

A Study of Drug Progression

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Narcotics Division
Government Secretariat
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Hong Kong Jockey Club Drug InfoCentre

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RATIONALE

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A Study of Drug Progression

RATIONALE

Drug prevention programmes will be more effective if the messages presented are close to the reality. This study analyses the data reported to the Central Registry of Drug Abuse (CRDA) with a view to ascertaining the drug progression pattern adopted by drug abusers with selected initial drug of abuse. The results will confirm or otherwise the common belief that drug abusers starting with certain drug will subsequently abuse other drugs. The research findings also provide the quantitative basis for reference in the formulation of relevant preventive education and publicity programmes.

OBJECTIVES

2. The specific objectives of the research are four-fold, as follows :
 - a) To examine if a person initially reported to the CRDA as abusing a certain drug is more likely to be reported to the CRDA again than a person initially reported as abusing another drug;
 - b) To examine if a drug abuser who initially abuses a certain drug will subsequently abuse other types of drug;
 - c) To study the pattern in drug progression for drug abusers with different initial drug of abuse; and
 - d) To compare the findings for selected sub-groups of drug abusers to identify the similarities and differences among them.

SUBJECTS UNDER STUDY

3. This research covers persons newly reported to the CRDA from 1988 to 1990, with their initial drug of abuse fall into the five categories viz., heroin, cannabis, cough medicine, depressants and tranquillizers. All the reports up to five years from the year of first reporting are included in the analyses. Following the aforesaid criteria, the sample size attained for each of the five categories of drug is :

<u>Initial drug of abuse</u>	<u>No. of subjects for study</u>
Heroin	2070
Cannabis	562
Cough medicine	135
Depressants	97
Tranquillizers	142
Total	3006

DETAILED FINDINGS

4. The following paragraphs present the detailed analyses for the study. Separate analyses have been carried out for drug abusers with initial drug of abuse in the above five categories. Moreover, a comparison of major statistics for males and females, and for the under 21 and 21 & over groups are also included.

All Subjects

Subsequent Reporting to CRDA

Table 1 : Persons with Subsequent Report by Initial Drug of Abuse

	(%)				
	Heroin N=2070	Cannabis N=562	Cough medicine N=135	Depressants N=97	Tranquillizers N=142
With Subsequent Report	64.2	39.1	56.3	37.1	38.0
Without Subsequent Report	35.8	60.9	43.7	62.9	62.0

5. Table 1 presents the percentages of subsequent reporting by the five selected initial drugs of abuse. The statistics show that for those start with heroin and cough medicine, more than half of them are subsequently reported to the CRDA, while for those start with cannabis, depressants and tranquillizers, the percentages of subsequent reporting are lower, at around 40%.

Pattern in Subsequent Reporting

Table 2 : Subsequently Reported Persons by No. of Subsequent Reports by Initial Drug of Abuse

