

D. W. Johnson,¹ A.B. and J. W. Gunn, Jr.,² B.S.

Dangerous Drugs: Adulterants, Diluents, and Deception in Street Samples

Caveat emptor is not just an old proverb. "Let the buyer beware" is sound advice that the user of illicit drugs would be wise to heed. The buyer of these drugs—most of them clandestinely made—does not know what he is getting.

Marshman and Gibbins [1] found considerable discrepancy, in 1969, between the determined and the alleged composition of drugs in 222 samples. Cheek and Joffe [2] confirmed this credibility gap in 1970, reporting on 44 samples. Other reports continue to verify the earlier studies, as do Bureau of Narcotics and Dangerous Drugs (BNDD) laboratory findings [3-6].

BNDD laboratories analyzed 29,000 drug exhibits in the fiscal year ending 30 June 1971. In the previous fiscal year, 20,000 exhibits were examined. Evaluation of the results of these 49,000 analyses reveals several facts about the drugs being obtained on the "street."

The 45 percent increase in submissions from fiscal year 1970 to fiscal year 1971 is probably not a reflection of any growth in the illicit drug problem. It is more apt to be a reflection of increased enforcement capabilities. BNDD's laboratories not only analyze drug evidence for their agents, but also for state, local, and other federal law enforcement officials. In most law enforcement agencies, there has been not only an increase of officers working on drug cases, but there has been a marked increase in the training and experience of officers involved in drug work. Also to be considered in the workload growth is the fact that the BNDD laboratory system was in its first full year of operation in fiscal year 1970, and was still acquiring staff and instrumentation. Any or all of these factors would cause an increase in the number of exhibits submitted.³

Considerable consistency is found in the character of the workload. For both fiscal year 1970 and fiscal year 1971, a little over 30 percent of the exhibits were narcotics, about 10 percent were hallucinogenic drugs, and about 6 percent were federally controlled stimulants. Marihuana exhibits, however, increased from 20 to 25 percent of the workload and controlled depressants showed about a 4 percent drop (Table 1).

The foregoing broad drug classes were broken down into more specific groups and ranked in order of frequency to determine if the number of analyses for these drugs would reflect the overall increase in workload (Table 2).

Presented at the Twenty-fourth Annual Meeting of the American Academy of Forensic Sciences, Atlanta, Ga., 2 March 1972. Received for publication 29 Feb. 1972; accepted for publication 5 May 1972.

¹ Chief, Investigative Services Branch, Laboratory Division, Office of Scientific Support, Bureau of Narcotics and Dangerous Drugs, U.S. Department of Justice, Washington, D.C. 20537.

² Chief, Laboratory Division, Office of Scientific Support, Bureau of Narcotics and Dangerous Drugs, U.S. Department of Justice, Washington, D.C. 20537.

³ BNDD defines an exhibit as any one item of evidence or a drug that has been seized or purchased at a particular time and place. Each exhibit may undergo four, five, or more separate examinations to determine the scientifically objective facts necessary for judicial purposes. In addition, the chemist usually determines other information which is of value from an intelligence standpoint.

TABLE 1—BNDD laboratory workload by selected drugs or drug types for fiscal years 1970 and 1971.

Drug Type	% of Exhibits Analyzed	
	1970	1971
Narcotics	31	32
Marihuana	21	25
Hallucinogens	11	10
Depressants	7	3
Stimulants	6	6
Other	24	24

TABLE 2—Frequency of analysis of selected drugs for fiscal years 1970 and 1971.

	1970	1971	% Change
1. Heroin	4986	6709 (2) ^a	+34 (6) ^b
2. Marihuana	4112	7326 (1)	+78 (1)
3. LSD	1854	2393 (3)	+29 (7)
4. Amphetamines	729	1113 (4)	+53 (4)
5. Barbiturates	611	893 (6)	+46 (5)
6. Cocaine	573	1008 (5)	+76 (2)
7. Methamphetamine	418	664 (7)	+59 (3)
8. Methadone	309	338 (8)	+ 9 (8)
9. Phencyclidine	219	232 (9)	+ 6 (9)
10. STP (DOM)	108	15	-85 (10)

^a Numbers in parentheses show relative position in fiscal year 1971 compared to fiscal year 1970.

^b Numbers in parentheses show rank by percentage increase in frequency. STP is the only drug included in the table that decreased in occurrence.

