



INDIANA STATE POLICE LABORATORY DIVISION

SPECIAL BULLETIN

LABORATORY BULLETIN 2017-01

February 28, 2017

General Precautions for Dangerous Drugs

There are lethal risks associated with some of the types of drugs that the Indiana State Police Laboratory is examining. It is imperative that **everyone** handling controlled substances be cognizant of the hazards that are inherent with some of these drugs and take appropriate precautions. The Indiana State Police Laboratory's Drug Unit has identified fentanyl and carfentanil in casework samples. Several overdoses have been linked to these drugs and they can pose significant dangers to those exposed to them.

Opioid case submissions have significantly increased in the Indiana State Police Laboratory as compared to other types of drugs (See Attached Exhibit "A"). Opioids are a class of drugs that act on the nervous system to relieve pain. Continued use and abuse can lead to physical dependence and withdrawal symptoms. Fentanyl and carfentanil are two such opioids and are manufactured both clandestinely and licitly, and both may resemble cocaine powder in unadulterated form. Fentanyl is manufactured as tablet, powder, patch, or liquid form, and is primarily used legitimately to relieve pain in humans. Carfentanil is primarily used as an elephant or other large animal tranquilizer and is not intended for use in humans.

Fentanyl and carfentanil are toxic in extremely small quantities and exposure causing death can occur through ingestion, inhalation, or absorption. Precautions should be taken to minimize unintended exposure to people in the vicinity of these dangerous drugs. Due to the increasing numbers of fentanyl and fentanyl analog case submissions to the Indiana State Police Laboratory, special consideration should be given to any unknown powder cases. Evaluate each case and use training, experience, observation, and case specific information to determine if precautions beyond routine safety procedures should be employed. Special precautions may be necessary for large amounts of powder, fine powders that are easily airborne, cases involving death, and in general, suspected opiate cases.

When making these decisions, the following information and the resource links that are attached may be of value. Questions or inquiries may also be directed to the Indiana State Police Laboratory's Chemistry Section staff by calling (317) 921-5300.

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Dangerous Drugs - are those drugs, not limited to but are usually fentanyl and its analogs, that contain highly toxic substances posing a significant danger for having lethal risks or outcomes. There has been a significant increase in fentanyl submissions to the Indiana State Police Laboratory over the last five years (See Attached Exhibits "B" and "C").

- These dangerous drugs include fentanyl, fentanyl analogs, W-18, and other potent synthetic opioids. Some of the analogs are more potent than fentanyl.
- Fentanyl is a schedule II synthetic opioid that is approximately 50 to 100 times more potent than morphine.
- Fentanyl can be lethal at 0.25 mg (this is about the same size as a few grains of table salt).
- Lethal amounts may vary depending on an individual's tolerance and physical characteristics, as well as the form of the synthetic opioid.

Naloxone - is a medication administered to temporarily reverse the effects of a suspected opioid overdose. **NARCAN**[®] (naloxone HCl) Nasal Spray is an FDA-approved nasal form of naloxone for the emergency treatment of a known or suspected opioid overdose. Naloxone is recommended to be available during transport, packaging, analysis, and destruction of seized dangerous drugs or powders. For more information pertaining to naloxone, please visit the following link:

<https://www.narcan.com/?gclid=CJHuuNm4v9ECFc63wAodGkEKhQ>

❖ **General Precautions for Personal Safety-**

Anyone who encounters dangerous drugs, regardless of position in the criminal justice community, should:

- Assume all powdered drugs may contain fentanyl and/or its analogs.
- Minimize exposure opportunities by covering bare skin.
- Use Personal Protective Equipment (PPE), even if items are packaged, and PPE should include:
 - Disposable laboratory gloves (i.e. latex or nitrile), which should be worn at all times.
 - Dark colored gloves are of benefit in identifying residual light-colored drugs.
 - Double gloving may be of benefit should an outer glove become torn.
 - Disposable masks or respirators.
 - Eye protection.
- Notify everyone in proximity as to the possibility for the presence of a dangerous drug.
- Not taste, touch, or sniff suspected drugs of any kind.
- Process a potential dangerous drug with observers present at a safe distance.
- Notify someone to ensure your safety is monitored, if an observer is not immediately present.
- Ensure naloxone is immediately available for use during the handling of a dangerous drug.
- Give special consideration to large amounts of drugs that are from suspected couriers or dealers, as these types of drugs may not be diluted (i.e. "cut") and therefore may be of a higher purity than drugs that have been prepared for sale to consume.
- Prevent contamination of work areas by using disposable paper under seized drug items.
 - Items should not be placed on desk areas.

