



MEMORANDUM

TO: Ralph Powell, Major

FROM: Don Wyckoff, Laboratory Manager

DATE: September 24, 2001

SUBJECT: Toxicology Sample Profile for FY 2001

During FY2001 the Forensic Services received 1454 toxicology samples for analysis. This is an increase of nearly 24% from FY 2000. Table 1 provides a breakdown of the samples by types, as submitted to the laboratory.

<u>Sample Type</u>	<u>Count</u>	<u>Percent</u>
DRE		
Adult	164	11
Juvenile	11	1
NJDT	67	5
Probation & Parole		
Adult	167	11
Juvenile	210	14
Other Criminal		
(Rape, Homicide, Assault, etc. suspects)	214	15
Death		
(Non-homicide)	77	5
DUID	544	37
<i>DIP's</i>		
TOTAL	1454	100

Table 1: Breakdown of toxicology samples received by Forensic Services in FY 2001.

There were marked sample increases in P&P (7%), DUID (30%), and other criminal categories (73%) from the previous year; however, DRE samples continued to decline (15%) during this same period. Overall there was a 16% increase in the number of adult toxicology samples submitted and an 8% in the number of juvenile samples analyzed.

There was a two percent increase in violent crime in Idaho during calendar year 2000 and this probably accounts for some of the increase in our workload. This increase may also portend a continuing rise in violent crime during calendar year 2001, especially since there was such a large increase in the other criminal category.

Juvenile Toxicology Trends

There were 330 juvenile toxicology samples submitted and this constituted about 20 percent of all samples analyzed. NJDT samples made up thirty percent of all juvenile samples during the year. Table 2 breaks down the overall juvenile toxicology results while Table 3 breaks down the NJDT samples.

NJDT samples were received from the following agencies: Ada Co. SO (7), Bannock Co SO (1), Boise PD (3), Buhl PD (4), Canyon Co. SO (4), Caldwell PD (10), Gooding Co SO (1), Hailey PD (1), ISP-3 (3), ISP-2 (2), ISP-1 (1), Lewiston, PD (5), Meridian PD (3), Parma PD (9), Pocatello PD (5), Owyhee Co SO (1), and Twin Falls PD (7).

<u>Specimen Result</u>	<u>Number of Samples</u>	<u>Percent</u>
Negative	19	28
Single Drug Present		
THC	40	60
CNS Depressant	2	3
Drug Combinations Present		
THC/CNS Stimulant	3	4
THC/CNS Depressant	2	3
CNS Depressant./DNS Stimulant/ Narcotic Analgesic	1	1
TOTAL	67	100

Table 2: Breakdown of NJDT Samples Received During FY 2001.

Table 3 breaks down all of the juvenile toxicology samples submitted to the laboratory. As in previous years it can be seen that the NJDT population mirrors fairly closely the overall juvenile population in the type of drugs abused.

Over the four years that we have been collecting and analyzing NJDT samples, it appears that the individuals assessing young adults for drug abuse are becoming better able to discern people under the influence. This is borne out by the trend toward fewer negative samples being submitted (39% in 1998 versus 28% in 2001).

Overall, the percentage of negatives analyzed in the juvenile population samples has been fairly constant at about 25% throughout the four years that we have been keeping

numbers. This percentage is also fairly constant throughout a given population or the entire toxicology sample population as a whole.

Over time the juvenile population is beginning to mirror the adult population in the types of drugs that they are using, the combinations detected, and the percentages of the group using a particular drug. Five years ago, juveniles were using almost exclusively marijuana only. Although they (juveniles) use marijuana to a greater percentage than other groups, it is obvious that other drug types are becoming more abused within the population.

Although a number of juveniles reported known or probable surreptitious abuse of date rape drugs (e.g., GHB and Rohypnol), none were detected in any of the samples. This is a change from the previous year as a number were reported and detected at that time.

DRE Toxicology Trends

The laboratory received 174 DRE samples from agencies throughout the State during the last fiscal year. This constituted about 12 percent of the total toxicology samples submitted. Table 4 breaks down the results of the DRE samples.

Similar to the last two years, the number of DREs continues to decline. This is probably due to the decreasing number of DRE officers on the road. Although we have trained a number of new officers in the DRE protocol, I think that many of the officers are advancing within their departments faster than we provide the training to replace them. It is also possible that many of these officers may be pursuing employment outside of Idaho, due to the demand for personnel trained in these apprehension procedures.