Comparing the same drugs for fiscal years 1970 and 1971, considerable consistency is found in frequency of analysis. Marihuana, however, has replaced heroin in first place; LSD (*d*-lysergic acid diethylamide) and amphetamines retain their relative positions; and cocaine has replaced the barbiturates in fifth place. Methamphetamine, methadone, and phencyclidine (PCP) have retained their relative positions, and STP (DOM) (4-methyl-2,5-dimethoxyamphetamine) has almost disappeared.

Using the same figures in Table 2 to show the amount of change, we find that the number of marihuana and cocaine exhibits increased at the greatest rate. There appears to have been a slight increase in the rate of analyses of amphetamines and methamphetamines, with the barbiturates paralleling the overall increase in workload. Both heroin and LSD analyses increased at a slower rate than did the overall workload.

To determine if there was a regional difference in the relative amounts of drug exhibits analyzed, we compiled the number of drugs analyzed in each laboratory for each of the fiscal years. Table 3 lists the four drugs most frequently analyzed in each of the regional laboratories for both years. As would be expected, marihuana accounted for most of the analyses throughout the country, except in the area served by the laboratory in Washington, D.C.

This laboratory served as the forensic drug laboratory for the Washington, D.C. Metropolitan Police Department, and surrounding counties in Maryland and Virginia. The Washington police not only have an increased and well-trained narcotic squad, but almost the entire force of 5000 police officers have had BNDD training in drug law en-

TABLE 3—*Workload by BNDD regional laboratories for fiscal years 1970 and 1971, showing the four kinds of drugs most frequently analyzed.*

1970	1971
San Francisco ^a	
1. Marihuana	1. Marihuana
2. LSD	2. LSD
3. Heroin	3. Heroin
4. Amphetamines	4. Amphetamines
Chicago ^b	
1. Marihuana	1. Marihuana
2. LSD	2. LSD
3. Heroin	3. Heroin
4. Amphetamines	4. Amphetamines
Dallas ^c	
1. Marihuana	1. Marihuana
2. LSD	2. LSD
3. Heroin	3. Heroin
4. Barbiturates	4. Amphetamines
New York ^d	
1. Marihuana	1. Marihuana
2. Heroin	2. Heroin
3. LSD	3. Cocaine
4. Cocaine	4. LSD
Washington, D.C. ^e	
1. Heroin	1. Heroin
2. Marihuana	2. Marihuana
3. LSD	3. LSD
4. Cocaine	4. Cocaine

^a Serves Washington, Oregon, Montana, Idaho, California, Nevada, Hawaii, Alaska.

^b Serves North Dakota, South Dakota, Nebraska, Kansas, Minnesota, Iowa, Missouri, Wisconsin, Michigan, Illinois, Ohio, Indiana, Kentucky.

^c Serves Oklahoma, Texas, Wyoming, Utah, Colorado, Arizona, New Mexico.

^d Serves Maine, Rhode Island, New Hampshire, Vermont, New York, Massachusetts, Connecticut, New Jersey, Pennsylvania, Delaware.

^e Serves Maryland, West Virginia, Virginia, North and South Carolina, Washington, D.C., Georgia, Florida.

forcement. The number of heroin exhibits submitted by these officers overwhelms the number of exhibits from other sources in the region served by the laboratory. However, if the evidence submitted by the Washington, D.C. police is disregarded, then here also marihuana becomes the drug most frequently analyzed, making this region consistent with the rest of the BNDD laboratories.

LSD is the next drug most often analyzed throughout the West and Midwest, while in New York and Washington, D.C. laboratories, heroin places second. Heroin ranks third throughout the West and Midwest, and LSD is third in the Washington laboratory.

In the New York laboratory, LSD was third in fiscal year 1970, but in fiscal year 1971, cocaine replaced it. Amphetamines ranked fourth in the West in both years, as it did in the region served by the Chicago laboratory. In Dallas, in fiscal year 1970, barbiturates ranked fourth; however, the amphetamines replaced them in fiscal year 1971. Cocaine was

in fourth place for both years in the Washington, D.C. laboratory, and also was fourth in fiscal year 1970 in the New York laboratory. In fiscal year 1971, in New York, cocaine moved into third place, replacing LSD.