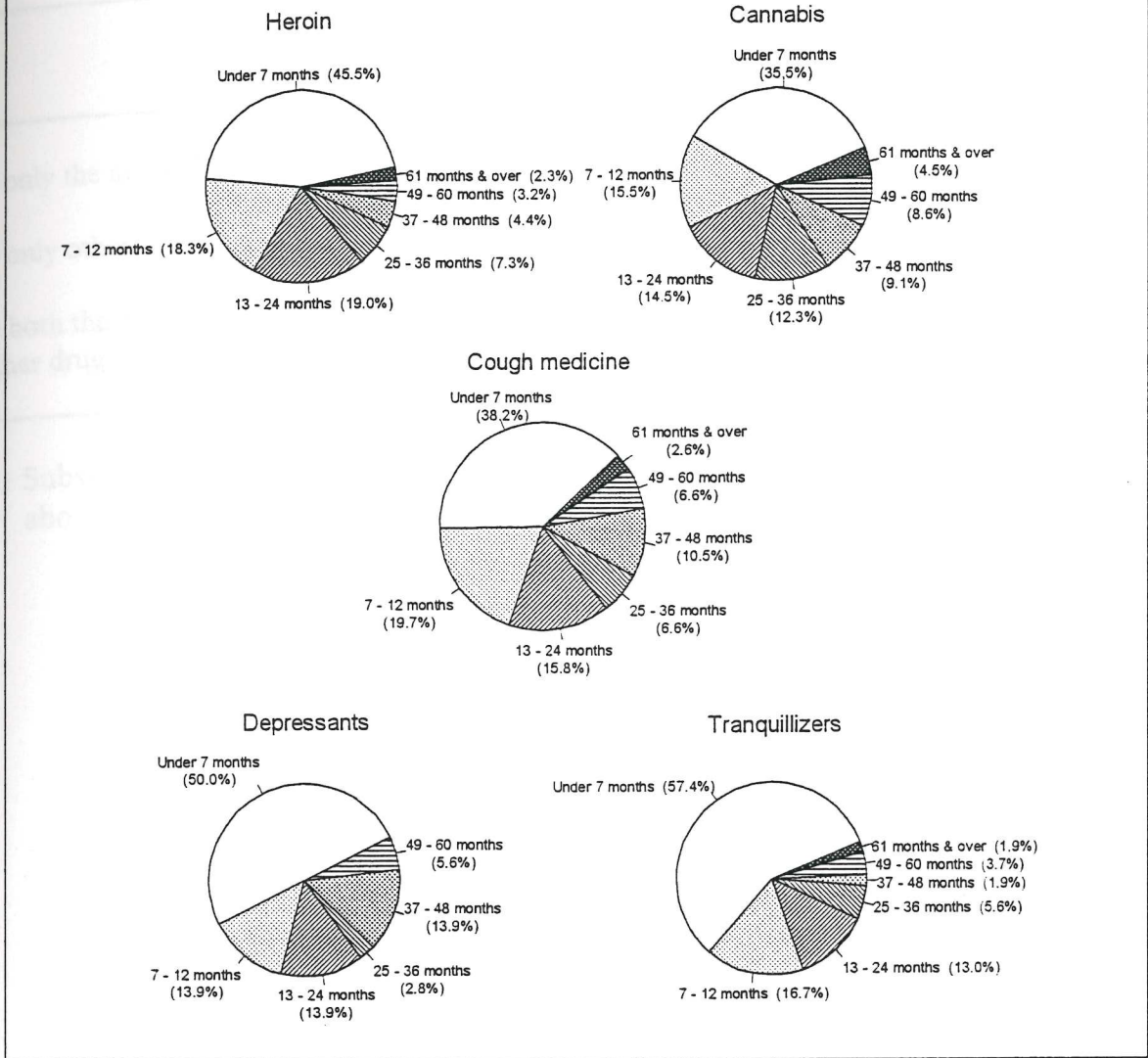
	(%)				
	Heroin N=1328	Cannabis N=220	Cough medicine N=76	Depressants N=36	Tranquillizers N=54
<5	47.1	75.0	75.0	66.7	74.1
5 - 8	28.4	17.3	18.4	22.2	14.8
9 - 12	16.7	4.1	3.9	5.6	7.4
>12	7.8	3.6	2.6	5.6	3.7
Mean Number	5.8	3.4	3.3	3.9	3.7

6. Table 2 analyses the number of subsequent reports to CRDA for subsequently reported persons. Among the five selected categories, persons initially abuse cannabis, cough medicine and tranquillizers are noted to have less reports than those start with heroin and depressants. The average number of subsequent reports is highest for persons initially abuse heroin (5.8) and lowest for persons initially abuse cough medicine (3.3).

Table 3 : Subsequently Reported Persons by Time Lag to First Subsequent Report by Initial Drug of Abuse

	(%)				
	Heroin N=1328	Cannabis N=220	Cough medicine N=76	Depressants N=36	Tranquillizers N=54
Under 7 months	45.5	35.5	38.2	50.0	57.4
7 - 12 months	18.3	15.5	19.7	13.9	16.7
13 - 24 months	19.0	14.5	15.8	13.9	13.0
25 - 36 months	7.3	12.3	6.6	2.8	5.6
37 - 48 months	4.4	9.1	10.5	13.9	1.9
49 - 60 months	3.2	8.6	6.6	5.6	3.7
61 months & over	2.3	4.5	2.6	-	1.9
Mean no. of months	13.1	20.1	17.0	13.8	11.5

Chart 1 Subsequently Reported Persons by Time Lag to First Subsequent Report by Initial Drug of Abuse



