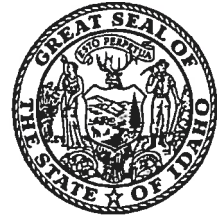




Idaho State Police

Service since 1939



Colonel R. Dan Charboneau
Director

Dirk Kempthorne
Governor

MEMORANDUM

TO: Ralph Powell, Major

FROM: Don Wyckoff, Laboratory Manager *DW*

DATE: September 8, 2003

SUBJECT: Five-Year Trends in the Toxicology Program (1998-2003)

Overview

Included herein is a synopsis of the five-year trend in toxicology analyses by the Forensic Services. The information also includes data that has been collected over the last year from State and federal sources and attempts to correlate the trends observed.¹ Table 1 provides the breakdown of the samples, by type, as submitted to the laboratory during FY2003. There was a 23% increase in the number of toxicology samples submitted during this last fiscal year.

<u>Sample Type</u>	<u>Count</u>	<u>Percent</u>
DRE		
Juvenile	26	1.9
Adult	143	10.3
NJDT	18	1.3
DUID		
Juvenile	136	9.8
Adult	468	33.7
Probation & Parole		
Juvenile	142	10.2
Adult	116	8.4
Other Criminal	198	14.3
Other Non-criminal	107	7.7
Accident Victims	34	2.4
Total	1388	100.0

Table 1: Breakdown of Toxicology Samples Received by ISP-FS in FY2003.

¹ The trend sources used are the 2002 Crime in Idaho, Drug Enforcement Administration 2002 Annual Report, and the Drug Abuse Warning Network 2002 Report.

Idaho's casework is compared with what information is available relating to toxicology analyses and drug seizures within the US. The reason for this is: 1) to provide some relationship to the national scene, and 2) determine, from demand, availability, and seizure statistics on drug use, if ISP-FS casework conforms to what is expected in the drug using population in which Idaho LE comes into contact.

Nationally, positive toxicology submissions during the last year have reported findings of alcohol in combination with drugs (33%), cocaine (29%), marijuana (17%), amphetamines (5%), with all others comprising the remaining 16% (hallucinogens and benzodiazepines are the largest portion of this percentage). Unfortunately, these national numbers are not similar to Idaho's, as multiple drug use was not delineated in this study (and it is the only one available that comprises 2002 statistics).

During 2002, drug seizures in the US centered around four drugs: cannabis, cocaine, methamphetamine, and heroin. These four drugs constituted 79% of all drug seizures in this country during this time period. There were a variety of drugs that made up the remaining 21% of seizures. Hallucinogens, including the "rave" drugs (i.e., MDMA and MDA) constituted the largest portion of this 21%, but central nervous system depressants (i.e., benzodiazepines [diazepam and related drugs], barbiturates, and muscle relaxants [carisoprodol]) were also prevalent.

In the western US, methamphetamine is the drug in greatest demand, with cannabis and cocaine following in relative order. Also, the demand and abuse of CNS-depressants is nearly as great as the demand and abuse of heroin in the West. ISP-FS still mostly analyzes methamphetamine samples (in quantities equivalent to nearly all other drugs); however, our seizures of clandestine laboratories have dropped off considerably, and with it the corresponding laboratory casework.

Figures A, B, and C depict the trends in the types and numbers of samples that have been submitted since at least 1998. The most noticeable change during the last year is the relative increase in DUID and decrease in the non-criminal sample percentages. The percentage of other samples is within percentage ranges of the past.

NJDT Trends

During FY2003 the Forensic Services received only eighteen NJDT samples. Agencies submitting these samples were: Ada Co. SO (7), Boise PD (1), Emmett PD (1), Meridian PD (2), Payette PD (1), Shelley PD (1), Sho-Ban School (3), and Twin Falls PD (2). The NJDT samples submitted represent just slightly greater than one percent of all samples submitted and represents the fewest number of samples ISP-FS has ever received (a thirty percent drop from the previous year low of 26). However, the percentage of positives still remains high at 84%. Figures 1 through 6 depict this data.

Cannabis, whether alone or used in combination with other drugs, is the most abused drug within this population sampling. This sample is also noteworthy in that abuse of

multiple drug combinations (THC/NCA) increases again this year, even with a smaller sample size than in previous years.

There is still no way of gauging the numbers in the student population who are suspected of alcohol-only consumption. These subjects would most likely be tested on breath testing devices and would not be part of ISP-FS caseload.