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- Work areas should be cleaned afterwards and the disposable gloves, masks, paper and other items used in the processing discarded in a biohazard container.
- Recognize the adverse and rapid effects of personal exposure, such as disorientation, coughing, respiratory distress, or cardiac arrest, and be prepared to take immediate actions in safe areas.
 - If exposure is related to ingestion, wash out mouth with water if conscious.
 - If exposure is related to inhalation, immediately move to fresh air source.
 - If exposure is related to absorption, rinse the area with water.
 - Be prepared to deploy naloxone if required.
 - Seek emergency treatment immediately, and any person who may have rendered aid should be mindful of secondary contamination.
 - Make notification to coworkers should a workplace contamination event occur.

❖ **General Precautions for Handling, Packaging, and Storing Dangerous Drugs-**

Anyone who must handle, package and/or store dangerous drugs, regardless of position in the criminal justice community, should:

- Adhere to all of the safety precautions that are noted above.
 - Take necessary time to ensure that items are properly sealed, packaged and stored securely while in your possession.
 - Take necessary time to ensure that items are properly sealed and packaged when transferring to another person.
- Use clear plastic bags to allow for immediate recognition as a possible dangerous drug item.
- Package dangerous drugs by using a double-bag and seal process or a thick mil plastic bag to prevent the risk of unintentional exposure due to a package tear, etc.
- When possible, use heat seals in lieu of tape to minimize the potential for an unintentional exposure due to a tape failure.
- Store properly sealed and packaged dangerous drug items in a rigid secondary container in storage areas, such as property/evidence rooms.
 - The storage area or container should be clearly identified as containing dangerous drugs.
 - Minimize or restrict access to the storage areas that contain dangerous drugs to only essential personnel for official business.
- Ensure that policies and procedures are developed and followed that mandate regular evidence destruction processes to avoid unnecessarily storing dangerous drugs.
- Ensure that personal protective equipment (PPE) is used during the destruction of powdered drugs.
- Transport properly sealed and packaged dangerous drug items in a rigid secondary container and not in passenger compartment areas of vehicles to minimize risks of unintended exposures from unforeseen events, such as traffic accidents, etc.

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❖ **General Precautions for Presumptive Field Testing Dangerous Drugs-**

The practice of conducting presumptive field tests on unknown powdered drug items should be avoided unless the circumstances make it absolutely necessary. However, if information is learned that a substance may contain fentanyl or its analogs, presumptive field tests should not be attempted. If there is a factual basis learned during the course of an investigation to believe fentanyl or its analogs are present, the item should be submitted to the laboratory for analysis.

- Law enforcement officials and other applicable criminal justice community members (i.e. probation, parole, etc.) should take advantage of all investigative means to identify unknown substances and to develop probable cause in order to avoid conducting field tests of dangerous drug items.
- Observations, admissions, confessions, witness interviews, training, and experience should become the first priorities in any incident with respect to the identification of powdered substances and the development and documentation of probable cause.
- Police service dog handlers should use safety precautions with respect to the K9 when deploying the dog in order to conduct searches where dangerous drugs may be present, and special attention should be given to prevent the K9 from puncturing containers.

Anyone who must conduct presumptive field tests on unknown powdered substances, regardless of position in the criminal justice community, should:

- Adhere to all of the safety precautions that are noted above.
- Ensure a second person is present and at a safe distance with naloxone during the field test process.
- Conduct the testing in a controlled, well-ventilated, and isolated area, away from common areas such as lunch rooms, break rooms, and work areas.
- Utilize fume hoods during the testing to minimize inhalation if available.
- Ensure that proper notification is made alerting others that testing is to be completed.
- Limit access to the area in which the testing is to be completed.
- Conduct the testing according to the manufacturer's instructions.
 - Sampling of the item should be done with due care to avoid spills and releasing powders into the air.
 - After completion of the test, the used kit should be placed in the palm of one gloved hand and that glove should be removed by pulling it inside-out so that the used kit is contained within that glove.
 - The used kit, gloves and any other items used in the testing process (i.e. disposable protective paper, etc.) should be discarded in a biohazard container.
 - Areas should be cleaned afterwards, and personal protection equipment (PPE) should be used during the cleaning process.
 - When the testing is completed, the items have been properly sealed and packaged, the work area has been cleaned, the PPE and related items have been removed and discarded properly, ensure that hands are washed thoroughly.
- Ensure that proper notification is made alerting others that the testing has been completed.