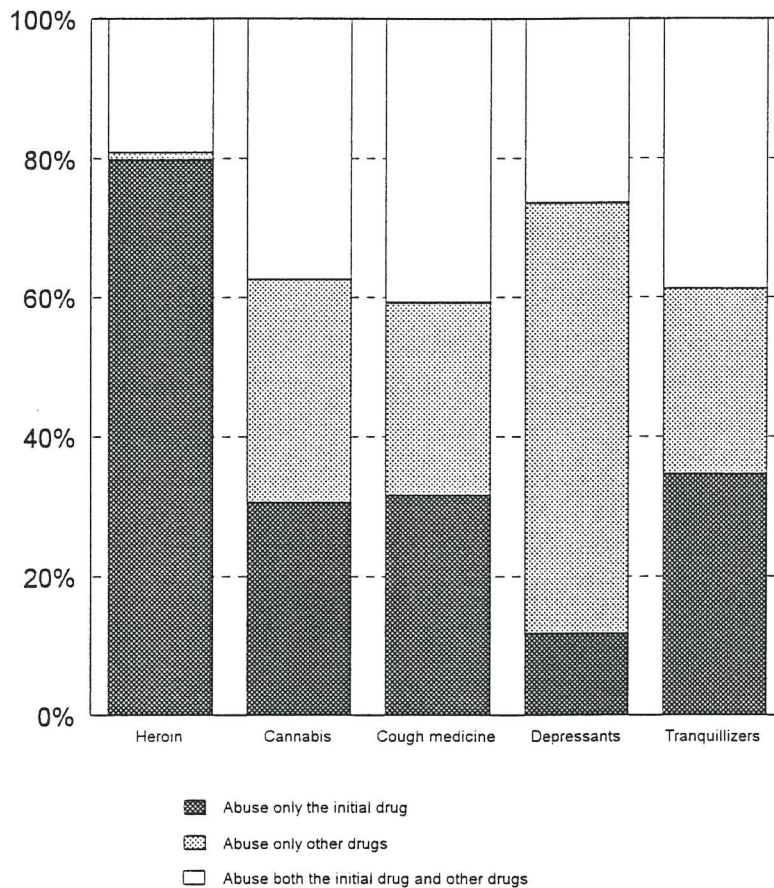
7. Table 3 and Chart 1 show the time lag to first subsequent report for the five categories of drug abusers. Among the five, it is noted that a greater proportion (57.4%) of persons abusing tranquillizers as their initial drug of abuse will be reported to the CRDA again within half a year, while the corresponding percentage for those initially abuse cannabis is lowest (35.5%). The statistics also show that for persons start with abuse of cannabis, cough medicine and depressants, over 15% have their first subsequent report after three years.

Table 4 : Subsequently Reported Persons by Whether Subsequently Abuse Other Drugs by Initial Drug of Abuse

	Heroin N=1281	Cannabis N=206	Cough medicine N=76	Depressants N=34	Tranquillizers N=49
Abuse only the initial drug	79.9	30.6	31.6	11.8	34.7
Abuse only other drugs	1.0	32.0	27.6	61.8	26.5
Abuse both the initial drug and other drugs	19.1	37.4	40.8	26.5	38.8

Note : Subsequent reports without the type of drug specified are excluded from the above analysis.

Chart 2 Subsequently Reported Persons
by Whether Subsequently Abuse Other Drugs



8. Table 4 and Chart 2 analyse the subsequently reported persons by whether they subsequently abuse other drugs. The statistics show that persons start with heroin are less likely to take other drugs subsequently (20.1%), while for the other four categories, the corresponding percentages in descending order are 88.3% for depressants, 69.4% for cannabis, 68.4% for cough medicine and 65.3% for tranquillizers.

Table 5 : Comparison of Subsequent Reporting Pattern for Persons Having Subsequent Reports with and without Other Drugs

	Heroin		Cannabis		Cough Medicine		Depressants		Tranquillizers	
	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)
Mean number of subsequent reports	5.3	8.5	1.5	4.4	2.0	3.9	1.3	4.4	1.8	5.1
Mean time lag to first subsequent report (months)	13.0	10.2	19.6	19.8	14.2	18.3	4.1	15.8	6.3	13.4

Note :

Column (a) - Persons abuse the initial drug only for the specified initial drug of abuse.

Column (b) - Persons abuse other drugs for the specified initial drug of abuse.

