth manufacturing appears to be most prolific west of I-75. However, the migration eastward will likely continue.

It should be noted that there are limitations in the way meth labs are counted. In order to qualify as a meth lab KRS 218A.1432 requires two or more chemicals, or two or more pieces of equipment used in manufacturing meth. However, multiple meth labs in close

proximity (i.e. same property) are counted as a single lab. Therefore, it is likely that there is under-reporting of meth labs as a property can have more than a single One-Pot meth lab. An example of this is a property found with 95 One-Pot 2-liter bottle meth labs being counted as one meth lab, not 95.

Cost

Due to the nature of meth and attendant, illegal manufacturing, there is a high cost to the state that is not incurred with other drugs. Clandestine manufacturing sites result in clean-up costs, medical expenses, extra equipment expenses, and sometimes social services expenses that are not incurred with other drug cases. These costs are in addition to court costs, housing for the arrested subjects, and lab costs that are involved in all drug related cases. This section deals specifically with costs related to meth labs as the costs associated with the other meth cases will be congruent with the costs of other drug cases.

It should be noted that there is a current information gap in the determination of the exact dollar figure associated with meth offenses. This cost is difficult to calculate. Many of the factors change frequently causing difficulty in assessing true cost and information is housed in many separate agencies causing difficulty in obtaining the needed information to calculate true cost. Analytical assessments are thus conservative and limited.

There are other ensuing costs aside from the hours law enforcement officers spend to enforce the meth laws. These costs include, but are not limited to, overtime for the officers in order for them to assess, dismantle and dispose of illegal labs, extra equipment to process a meth lab, waste removal and maintenance of the extra equipment.

There are numerous non-law enforcement expenses that encumber the state as well. These include, but are not limited to, housing for arrested subjects, home remediation, emergency management services, fire department services, social services, and medical treatment for victims and offenders.

The figures below represent the minimum dollar figures and were provided by the Drug Enforcement Special Investigations – West analysis section, Division of Waste Management, KSP Human Resources, and Department of Corrections. Salaries were calculated using agency averages for both hourly and overtime rates. Incarceration figures were based on a minimum and can exceed the figures used.
In the tables below, the following expenditures are **NOT** included: medical treatment, home remediation, financial assistance given from KY Housing Corporation, Child Protection Services, Emergency Medical Services, and Fire Department services.

	2008	2009	2010
Investigation/Lab Discovery/ Disposal	$1,030,358.64	$1,783,868.58	$2,311,609.30
Arrests for Meth Related Charges	$1,711,874.43	$2,655,072.14	
Housing for Arrested Subjects	$21,802,271.25	$24,300,240.00	
Forensic Lab Analysis	$75,440.00	$198,440.00	$546,480.00
Man Hours	13,696	23,712	34,496
Cost at avg hourly rate of 37.578	$514,668.29	$891,049.54	$1,274,645.76
Cost at avg over time hourly rate of 56.367	$772,002.43	$1,336,574.30	$1,911,968.64
TOTAL (with no OT)	$24,667,741.07	$29,011,752.22	
TOTAL (with OT)	$25,439,743.50	$30,348,326.52	

Table 3:Total Cost for "Per Meth Lab" Expenses
Blank boxes did not have information provided by agency

	Annual Cost	Incidental Cost
OSHA Regulated Physicals	$56,000.00	
AIR Monitor Replacement Cartridges	$2,672.00	
Air Purifying Respirator		$193.05
Self Container Breathing Apparatus		$3,800.00
Draeger Pump		$310.00
Air Monitor		$600.00
Meth Response Trailer		$5,600.00

Table 4: Annual and Incidental Costs

The cost for man hours, portrayed in Table 3, represents the amount that is solely expended on meth labs. It does not include the man hours for other meth related cases. By reducing meth labs, law enforcement can redirect those man hours to other problems within the state. For 2010, that was approximately 34,496 man hours.

All the costs incurred in Tables 3 and 4 are only for meth lab incidents with the exception of arrests and incarceration (these figures were calculated based on

offenders with any type of meth related charge). Any decrease in meth lab activity is a direct savings to the state. For each meth lab incident that does NOT occur, the state saves a MINIMUM of $5,114.76 ($5,513,711.28 for 1078 labs).

Outlook

KY will likely see illicit meth manufacturing and related public safety issues move into the eastern and northern parts of the state on our current trajectory. Currently, some areas in northern and eastern KY still have higher numbers of cocaine cases than meth cases. Should nothing change in the way KY deals with meth, most areas will likely see meth surpass their cocaine problem.

Without any intervention, meth labs will continue to rise at an alarming rate. State expenditures will rise and property values will likely decrease in the immediate areas affected by meth labs. The public will be exposed to more hazardous waste/fumes and victims of meth will continue to rise.

Recommendations

The recommendations that follow will be most effective if done in tandem and sequential order. PSE scheduling is advised as the single most effective way to curtail meth lab proliferation by greatly reducing availability of the single most important precursor. Task force establishment will address resource deficits and allow law enforcement to work in a collaborative fashion to maximize efforts toward reduction and prosecution.