Here again, considerable consistency is seen in the character of the workload, although regional differences appear. But caution is in order when drawing conclusions. This information represents only that derived from submissions to the BNDD laboratories, and does not necessarily reflect the national drug problem. For one thing, it could be only a reflection of the enforcement emphasis at the state and local level, because about 75 percent of the BNDD laboratory workload comes from state and local agencies.

BNDD laboratories, as do all forensic laboratories, encounter both clandestinely-made and legitimately-made drugs. The laboratories also encounter a wide variety of drugs that are not controlled by federal drug abuse laws in the United States, although they may be required to bear the prescription legend. Table 4 lists the most frequently seen drugs not controlled by federal law in fiscal years 1970 and 1971. (Passage of the Controlled Substances Act placed a few of these drugs under control in May 1971; however, the short time remaining in the fiscal year would not change the ranking materially.) For both years, propoxyphene, chlordiazepoxide, and diazepam were analyzed with the same relative frequency, and in that order.

TABLE 4—Selected drugs not federally controlled (or not controlled until passage of the Controlled Substances Act), analyzed in BNDD laboratories in fiscal years 1970 and 1971. Listed in order of frequency of occurrence for both years.

Substance Identified	1970	1971
1. Propoxyphene	1	1
2. Chlordiazepoxide HCl	2	2
3. Diazepam	3	3
4. Methapyrilene	...	4
5. Diphenylhydantoin	...	5
6. Hawaiian Baby Wood Rose	4	6
7. Methaqualone	...	7
8. Thioridazine	7	8
9. Diethylpropion	...	9
10. Benactyzine	5	10
11. Pentazocine	...	11
12. Dimenhydrinate	...	11

There is most likely a greater abuse of these drugs than our workload figures would indicate. When these drugs are seized or purchased, it is usually in conjunction with other enforcement action. They also may be obtained because they were alleged, or believed to be, one of the controlled drugs.

Our analyses of drug evidence indicates that the drug user does not really know what he is taking, there is no consumer protection in the drug culture.

For one thing, potency is always an unknown to the buyer of illicit drugs, most of which are clandestinely made. The "cutting" of heroin, for example, is almost always a kitchen affair, using playing cards or other devices to blend the drug and the diluent. The potency of heroin analyzed in BNDD laboratories has ranged from almost zero to 100 percent and there is a wide range between street level potencies, both in time and in place. This range makes it dangerous for the user going from an area where the street potency is very low to an area where the potency is relatively high. Adding to the user's problems,

not only does the potency vary with area, but it will vary from one batch to the next, and can vary markedly between different suppliers. This may result in overdose.

Overdoses are not only caused by higher potencies, however. If the quantity of drug contained in a "deck" or capsule is suddenly increased, even if the potency remains fairly constant, (for example, at 7 percent potency there would be more heroin in 1000 g than in 100 g) an overdose could result. Results of any dose, of course, depend upon the user's habit, the potency, and the quantity of the drug mixture.

LSD-containing samples analyzed by BNDD also have ranged from almost zero potency to potencies bordering on a thousand micrograms. One source has made tablets containing anywhere from 5 to 248 μg of LSD, a range of 243 μg . Another source has made tablets in a range of 12 to 74 μg ; another has made them in a range of 24 to 166 μg , and another has made them in a range of 34 to 220 μg . Such variability is seen over and over again in our files.

This lack of quality control is not only confined to heroin and LSD. The same situation applies to other illicitly marketed drugs. One source of amphetamine tablets is making them in potencies ranging from 6.8 to 14.9 mg. The potency distribution clumps around 10 mg, but with the wide range in potencies, the question arises as to whether the manufacturer is also trying to produce a 5 and a 15-mg tablet. Thus, a situation could arise where a user of 80 to 100 of the 7-mg tablets received a new supply, and started to consume 80 to 100 of the 15-mg tablets. This individual, possibly already with a considerable tolerance to amphetamines, is now suddenly doubling his daily dose. As far as is known, these products are not being sold legitimately in the United States.

Potency variation is not the only thing that is unknown about illicit drugs. One vial of alleged meperidine was analyzed and was found to contain urine, and this points to an area outside of the BNDD mission. The Bureau's laboratories do no bacteriological examinations. BNDD special agents and local police officers both seize clandestine laboratories that make drugs for both oral ingestion and for injection. They find these laboratories operated not only under conditions that lack quality control, but often under conditions that are filthy. The contribution to the morbidity statistics of the United States by unsanitary products from these operations is not known. These sources also must be considered when studying disease and injury associated with drug addiction [8-16].

