



**PACIFIC
INFORMAT-
ION
SERVICE
ON
STREET-
DRUGS**

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: editors

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STATUS OF DRUG QUALITY IN THE STREET-DRUG MARKET

To launch our third year of publication, it seems desirable to give our readers a quick survey of the street-drug market as it currently operates. The largely self-explanatory tables printed in this issue were abstracted from a paper presented by Brown and Malone on October 15, 1973 at the International Symposia on Alcohol and Drug Research held in Toronto, Canada.

Three of the 4 street-drug analysis programs summarized here are based in California: (i) University of the Pacific, (ii) PharmChem Laboratories of Palo Alto, and (iii) LAC-USC Medical Center of Los Angeles. The data from the fourth program, Metro Drug Awareness of Minneapolis, Minn., have been included since they represent reliable results from an entirely different geographic area relatively far removed from the others. Analytical results have been summarized using the alleged content of the individual samples. Results include only those drug samples assayed from November 1970 through June 30, 1973. The California data actually reflects the entire west coast market. PharmChem does analyses for the University of Oregon as well as for the San Francisco area. The University of the Pacific screens samples for Western Washington State College in Bellingham, in addition to the Stockton and San Francisco areas. The LAC-USC Medical Center program receives the majority of their samples from southern California and primarily from the greater Los Angeles area.

Cocaine is currently the "status" drug and has a market price of \$950 to \$1,500 per ounce. This is the price regardless of whether the product is 100% pure, 6% pure cocaine, 34% cocaine with 4% lidocaine, or 100% amphetamine. This high selling price is the major incentive for a dealer to reduce the amount of cocaine in a sample, to adulterate with a local anesthetic, or to substitute with another drug. As shown in Table I, approximately 55% of the alleged cocaine samples analyzed contained various amounts of cocaine only, approximately 22% were cocaine mixed with a local anesthetic, while the remaining 23% contained another drug or no drug at all. The toxicity of a mixture of cocaine with a local anesthetic is not noticeably affected provided the mixture is taken as a snuff; however, if the mix is injected, the combination can be lethal.

Drug experimenters generally consider the mescaline-induced state to be pleasant and without the danger of overdosage often encountered with street LSD. Hence, they prefer to buy "mescaline" rather than LSD. However, natural mescaline is generally unavailable to the dealer and its synthesis is relatively costly and difficult. Still the dealer provides for his market. Although the usual effective dose of mescaline is widely known to be 300-400 mg., the single "hits" of alleged mescaline weighed in our laboratory had a total single-dose weight of only 10 to 150 mg. As shown in Table II, 581 alleged mescaline samples were analyzed by the 3 California groups. Of these, 356 samples contained various amounts of LSD only -- from a low of 20 micrograms to a high of 450-500 micrograms of LSD per sample (20 micrograms of LSD is ineffective, and any dose over 200 micrograms will produce toxic symptoms unless the individual is a chronic user and tolerant to LSD).

The illicit LSD market has changed very little since 1967. The analytical results of 581 alleged LSD-containing street drugs are tabulated in Table III. The findings of all the laboratories are similar -- most samples contained varying amounts of LSD and occasionally phen-

Table I - Summary of the Results of Analyses of 361 Alleged Cocaine-Containing Street-Drugs

Group Reporting Results	Actual Chemistry				Number of Samples
	Cocaine	Cocaine + Local Anesthetics	Other	Not Identified	
Univ. of the Pacific	10	6 ^a	5 ^b	5	26
PharmChem Laboratories	103	42 ^c	14 ^d	9	168
LAC-USC Med.Center	73	34	33 ^e	4	144
Metro Drug Awareness	11	1	8 ^f	3	23
Totals	197	83	60	21	361

^a Consists of: 4 cocaine+procaine, 1 cocaine+procaine+benzocaine, 1 cocaine+procaine+butacaine.

^b Identified as 1 heroin+amphetamine, 2 procaine, 1 phencyclidine (PCP), and 1 "soap."

^c Consists of: 20 cocaine+procaine, 13 cocaine+xylocaine, 2 cocaine+benzocaine, 4 cocaine+procaine+xylocaine, 2 cocaine+benzocaine+xylocaine, 1 cocaine+local anesthetic.