Training that DRE officers undergo definitely impacts the number of negatives that the laboratory receives. This increased training and practical experience, results in a 64% decline in the percentage of negative submitted (25% for the officers/personnel in general versus 9% for DRE officers). It also appears that these officers are better able to discern the types of drugs that are impairing individuals, due to the greater number of categories of drugs found by this sampling group.

<u>Specimen Result</u>	<u>Number of Samples</u>	<u>Percent</u>
Negative	125	38
Single Drug Present		
THC	152	46
Narcotic Analgesic	8	4
CNS Stimulant	22	10
CNS Depressant	4	2
Drug Combinations Present		
THC/CNS Stimulant	14	6
THC/CNS Depressant	2	1
CNS Stimulant/Narcotic Analgesic	1	<1
THC/CNS Stimulant/ Narcotic Analgesic	1	<1
CNS Depressant/CNS Stimulant/ Narcotic Analgesic	1	<1
TOTAL	330	100

Table 3: Breakdown of Juvenile Toxicology Results for FY 2001.

<u>Specimen Result</u>	<u>Number of Samples</u>	<u>Percent</u>
Negative	16	9
Single Drug Present		
THC	50	29
CNS Stimulant	16	9
CNS Depressant	9	5
Narcotic Analgesic	5	3
Drug Combinations Present*		
THC / CNS-S	29	17
CNS-D / NA	17	10
CNS-S / CNS-D	6	4
THC / CNS-S / CNS-D / NA	5	4
THC / CNS-S / CNS-D	6	4
CNS-S / CNS-D / NA	4	2
THC / CNS-D	2	1
THC / CNS-S / NA	3	1
THC / CNS-D / NA	3	1
CNS-S / NA	3	1
TOTAL	174	100

Table 4: Breakdown of DRE Sample Results for FY 2001.

*THC=Marijuana; CNS-S=CNS Stimulant; CNS-D=CNS Depressant; NA=Narcotic Analgesic.

Adult Toxicology Trends

Adult toxicology totaled 439 samples submitted to the laboratory during FY2001, which constituted 30% of all of the samples. Table 5 breaks down the results for the samples.

There were a higher number of negatives in this population this year than in the past and this percentage is up substantially. This may be due to the fact that more victims are being included in this population and also that accident victims were included in the profile this year, whereas they were overlooked in the past.

<u>Specimen Result</u>	<u>Number of Samples</u>	<u>Percent</u>
Negative	182	42
Single Drug Present		
THC	88	20
CNS Stimulant	42	10
CNS Depressant	27	6
Narcotic Analgesic	9	2
Drug Combinations Present*		
THC / CNS-S	40	9
CNS-D / NA	15	3
CNS-D / CNS-S	9	2
CNS-D / CNS-S / NA	7	2
THC / CNS-D / NA	7	2
THC / CNS-S / NA	6	1
THC / NA	3	1
CNS-S / NA	2	<1
THC / CNS-D	2	<1
TOTAL	439	100

Table 5: Breakdown of Adult Toxicology for FY2001.

*See Table 4 for abbreviations

Overall Toxicology Profile

Table 6 breaks down the overall results for all samples submitted to the laboratories. Generally there has been a decline in the abuse of marijuana during the last few years (39% in 1998 versus 30% in 2001) and a rise in multiple drug use (14% in 1998 versus 19% in 2001). Regarding multiple drug use, during 1998 only four different groupings of the drugs of abuse categorized all such samples. Today the number of categories needed to take in all multiple drug use has nearly doubled (9).

Dismissing the P&P samples, the laboratories analyzed just less than 2% of all arrests for Type A and B crimes that occurred in Idaho during FY2001. If the other criminal, NJDT, and P&P samples are dismissed then the laboratories analyzed approximately 7% of all DUID arrests made in Idaho during the fiscal year.

<u>Sample Result</u>	<u>Number of Samples</u>	<u>Percent</u>
Negative	501	34
Single Drug Present		
THC	446	31
CNS Depressant	67	5
CNS Stimulant	160	11
Narcotic Analgesic	38	3
Multiple Drugs Present*		
THC / CNS-S	114	8
CNS-D / NA	35	2
CNS-D / CNS-S	16	1
CNS-D / CNS-S / NA	13	<1
THC / CNS-D / CNS-S	11	<1
THC / CNS-D	9	<1
CNS-S / NA	9	<1
THC / CNS-S / NA	14	1
THC / CNS-D / NA	7	<1
THC / CNS-D / CNS-S / NA	5	<1
THC / NA	9	<1
TOTAL	1454	100

Table 6: Breakdown of all Toxicology Samples Received during FY2001.

* See Table 4 for abbreviations.