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❖ **Presumptive Field Testing Kit Options-**

There are many field test kits available for use that may provide the criminal justice community with options to consider with respect to both personal and work place safety concerns. However, it is important to understand that field test results are presumptive and confirmatory tests by a laboratory are recommended to ensure the presence or absence of a particular compound. While the Indiana State Police Laboratory Division does not endorse any particular manufacturer or specific products, information below is being provided to illustrate some of the various options available for your consideration.

- There are presumptive field test kits available for dangerous drugs that utilize a modified sampling procedure.
 - Marquis Reagent is often used in field testing white powders.
 - These types of field test kits utilize a swab collection method for obtaining a test sample from the source substance, which prevents a “scooping” of the unknown powders to place into the test kit.
 - The swab type kits may minimize the handling risks that can lead to unintended exposures.
 - While not recommending a specific manufacturer or product, for illustration purposes below are two kits that use a swab collection methods:
 - Field Forensics – DABIT Kits: Kit 1-BX, which may be resourced at the link below:
<http://www.fieldforensics.com/products-ffi/dabit-drug-test-kits.html>
 - Nartec – Amphetamine/Opiate Test Box, which may be resourced at the link below:
<http://nartec.com/nartec-products.html#!/Amphetamine-Opiates/c/18912032/offset=0&sort=normal>
- There are portable instruments available for field testing that provide some presumptive indication of the type of drug present.
 - These types of instruments are sometimes referred to as handheld Raman devices.
 - These instruments are capable of examining seized drug items while in its packaging, thus reducing the need to handle the substances in order to minimize handling risks associated with the collection processes of traditional field test kits.
 - Again, while not recommending a specific manufacturer or product, for illustration purposes below are two handheld Raman device manufacturers:
 - BWTEK, which may be resourced at the link below:
<http://bwtek.com/products/tacticid-n/>
 - ThermoFisher Scientific, which may be resourced at the link below:
<https://www.thermofisher.com/order/catalog/product/TRUNARC>

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❖ **General Precautions for Courtroom Safety with Dangerous Drugs-**

There are special considerations associated with handling, presenting, and storing dangerous drugs in courtroom settings that should become normal course of business in order to minimize the risks of unintended exposures to those involved in hearings, trials, depositions, etc.

- Courts, in particular drug-specific courts, should consider having naloxone available in courtrooms and the court staff should be properly trained on its use.
- Courts should consider adhering to the General Personal Safety Precautions that are noted above.
- Courts should consider adhering to the General Handling, Packaging, and Storing Precautions that are noted above.
- Courts should consider as part of normal business practice to have a safety meeting with the prosecutor, defense attorney, and the presenting witness in advance of the hearing, trial, deposition, etc. when dangerous drugs are to be presented to the court as an item of evidence.
 - The manner of presentation should be discussed and agreed upon prior to items presented to the court.
 - The Court, as well as all parties involved, should ensure that the dangerous drug items are properly sealed and packaged to avoid any unintended exposures in the courtroom.
- Courts should consider not allowing the inner packaging of dangerous drugs to be opened in court settings without ensuring the General Personal Safety Precautions are followed by those at-risk in the courtroom.
- Courts should consider a safety review of court storage areas or facilities with respect to any required short or long term storage needs associated with dangerous drugs.

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Resource Links

CDC Health Advisory – Fentanyl

<https://emergency.cdc.gov/han/han00384.asp>

CDC Health Update – Fentanyl

<https://emergency.cdc.gov/han/han00395.asp>

DEA Fentanyl Fact Sheet

https://www.deadiversion.usdoj.gov/drug_chem_info/fentanyl.pdf

DEA Fentanyl Warning Video

<http://go.usa.gov/chBgh>

Fentanyl Safety for First Responders

<https://www.fentanylsafety.com/>

Disposition of Seized Items IC 35-33-5-5 (e)

<http://iga.in.gov/legislative/laws/2016/ic/titles/035/articles/033/chapters/005/#section-5>

Drug Overdoses Kill More Than Car Crashes – NBC News -Drug Overdose Deaths Passed 50,000 Last Year in the U.S. – Far More Than the 37,000 Deaths in Road Accidents.