^d Identified as 1 cocaine+PCP, 2 benzocaine, 3 procaine, 4 xylocaine, 1 cocaine+PCP+LSD, 3 amphetamine.

^e Consists of 14 local anesthetics, 2 amphetamine, 2 heroin, 4 PCP, 1 saccharine, 1 tyramine, 1 heroin+caffeine, 2 barbiturates, 1 LSD, 1 caffeine, 1 potassium nitrate, 1 coca leaves, 1 cocaine+codeine, 1 inorganic sulfate, 1 methapyrilene+caffeine+salicylamide.

^f Identified as 2 procaine and 6 xylocaine.

cyclidine (PCP) was detected in addition to LSD. The addition of PCP to LSD makes medical treatment of overdosage hazardous. The allegations that street-LSD samples frequently contain strychnine appears to be unfounded. We have analyzed several samples thought to contain strychnine on the basis of toxic symptoms, but in each case only LSD was detected -- however, the amount of LSD detected per "hit" was excessive (ranging between 300 and 500 micrograms). None of the other groups doing street drug analyses has reported strychnine in any LSD-containing sample. The answer is that large doses of LSD mimic the symptoms of strychnine poisoning, and large doses of LSD (over 200 micrograms) are frequently encountered on the street-drug market.

Table II - Summary of the Results of Analyses of 640 Alleged Mescaline-Containing Street-Drugs

Group	Actual Chemistry					Number of Samples
	MESC	LSD	LSD + PCP	PCP	Not Identified or Other	
Univ. of the Pacific	1 ^a	50	4	1	22 ^b	78
PharmChem Laboratories	15 ^c	95	34	4	10 ^d	158
LAC-USC Med.Center	10 ^e	211	72	14	38 ^f	345
Metro Drug Awareness	-	20	20	8	11	59
Totals	26	376	130	27	81	640

^a Identified as peyote cactus [*Lophophora williamsii* (Lem.) Coult.].

^b Includes: 2 amphetamine, 1 cocaine, 1 *Cannabis sativa*, 1 LSD+amphetamine, 1 tetracycline, and 16 not identified.

^c Includes 3 peyote cactus.

^d Includes: 1 methamphetamine+phenobarbital, 1 LSD+amphetamine, 1 STP(4-methyl-2,5-dimethoxyphenylisopropylamine), and 7 not identified.

^e Includes 4 peyote cactus.

^f Includes: 2 LSD+amphetamine, 2 STP, 1 LSD+caffeine, 1 LSD+methamphetamine, 2 acetaminophen, and 30 not identified.

The use of the magic mushrooms (*Psilocybe mexicana* Heim) by Mexican Indians and sensational reports on this practice in the popular press have created a real market for their active ingredient -- psilocybin. The analytical results of 284 alleged psilocybin-containing samples are summarized in Table IV. The results show that pure psilocybin is simply not available on the street. The majority of these samples (62%) contained LSD only while 11.3% contained a mixture of LSD and PCP. Ten real psilocybin-containing mushrooms were identified by two of the California groups (PharmChem, LAC-USC). In our laboratory, 3 alleged psilocybin-containing mushrooms were only garden-variety mushrooms to which LSD had been added to give activity.

Pure tetrahydrocannabinol (THC), the active ingredient of *Cannabis sativa* L., continues to be offered to the public of the street-drug market. This compound, in a pure form, is not available whatsoever.

Table III - Summary of the Results of Analyses of 581 Alleged Lysergic Acid Diethylamide (LSD)-Containing Street-Drugs

Group Reporting Results	Actual Chemistry				Number of Samples
	LSD	LSD + PCP	Other	Not Identified	
Univ. of the Pacific	68	1	3 ^a	8	80
PharmChem Laboratories	172	5	6 ^b	3	186
LAC-USC Med.Center	212	10	9 ^c	12	243
Metro Drug Awareness	39	15	11 ^d	7	72
Totals	491	31	29	30	581

^aIncludes: 1 LSD+amphetamine, 1 secobarbital+amobarbital, 1 clindamycin hydrochloride (Cleocin HCl).

^bIncludes: 3 LSD+amphetamine, 1 LSD+methamphetamine, 1 phenacyclidine (PCP), 1 STP (4-methyl-2,5-dimethoxyphenylisopropylamine).