Although the microbiological aspects are an undetermined hazard, potency was shown to be an uncertainty. There is yet another factor revealed by examination of the results of BNDD laboratory analyses—the drug user never knows for sure just what is mixed with the drug that he thinks he is using. This varies geographically, something of concern to the drug user who travels.

For example, in western United States, quinine is rarely used to cut heroin. Procaine, an analgesic, is commonly found in heroin out West, and brown sugar is sometimes used in an apparent attempt to make the preparation look like "Mexican heroin" to the uninitiated. Quinine, on the other hand, is common east of the Mississippi River, and the potency at which it is added does not appear to be consistent in any given area.

Methapyrilene is a common ingredient in heroin in the upper Midwest, but has recently been encountered in the Northeast, in both heroin and cocaine.

Not only has the Midwestern heroin contained methapyrilene, but it has contained a wide variety of other ingredients in various combinations with the methapyrilene. These have included procaine, quinine, starch, lactose, dextrose, and others. (AtLee [7] reported recently on talc and starch emboli in the eyes of drug abusers. Brust [12] has reported on quinine amblyopia related to heroin addiction. Pickett [13] reported possible potentiation of heroin with cocaine and with quinine.)

Heroin adulterated with quinine is common in the East. The optical isomer of quinine, quinidine, has been identified in heroin encountered in BNDD laboratories in two instances. Quinidine has a greater action on the heart than does quinine; therefore, it would be of great interest to know the true extent of its use as an adulterant agent. Salicylic acid, magnesium sulfate, phenylpropanolamine, caffeine and ephedrine have also been found mixed with heroin.

LSD has been mixed with several drugs, including benactyzine, STP, and PCP. Combinations of LSD-STP, LSD-MDA (3,4-methylenedioxyamphetamine) have been encountered, and LSD-PCP has been quite common during the past year. The PCP in these tablets has ranged from about 0.3 to 4.4 mg, and the LSD has ranged from 7 to 280 μ g. This is an example of two drugs, each having a wide range of potency in illicit products, neither of which alone, has been proven scientifically to be safe or efficacious for any intended human purpose. Together they compose another new drug, and the physiological results, either acute or chronic, are a mystery.

In recent years, there have been numerous reports about the presence of strychnine in LSD. In many instances attempts have been made to acquire the product allegedly containing strychnine, and all LSD exhibits are routinely checked for strychnine, however BNDD has identified strychnine in only one exhibit of LSD. Strychnine has been found in "Red Rock" and "Purple Rock" smoking heroin obtained from the Far East. One exhibit of Purple Rock, for example, contained 48 percent barbital, 32 percent caffeine, 2.5 percent heroin, and 1.5 percent strychnine. (These percentages are not to be construed as typical, for both the ingredients and the potencies may vary from exhibit to exhibit.) Quite recently a report was received from one of the crime laboratories that strychnine had been found in the cadaver of a young male, and capsules containing both benactyzine and strychnine were reported from a crime laboratory and from one of the regional BNDD laboratories.

LSD is taken with impunity, and it is combined with a wide variety of substances to dilute it. To make tablets, it is mixed with such substances as dextrose, lactose, powdered milk, dolomite, brushite, calcium salts, sodium bicarbonate, ascorbic acid, various gums, and a wide variety of colors. The mixture is then run through a tableting machine, usually a small machine, motor driven, having one set of punches. This machine will make about 100 tablets per hour. Many of the tablets are made on machines having several sets of punches, and capable of making several thousand tablets per hour.

Free enterprise enters the picture here. In an attempt to outsell competitors, the tablets are made in various shapes and colors and in combination of colors. Some tablets may bear the so-called "hippie" peace symbol; some are triangular, heart or pentagonal shaped; some are very thin, round discs; and some are cylinders, or "barrels." For a while some LSD tablets were encountered on nicely designed, multicolored display cards. Each card had one tablet in a neatly folded glassine envelope attached at the end of a rainbow. Each card stated the alleged LSD potency in beautiful English script. One source made LSD tablets which were an attractive rose color. In an inspired attempt for pharmaceutical elegance, about 5 percent brass flakes were added, producing a rose-colored tablet with a golden glitter.