<http://www.nbcnews.com/health/health-news/drug-overdoses-killed-50-000-u-s-more-car-crashes-n694001>

K-9 dogs Affected by Fentanyl

<http://www.wthr.com/article/k-9-dogs-overdose-on-fentanyl-drug-that-killed-prince>

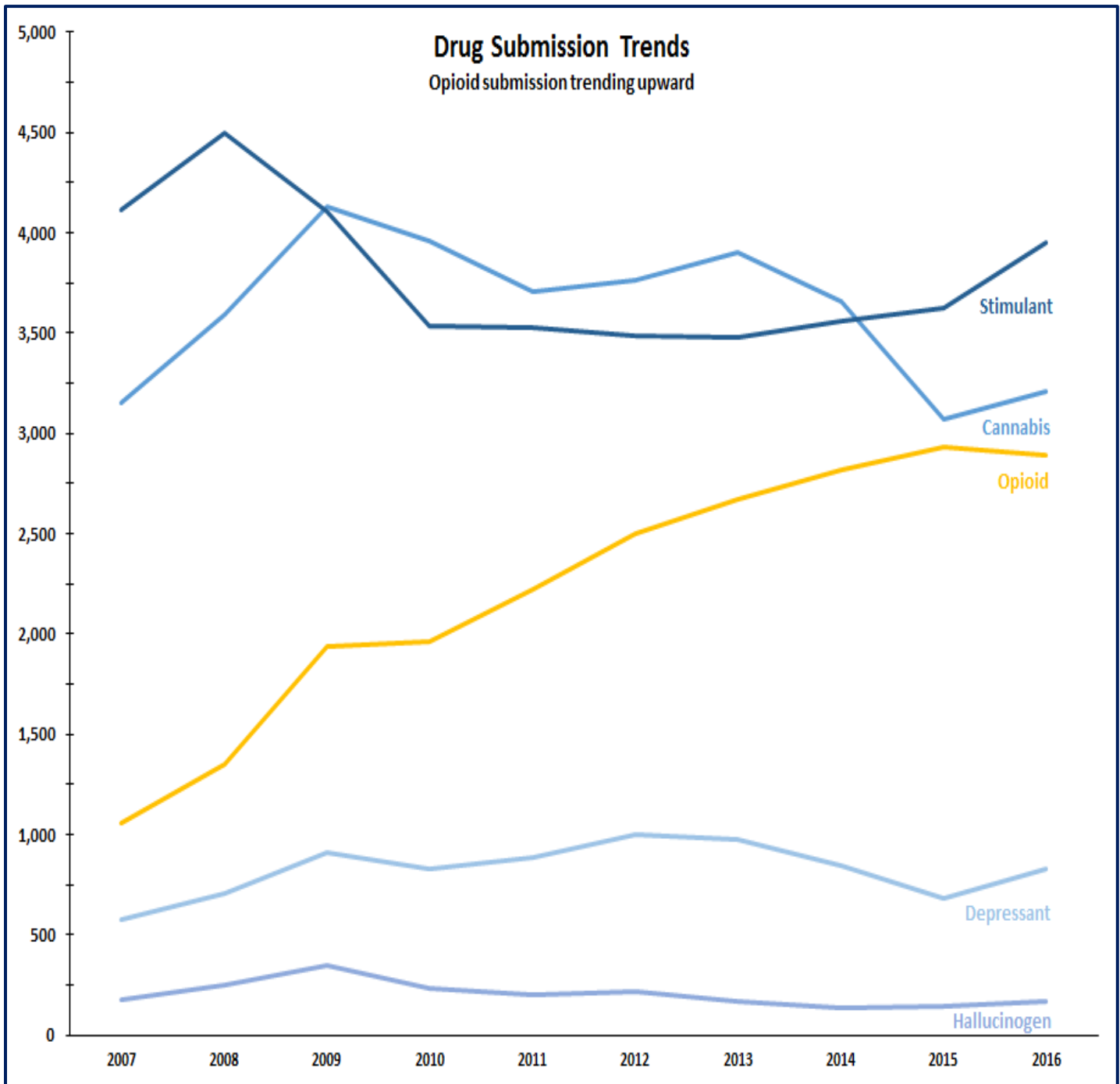
National Institute on Drug Abuse – Fentanyl Information