9. Table 5 compares the mean number of subsequent reports and mean time lag to first subsequent report for the five selected initial drugs of abuse, with separate breakdown for those with subsequent reports on other drugs of abuse. The findings indicate that the category with subsequent reports in other drugs has a greater number of subsequent reports and except for those initiating with heroin, has a greater time lag to their first subsequent report.

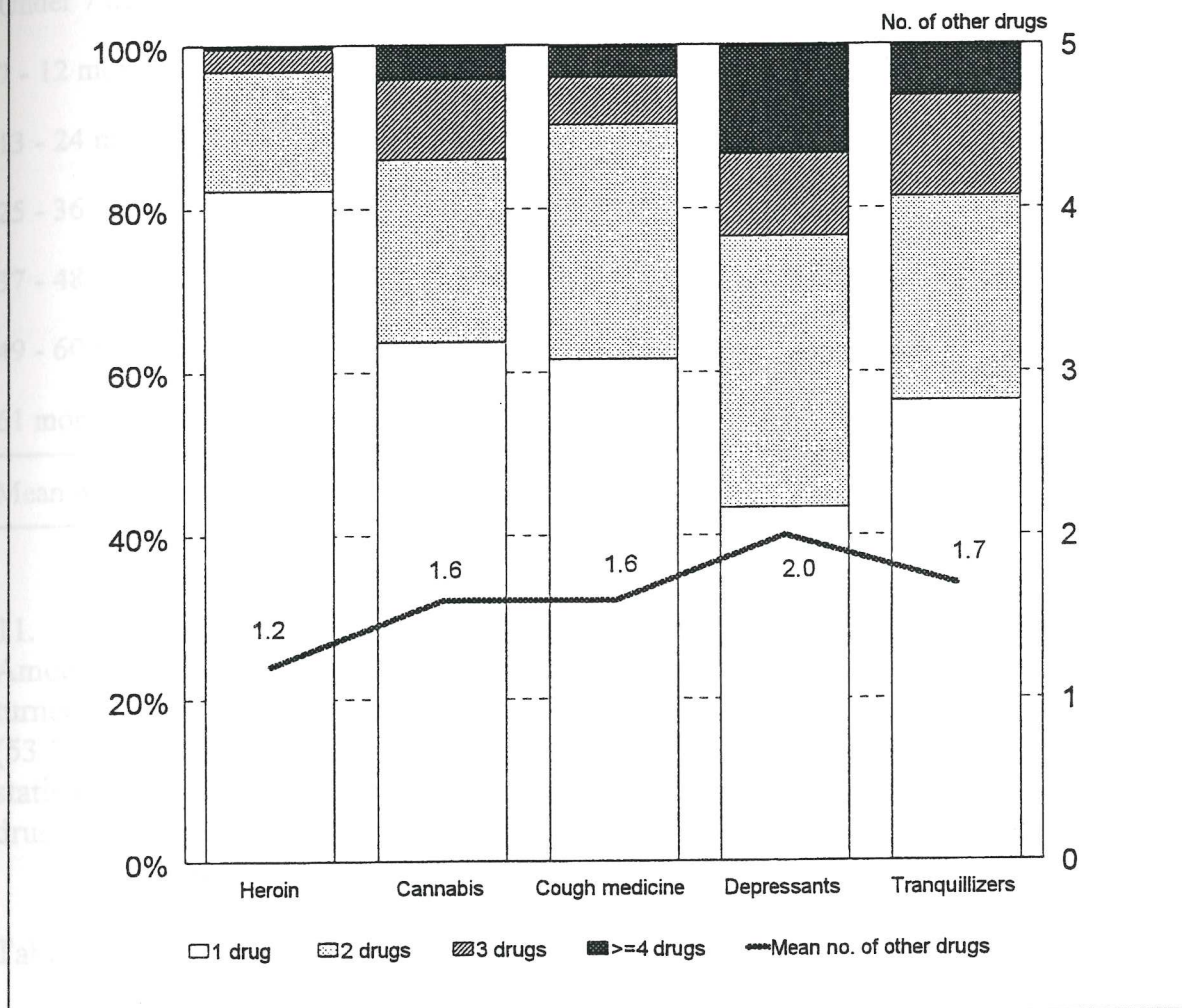
Drug Abuse Pattern in Subsequent Reporting