LSD has been found on gelatin flakes, throat lozenges, postage stamps, candy, chewing gum, clothing, fingernails, in perfume, in liquor, on toothpicks, and in or on many other materials. The drug is frequently sold in capsules, of course, and, here again, a wide variety of substances are used as diluents. LSD also has been found evaporated on the inside surface of the capsule—one method used to try to fool the forensic chemist.

Cocaine is also mixed with sugars for cutting, and it, too, may contain adulterants or other active components. BNDD laboratories have encountered cocaine with acetanilid, magnesium sulfate, boric acid, procaine, benzocaine, tetracaine, lidocaine and caffeine. The extent of the hazard from these added ingredients, as with heroin, depends, of course, upon their toxicity, potency, the quantity used, the extent of the user's habit and other factors. A cocaine exhibit was found to contain sufficient boric acid to be injurious to the user taking large amounts of the preparations.

The development of "new" drugs apparently has slowed, but has not stopped. For a time, the clandestine laboratory operator boasted that he could keep ahead of the law by developing new compounds or by changing the molecular structure of existing ones. During the past year, BNDD laboratories have identified only one new compound that lasted on the street for any length of time. The drug, 2,5-dimethoxyamphetamine, was sold in capsules, glassine bags, and in tin foil as "MMDA," (3-methoxy-4,5-methylenedioxy-amphetamine), "heroin," and other drugs. It lasted for a few months, but now appears to have all but disappeared from the scene.

Recently, a physician in Northeastern United States reported an alleged "synthetic heroin" which was associated with the death of a young man. The BNDD Special Testing and Research Laboratory identified the compound as *beta*-(4-hydroxy-4-phenylpiperidino) propiophenone, an intermediate for a drug that reportedly is 1000 times more potent than meperidine.

Finally, there is one other important fact revealed by the BNDD laboratory workload. Aside from uncertainty of a drug's potency, and not knowing what other components are mixed with it, the user never really knows what he is getting. "Marihuana" may be parsley, "heroin" may be methamphetamine or "mescaline" might be PCP.

Of all of the suspected heroin submitted to our laboratories in fiscal year 1971, 23 percent was not heroin. A little over 2 percent of the exhibits contained no drug at all. These submissions usually consisted of clothing, pipes, ash trays, had similar items of evidence associated with a police action and are usually examined for traces of drugs. About 14 percent were sufficiently analyzed to determine that they did not contain heroin or some other controlled substances. The remainder, about 7 percent were positively identified, and the drugs most frequently encountered as suspected heroin are listed in Table 5.

Others not listed in the table, for fiscal year 1971, include opium, phenobarbital, diazepam, levorphan, caffeine, secobarbital, ethchlorvynol, pentobarbital, amyl nitrite, chlorpheniramine, meprobamate, codeine, diphenhydramine, barbital, tobacco, mannitol, chlordiazepoxide, oxymorphone, procaine, sucrose, barbital, and antibiotics. In fiscal year 1970, others identified included procaine, ephedrine sulfate, benzocaine, sodium bicarbonate, LSD-PCP powder, aspirin and caffeine, Rochelle salt, meprobamate, mannitol, marihuana, dextrose, caffeine, phenobarbital, warfarin tablets, pyrilamine maleate, antibiotics, and a salicylamide-methapyrilene preparation.

Almost 8000 exhibits of suspected marihuana were analyzed in fiscal year 1971, with 94 percent of the exhibits identified as marihuana. This is a considerable change from a year ago, when, during one 3-month period, almost 20 percent of the suspected marihuana exhibits were found to be another substance. If BNDD files are any indication, many first-time experimenters with marihuana are getting "high" on parsley, alfalfa, or some other weed. They also may be unwittingly smoking opium, PCP, water hemlock, or some other dangerous plant or drug.