<https://www.drugabuse.gov/drugs-abuse/fentanyl>

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Exhibit "A":

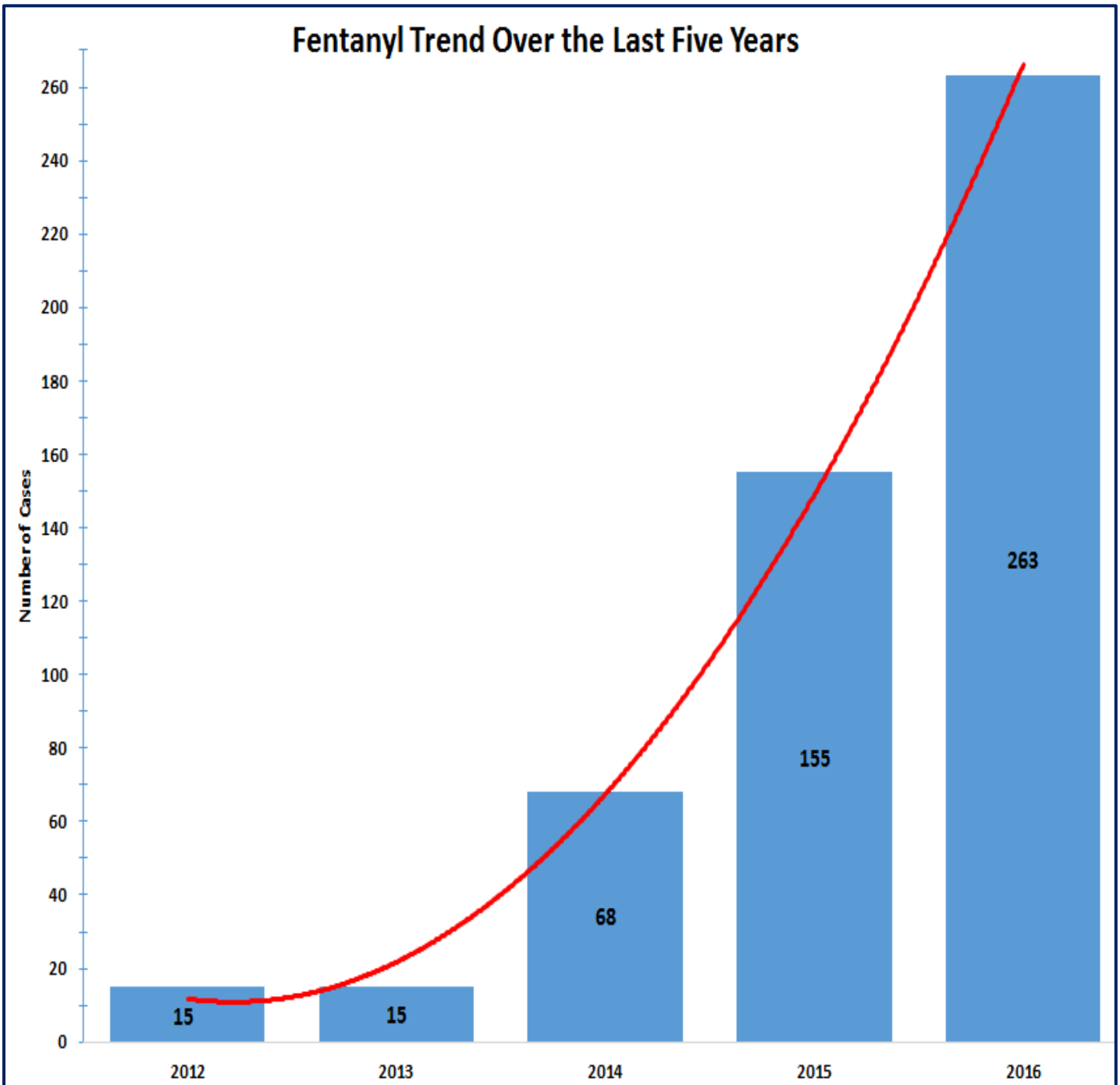
Drug Type Submission Trends to the Indiana State Police Laboratory Division



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Exhibit "B":

Fentanyl Submission Data as Reported by the Indiana State Police Laboratory Division



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Exhibit "C":

Fentanyl Submission Data by County to the Indiana State Police Laboratory Division