^cIncludes: 1 PCP, 1 hashish, 2 caffeine, 1 calcium carbonate, 1 amphetamine, 1 STP, 1 methalyrilene (Histadyl), 1 benztoprine mesylate (Cogentin).

^dIncludes: 9 PCP, 1 caffeine, and 1 methamphetamine.

The analytical results of 149 alleged THC-containing street-drugs are summarized in Table V. The 5 samples apparently identified as THC were actually concentrated extracts from *C. sativa* known as "hash oil." These samples contained approximately 9-40% THC, which made them very potent preparations. The most frequently identified compound in alleged THC samples was the veterinary product, phencyclidine(PCP). Approximately 77% of the alleged THC street preparations relied on PCP for activity. The ubiquitous LSD was detected in 9 more alleged THC samples.

Amphetamine appears to be readily available in the street-drug market. One of the more frequently encountered dosage forms is a small, flat, compressed tablet with a crossed score that has a total weight of approximately 50 mg. -- these are known as "white crosses" or "mini-bennies." The amount of amphetamine per tablet ranges from a low of 2.5 mg. to a high of 10 mg. The quality of street amphetamine has decreased. A survey to June 30, 1972 of the analytical results of alleged amphetamine street-drugs indicated that approximately 75% of

Table IV - Summary of the Results of Analyses of 284 Alleged Psilocybin (PSI)-Containing Street-Drugs

Reporting Results	Actual Chemistry					Number of Samples
	PSI	LSD	LSD + PCP	Other	Not Identified	
Univ. of the Pacific	-	5	1	-	2	8
PharmChem Laboratories	4 ^a	84	9	7 ^b	12	116
LAC-USC Med.Center	6 ^a	82	10	3 ^c	17	118
Metro Drug Awareness	-	13	12	12 ^d	5	42
Totals	10	184	32	22	36	284

^a Identified as psilocybin-containing mushrooms.

^b Includes: 3 phencyclidine (PCP), 1 STP (4-methyl-2,5-dimethoxy-phenylisopropylamine), 1 LSD+PCP+amphetamine, 1 LSD+amphetamine, 1 ergot alkaloids.

^c Includes: 1 PCP, 1 mescaline, 1 N,N-dimethyltryptamine+amphetamine.

^d Consists of 12 PCP.

of these samples contained various amounts of amphetamine or methamphetamine (speed) as the only active ingredient. The current summary (Table VI) shows that the percentage now has dropped to approximately 65% -- a decrease of 10%. Occasionally the amphetamine was accompanied by a barbiturate (an effective antagonist of the stimulant effects of the amphetamines). Strychnine was detected in 2 samples -- once mixed with amphetamine and once mixed with propoxyphene (Darvon). Sixty-five samples contained a wide variety of non-amphetamine drugs such as caffeine, barbiturates, ephedrine, and local anesthetics and in 24 samples no drug whatsoever was detected.

LSD continues to be the most widely available street-drug. It was reported to be a constituent of 68% of the street-drugs summarized in Tables I-VI. This would suggest that LSD is the compound most readily available to street drug manufacturers and dealers. It is widely used to give "activity" to alleged mescaline- and alleged psilocybin-containing merchandise. When these data were divided into two groups: (i) for California and (ii) for the Minneapolis area, it was apparent that there was large percentage difference in the frequency of LSD in these areas e.g. a 73.5% incidence in California as compared to only 40.7% incidence in Minnesota. Statistically this difference is very highly significant.

Table V - Summary of the Results of Analyses of 149 Alleged Tetrahydrocannabinol (THC)-Containing Street-Drugs

Group Reporting Results	Actual Chemistry				Number of Samples
	THC	PCP	Other	Not Identified	
Univ. of the Pacific	-	14	1 ^a	4	19
PharmChem Laboratories	5 ^b	32	1 ^c	1	39
LAC-USC Med.Center	-	44	15 ^d	2	61
Metro Drug Awareness	-	25	4 ^e	1	30
Totals	5	115	21	8	149

^a Identified as chlordiazepoxide (Librium).