Juvenile Trends

Figures 7 through 11 summarize the results of all juvenile samples (including NJDT) since 1999. Overall the number of samples submitted to the laboratory has remained fairly constant over the last two years.

The trend is toward a lower percentage of the population that are using just marijuana, with multiple drug use taking on a greater percentage (for the first time this category is above 10%). Within the multi-drug use population it appears that CNS-depressant abuse is also on the rise, whether used alone or in combination.

Figure 33 shows the breakdown of juvenile alcohol samples submitted. None of these samples is related to NJDT testing.

DRE Trends

Figures 12 through 17 are the results of DRE sample over five years. There tends to be a declining trend in the number of DRE samples submitted to the laboratory and this reflects the fewer DRE officers within the LE population. ISP trained a new group of DRE officers at the latter end of this FY, but it was too late to impact the submissions.

There is a slight decrease in the percentage of the population that has CNS-stimulants present. This is the first decrease in abuse of this class of drugs for a considerable time.

Adult Trends

Figures 18 through 22 depict the results of adult toxicology samples since 1999. Of the total adult population sampled 37% had at least THC present and 16% had at least a CNS stimulant present. Both figures represent marked increases in abuse for the particular drug class during 2003. As in the past, the number of negatives is relatively high within this population, but this is mainly due to the fact that many crime victims are included within this sampling. (For example, date rape drugging was suspected in a very large number of samples submitted, of which only two were positive for any drug at all.)

Since 1999, the categories of individuals having multi-drug combinations increased, but during 2003, the number of different categories decreased. This change is especially noticed within the narcotic analgesic (NA) group, as there were no submissions containing NAs only and a smaller percentage of NA in combination with other drugs. Controls placed on oxycodone (e.g., OxyContin) over the last couple of years have

probably influenced the downturn of NA use, as this drug was the most abused of the group during this time frame.

Figure 34 depicts the breakdown of adult blood alcohol only samples submitted to the laboratories.

Accident Victim Trends

Thirty-four accident victim samples were submitted during FY2003. Figures 35 through 38 correspond to this data. This is the first complete year where this group has been reviewed. Both adult (31 in toxicology and 74 in alcohol) and juvenile (3 in toxicology and 11 in alcohol) results are depicted in the graphs.

Summary

Figures 23 through 32 depict the results of all samples submitted to the laboratories, broken down into the various categories. Slight variations in percentages are present between 2002 and 2003, but other than the percentage of negatives, there is little change. There was no change in the percentage of samples (approximately 1%) that had all seven categories of drugs present, from 2002 and 2003.

Approximately 10,000 Idahoans were arrested for DUI during 2002. This represents slightly less than 1% of the population, of which ISP-FS analyzed about 2% of the samples.

Some preliminary reports on hospital submissions related to overdose are recently available (July 2003). Cocaine, heroin, marijuana, alcohol (alone or with drug mixtures), and benzodiazepines account for nearly 90% of ER overdose visits. Benzodiazepines and narcotic analgesics showed the greatest increase in abuse during the one-year study (up 14% and 21%, respectively). There has been a trend in the rise of marijuana admission cases over the last few years, and this has been attributed to the rise in the percentage of THC in plant material.

Overall, there tends to be good correlation between the toxicology workload and what is suspected for abuse in the State's population. Unfortunately, no information was available on ER submissions within Idaho and therefore little can be concluded.

It has been reported that school personnel involved in the program have complained about the slow reporting of results from ISP-FS versus other programs, and this therefore reflects on the caseload of NJDTs. In the opinion of ISP-FS toxicologists, the numbers of samples have never been large enough to support this contention. The time that results take for school personnel to receive such are based on: 1) the fact that ISP-FS sends results back to the submitting officer without notifying a school that results are available (this will be remedied in the future), and 2) ISP-FS insistence on confirmatory testing (other vendors operating only screening systems cannot insure results—although such may be claimed).

Complaints on slow turn around have not been borne out in correspondence with school SRO/DREs. Coincidentally, most of the NJDT caseload since the time of this program's inception have arisen out of the Treasure Valley area, which is also where ISP and POST have training personnel who have worked on setting up the programs for those schools. In fact, school district policy, for those contacted in areas in SE Idaho, appears to only be contacting parents and sending a student home if drug use is suspected. A number of these same school district personnel also had no idea that ISP-FS would even analyze such samples.

If you have questions concerning this report, please feel free to contact me.