In about 5 percent of the exhibits, there was sufficient examination to show that no controlled drug was present. From those identified, Table 6 shows the most frequently

TABLE 5—*Identified substances submitted as suspected heroin listed by frequency of occurrence.*

Substance Identified	1971		1970	
	No.	% ^a	No.	% ^a
Cocaine	98	24	22	12
Quinine	90	22	29	15
Methamphetamine	47	11	4	2
Starch	40	10	6	3
Propoxyphene	13	3	1	...
Aspirin	12	3	5	3
Methapyrilene	12	3	10	5
Morphine	12	3	...	2
Marihuana	11	3	1	...
Lactose	11	3	5	3
Methadone	10	2	...	...
Amphetamines	9	2	...	...
Dextrose	7	2	1	...
LSD	5	1	...	...
MDA	4	1	...	...
PCP	3	1	2	1
Other Substances	...	6	...	54

^a Percentage of identified non-heroin substances in suspected heroin exhibits.

TABLE 6—*Identified substances submitted as suspected marihuana listed by frequency of occurrence.*

Substance Identified	1971		1970	
	No.	% ^a	No.	% ^a
Tobacco	25	21	68	36
PCP	21	18	1	1
Catnip	10	9	9	5
Heroin	4	3	...	...
Methamphetamine	3	3	...	...
Parsley	3	3	1	1
LSD	2	2	3	2
Oregano	2	2	4	2
Tea	2	2	3	2
Opium	2	2	1	1
Alfalfa	1	1	4	2
Other Substances	...	34	...	48

^a Percentage, to nearest whole number, is portion of identified substances.

occurring substance suspected of being marihuana in fiscal year 1971, compared to the amount of the same substances in fiscal year 1970. Other materials not shown in fiscal year 1971 include peyote, mescaline, belladonna, water hemlock, and cinquefoil. In 1970, wild carrot, yellow chamomile, thyme, straw, stramonium and a stramonium preparation, incense, rabbit tobacco, and mugwort were identified.

In fiscal year 1971, there were over 2600 exhibits of suspected LSD analyzed. LSD was identified in 2266 instances and LSD-PCP combination was identified in 127 of the exhibits. No drug was found in 44 of the exhibits, and there were no controlled drugs identified in 116 exhibits. Table 7 lists the most frequently identified substances in the exhibits suspected of being LSD. Among those not listed in the table for 1971 are: secobarbital, amphetamines, and opium.

TABLE 7—*Identified substances submitted as suspected LSD listed by frequency of occurrence.*

Substance Identified	1971		1970	
	No.	% ^a	No.	% ^a
PCP	14	24	22	20
Amphetamine	7	12	2	2
Saccharin	...	...	5	5
Methamphetamine	5	8	3	2
Aspirin	5	8	4	4
Pentobarbital	3	5	1	1
STP	2	3	20	18
Other Substances	...	40	...	48

^a Percentage, to nearest whole number, is based on substances identified.

Cocaine was identified in 85 percent of the suspected exhibits submitted. Of the exhibits identified, 8 percent were found to be other substances. Table 8 shows the frequency with which some of these occurred. These substances included antazoline phosphate, LSD, pentobarbital, marihuana, meprobamate, sucrose, dihydromorphinone, opium, secobarbital, propoxyphene, antihistamines, starch, methapyrilene, methadone, and amyl nitrite. In fiscal year 1970, other substances identified included dextrose, amphetamine-barbiturate mixtures, magnesium sulfate, benzocaine, methapyrilene, amitriptyline and caffeine.

TABLE 8—*Identified substances submitted as suspected cocaine listed by frequency of occurrence.*

Substance Identified	1971		1970	
	No.	% ^a	No.	% ^a
Heroin	18	19	16	31
Quinine	15	15	13	25
PCP	12	12	6	11
Procaine	9	9	2	4
Mannitol	5	5	3	6
MDA	4	4	...	...
Mescaline	4	4	...	...
Methamphetamine	3	3	1	2
Amphetamines	3	3	1	2
Dextrose	3	3	1	2
Lactose	3	3	...	...
Other Substances	...	20	...	17

^a Percentage, to nearest whole number, is based on substances identified.

Amphetamines were identified in over 80 percent of the suspected amphetamine exhibits. Table 9 lists the identified substances that were most frequently found as suspected amphetamines. Others include acetoaminophen, meprobamate, amobarbital, PCP, secobarbital, diazepam, pentobarbital, dextrose, lactose, methadone, heroin, mescaline, STP, antibiotics, methaqualone, starch, propoxyphene, chlorpheniramine, and methylphenidate. In fiscal year 1970, other substances included APC (aspirin, phenacetin, and caffeine) capsules, perchloraperazine, amobarbital, pentazocine, PCP, ephedrine, amitriptyline, cold preparations, ephedrine-phenobarbital preparation, marihuana, amphetamine-barbiturate combination, APC with codeine, propoxyphene, pentobarbital, meprobamate, ethchlorvynol, and cyclizine.