^b Not synthetic THC but concentrated ("Hash Oil") extracts of Cannabis sativa containing approximately 9 to 40 % THC (27).

^c Identified as LSD.

^d Includes: 3 LSD+phencyclidine(PCP), 4 local anesthetics, 5 TCP, a thionyl analogue of PCP (28), 1 PCP+doxepin hydrochloride (Sinequan), 1 LSD, and 1 MDM(3,4-methylenedioxymethamphetamine).

^e Identified as 4 LSD.

Phencyclidine was detected in 15.4% of all the samples reported here. It was most frequently found in alleged tetrahydrocannabinol samples and reputedly added to LSD-containing samples to "smooth out the trip." Since the dosage range of LSD found in street preparations varies so widely and overdosages are common, the addition of PCP to these preparations actually presents an increased hazard for the user. It is relatively easy medically to block an overdose of LSD alone, but it is life-threatening to try this same treatment on a person suffering an overdose of a LSD-PCP mixture. PCP was detected in 29.6% of the samples analyzed by the Minneapolis group and in only 12.9% of the samples analyzed by the 3 California groups. Statistically this difference is very highly significant. This indicates that PCP is more readily available in Minnesota than in California. Since street PCP is probably diverted from legal (veterinary) channels of distribution, this greater availability in Minneapolis raises some interesting questions as to how this diversion is accomplished.

This difference in distribution appears also to apply to the illicit amphetamines, since there was a 20.2% incidence with the Minneapolis

Table VI - Summary of the Results of Analyses of 300 Alleged Amphetamine (AMP)-Containing Street-Drugs

Group Reporting Results	Actual Chemistry				Number of Samples
	AMP	AMP + BARB	Other	Not Identified	
Univ. of the Pacific	31 ^a	1	5 ^b	5	42
PharmChem Laboratories	34 ^c	-	6 ^d	1	41
LAC-USC Med. Center	62	5	24 ^e	11	102
Metro Drug Awareness	68	-	40 ^f	7	115
Totals	195	6	75	24	300

^aThis includes 29 samples of "White Crosses."

^bIncludes: 1 caffeine, 1 phenobarbital, 1 pentobarbital, 1 sodium chloride, 1 phentermine (Ionamine).

^cIncludes 2 methamphetamine.

^dConsists of 1 LSD, 1 barbiturate, 1 chlorpheniramine.

^eConsists of 1 AMP+strychnine, 1 propoxyphene+strychnine, 1 barbiturate, 1 secobarbital, 1 local anesthetic, 5 ephedrine, 1 tetracycline, 1 prednisone, 1 aminophylline, 2 phendimetrazine (Plegine), 1 diazepam (Valium), 1 AMP+salicylic acid, 3 phenylpropanolamine, 1 cocaine+procaine, 1 MDA(3,4-methylenedioxyphenylisopropylamine).

^fIdentified as 36 caffeine, 3 ephedrine+caffeine, and 1 lactose.

results while only 7.9% incidence with the California results. Conversely, cocaine appears to be less available in Minnesota (3.5%) than in California (13.8%). Again, statistically these differences are very highly significant.

It has been said that the patterns of drug use originate in California and spread elsewhere -- this would predict increased availability of LSD and cocaine in Minneapolis in the years ahead. However, the converse may also be true if law enforcement succeeds in stamping out the underground sources of LSD and cocaine. The street market must be satisfied and the profit bypasses income taxes. Amphetamine and PCP can be successfully diverted from existing commercial (legal) channels of distribution. Therefore, if shortages of illicit LSD and cocaine develop, one can predict the increased distribution of PCP and the amphetamines in the California street-drug market.

-- J. K. Brown and M. H. Malone -- October 26, 1973

Some useful connections for information & friendship

Friends Incorporated	24 Hour Crisis (209) 464-7086
1420 N. California Street	Free Clinic (209) 464-4120
Stockton, California	Information (209) 464-4050

Director: Lou Hardy

Haight-Ashbury Free Medical Clinic - San Francisco, California 94117

Medical & Dental Section	Psychological Services
558 Clayton Street	409 Clayton Street
Tel: 431-1714	Tel: 621-8259

Drug Detoxification, Rehabilitation and After Care Project
529 Clayton Street
Tel: 621-2014
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