Pseudoephedrine Scheduling Law

A reduction in meth labs would be a benefit to KY and the public. Reducing meth labs would reduce safety hazards faced by emergency responders and also lower the public's exposure to hazardous and often toxic conditions. Statistics indicate a positive correlation between meth labs and the number of personal victims. Thus, a decrease in meth labs should cause a decrease in human victims of meth.

As shown in this summary, expenditures on meth lab detection, mitigation and offender prosecution are significant. Many of these costs are not associated with any other type of drug offenses. From a pragmatic and fiscal perspective, it would be prudent to focus on decreasing meth labs.

The requirement of a prescription to purchase PSE has decreased meth labs significantly and demonstrably in other jurisdictions. In Oregon, meth lab incidents dropped from 448 to 63 in a two and a half year period after the state required PSE to be placed "behind the counter" and a picture ID to be logged for each sale. When Oregon enacted a law requiring a prescription for PSE procurement, the number of labs

dropped to 13[4] Congruent results in KY would almost certainly result in significant reduction of expenditures in clean up costs, responder salaries, equipment costs, and home remediation.

Oregon also experienced a significant decrease in meth related arrests. In 2009, Oregon law enforcement officials affected approximately half the arrests made in 2006 for meth manufacturing[5]. A decrease in arrests would lead to savings in court costs and Department of Corrections' costs assuming similar results in KY.

Similar evidence of the effect of PSE scheduling can be found in Mississippi. The state enacted a prescription requirement for PSE on July 1, 2010. In one example, Jackson County, MS had 174 total labs seized in 2010. Seventy percent of those labs were found prior to enactment of the PSE scheduling law. This county totaled 287 arrests for the year, but 210 of those were prior to July 1. In Harrison County, there were 225 meth arrests before the law went into effect and only 28 arrests afterward[6].

It is also likely that by reducing meth labs through this type of legislation, health costs would be reduced. Oregon Health & Science University researchers state that after Oregon enacted the PSE prescription requirement, the average number of patients seen in the emergency room for meth-related health problems was reduced. In 2006, Oregon hospitals treated an average of 18 patients per week for meth-related issues, with medical expenses of $133,212 per week for these patients totaling $7,400.66 per person. Many of these persons were uninsured[7]. The year following enactment, the average weekly meth-related visits fell to 11.3[8] Oregon saved approximately $49,584.42 per week. If KY were able to reduce meth-related emergency visits in a similar fashion it would be a direct benefit to KY taxpayers and the citizenry as a whole.

Concerns have been raised that by requiring a prescription for PSE, there would be an increase in medical costs for those that are legitimately using the PSE. This has not been a demonstrable result in Oregon. There have been fewer and fewer complaints by consumers, as evidenced by data from Oregon.[9]

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[4] Oregon Narcotics Enforcement Association. "Oregon Meth Lab Incident Statistics". November 2010. Accessed at http://www.oregondec.org/OregonMethLabStats.pdf

[5] Office of National Drug Control Policy. "Methamphetamine Trends in the United States". May 2010.

[6] WLOX News. Accessed on Jan 3, 2011. Available at http://www.wlox.com/global/category.asp?c=194069&autoStart=true&topVideoCatNo=default&clipId=5421878&flvUri=&partnerclipid=

[7] Oregon Health & Science University. "OHSU Presnts Data on Meth-Related Emergency Department Visits. May 17, 2007. Available at http://www.ohsu.edu/ohsuedu/newspub/051707meth.cfmH

[8] Dworkin, Andy. "Decongestant Ban Cut OHSU's Meth-Related Emergency Visits by a Third". The Oregonian. June 5, 2010. Available at http://www.oregonlive.com/health/index.ssf/2010/06/decongestant_ban_cut_ohsus_met.html

[9] Office of National Drug Control Policy. "Methamphetamine Trends in the United States". May 2010.

Enacting PSE scheduling legislation is not a singular fix to a complex and pervasive problem. Methamphetamine trafficking would continue to be an enforcement and public health issue in KY. However, trafficking problems are demonstrably less expensive and less hazardous to secondary victims than a manufacturing problem. As referenced earlier in this summary, meth labs create hazardous waste, reduce property values, create more victims (often children), and are public and law enforcement safety hazards.

Task Forces

Some areas of the state would benefit from establishment of task forces dedicated and specifically focused on problems associated with methamphetamine production and trafficking. Anecdotal reports in western KY indicate that narcotics traffickers are exploiting the lack of law enforcement resources. Local agencies in these areas have few narcotic detectives. Meth Task Forces could maximize various smaller resources to gather information, intelligence, and engage in enforcement to streamline efforts to reduce the meth problem. This may help combat the lack of law enforcement resources and eliminate the ability of drug traffickers to exploit reduced law enforcement resource.

Electronic Tracking

It is important to note that electronic tracking systems have limitations as evidenced by the increase in meth labs in KY after establishment of such systems. If electronic tracking is employed singularly, smurfing remains as a significant barrier to the efficacy of the system. It likewise does nothing to limit the amount of PSE that is bought within legal allowances that is diverted for manufacturing meth. Should PSE be scheduled in KY the current prescription drug monitoring system, KASPER, will then track the purchases of PSE, providing an effective means to significantly reduce the number of meth labs.