TABLE 9—*Identified substances submitted as suspected amphetamine listed by frequency of occurrence.*^a

Substances Identified	1971		1970	
	No.	% ^b	No.	% ^b
Methamphetamine	37	34	7	18
Caffeine	10	1	7	18
Aspirin	10	1	2	5
MDA	5	4	...	...
Phenobarbital	4	4	...	...
Cocaine	4	4	...	...
LSD	4	4	...	...
Other Substances	...	48	...	59

^a Information on suspected methamphetamine is reported in the narrative.

^b Percentage, to nearest whole number, is based on substances identified.

Of 750 submissions of suspected methamphetamine exhibits, almost 90 percent were identified as methamphetamine. Of the substances not methamphetamine, and identified, 70 percent were amphetamines. Other substances identified were heroin, caffeine, cocaine, diphenhydramine, codeine, aspirin, methaqualone, and phenobarbital. In fiscal year 1970, suspected methamphetamine was found to be phenobarbital, an amphetamine-barbiturate combination, caffeine, quinine, pentazocine, cocaine, STP, LSD-PCP combination, and an amphetamine.

Suspected barbiturates were analyzed in 960 instances. Of those, 7 percent were found not to be a barbiturate. Nonbarbiturates identified included methamphetamine, pentazocine, methapyrilene, diazepam, acetoaminophen, amphetamines, PCP, codeine, vitamins, aspirin, LSD, propoxyphene, hydroxyzine, diphenylhydantoin, meperidine, methocarbamol, chlordiazepoxide, trifluorperazine, amitriptyline, and heroin. In fiscal year 1970, suspected barbiturates were found to be caffeine, meprobamate, glutethimide, amitriptyline, amphetamines, chlorpromazine, propoxyphene, dextrose, methaqualone, isonicotinic acid hydrazide, aspirin, chloral hydrate, methamphetamine, antibiotic, oxazepam, and diphenhydramine.

Psilocybin is rarely encountered now, but out of 27 exhibits of suspected psilocybin, 24 were identified as LSD, and the other three were found to be heroin, PCP, and Hawaiian Baby Wood Rose. In fiscal year 1970, 9 out of 24 were found to be LSD. Others included LSD-PCP, STP, DMT (dimethyltryptamine), PCP, and marijuana.

And the list goes on. BNDD laboratories found suspected MDA to be LSD or chlorpromazine; suspected methadone was identified as methamphetamine, heroin, codeine, LSD, or cocaine; suspected meperidine was secobarbital; opium was LSD, heroin, PCP or something else; STP was LSD or phenobarbital; DMT was PCP or marijuana; and PCP was LSD. (Not included in the 1971 data is a recent analysis of a capsule containing pure potassium cyanide. The chemical, itself, is certainly not new, however, it was contained in a pink, No. 1, hard gelatin capsule resembling a common dosage form of secobarbital sodium.)

It is often asked if BNDD laboratories have encountered synthetic tetrahydrocannabinols (THC). The Bureau has no evidence that THC is being clandestinely manufactured. Indeed, the THC peddled on the street is not tetrahydrocannabinol, at least according to BNDD records. In 83 percent of the submissions, THC was found to be PCP. In the other instances, it was found to be LSD, marijuana, or methaqualone. In fiscal year 1970, suspected THC was identified as PCP in 24 instances. STP, LSD, and cocaine were each identified once.

In 1971, analyses reported here represent 23,000 identified drugs, of which almost 3600, or about 16 percent, were found to be other than the drug suspected. As shown, this varies from a few percent, in the case of some drugs, to as high as 100 percent in the case of THC.

LSD is the drug most often identified in substances alleged or suspected of being something else. Cocaine and methamphetamine occur next, and in that order. In the number of different kinds of drugs falsely represented, both LSD and PCP tie in first place, heroin is second, and methamphetamine is third.

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Laboratory Division, Office of Scientific Support
Bureau of Narcotics and Dangerous Drugs
U.S. Department of Justice
Washington, D.C. 20357