Table 6 : Number of Other Drugs Subsequently Reported by Initial Drug of Abuse

	(%)				
	Heroin N=258	Cannabis N=143	Cough medicine N=52	Depressants N=30	Tranquillizers N=32
1	82.2	63.6	61.5	43.3	56.3
2	14.7	22.4	28.8	33.3	25.0
3	2.7	9.8	5.8	10.0	12.5
4	0.4	3.5	1.9	10.0	3.1
5	-	-	-	-	3.1
6	-	0.7	1.9	3.3	-
Mean no. of other drugs	1.2	1.6	1.6	2.0	1.7

- Note : (a) Only cases with subsequent reports in other drugs are included in the analysis.
- (b) In counting the number of other drugs subsequently reported, multiple occurrence of the same drug is counted only once.

Chart 3 Number of Other Drugs Subsequently Reported by Initial Drug of Abuse



10. Table 6 and Chart 3 show the number of other drugs reported in subsequent reporting. As shown, all categories of drug abusers have, in the majority, subsequently abused one or two other drugs. In comparison, the persons initially abuse heroin try smaller number of other drugs subsequently than those starting with depressants.

Table 7 : Time lag to First Subsequent Report of Other Drugs by Initial Drug of Abuse

	(%)				
	Heroin N=258	Cannabis N=143	Cough medicine N=52	Depressants N=30	Tranquillizers N=32
Under 7 months	15.9	18.9	28.8	40.0	31.3
7 - 12 months	11.6	14.0	13.5	13.3	31.3
13 - 24 months	17.1	19.6	19.2	16.7	15.6
25 - 36 months	16.3	16.1	3.8	3.3	6.3
37 - 48 months	23.3	14.7	17.3	20.0	3.1
49 - 60 months	11.2	11.9	11.5	6.7	9.4
61 months & over	4.7	4.9	5.8	-	3.1
Mean no. of months	27.9	26.0	23.6	17.3	17.3

11. Table 7 presents the time lag to first subsequent report of other drugs. Among the five categories, persons initially abuse tranquillizers have more than 60% turned to other drugs within one year. This is followed by those start with depressants (53.3%), cough medicine (42.3%), cannabis (32.9%) and heroin (27.5%). The statistics also show that for those initially abuse heroin, about 40% switch to other drugs after three years.

Table 8 : Three Most Common Other Drugs Abused by Initial Drug of Abuse

	Heroin	Cannabis	Cough medicine	Depressants	Tranquillizers
Most common other drug	Physeptone/ methadone	Heroin	Heroin	Heroin	Cough medicine
Second most common other drug	Cannabis	Cough medicine	Cannabis	Cough medicine	Heroin
Third most common other drug	Triazolam	Flunitrazepam	Brotizolam	Cannabis	Cannabis

12. Table 8 shows the three most common other drugs for the five categories. It is noted that heroin is the most common other drug abused by those who start with cannabis, cough medicine and depressants. As for those with heroin and tranquillizers as their initial drug of abuse, the most common other drug is physeptone/methadone and cough medicine respectively.

Table 9 : Commonly Reported First and Last Other Drugs in Subsequent Report by Initial Drug of Abuse

	Heroin N=258	Cannabis N=143	Cough medicine N=52	Depressants N=30	Tranquillizers N=32
First Other Drug	Physeptone/ methadone (26.0)	Heroin (58.0)	Heroin (36.5)	Heroin (26.7)	Heroin (34.4)
	Cannabis (10.8)	Cough medicine (24.5)	Cannabis (32.7)	Cannabis (26.7)	Cough medicine (31.3)
	Triazolam (10.4)	Brotizolam (8.4)	Brotizolam (9.6)	Cough medicine (20.0) Flunitrazepam (20.0)	Cannabis (26.7)
Last Other Drug	Physeptone/ Methadone (25.6)	Heroin (62.9)	Heroin (44.2)	Heroin (40.0)	Heroin (43.8)
	Cannabis (13.2)	Cough medicine (22.4)	Cannabis (28.8)	Cannabis (20.0)	Cough medicine (28.1)
	Triazolam (12.0)		Brotizolam (9.6)	Cough medicine (16.7) Flunitrazepam (16.7)	Cannabis (25.0)

13. Table 9 presents the first and last other drugs commonly reported. It can be observed that the order of popularity for the first other drug is the same as that for the last other drug. Also, heroin is the most popular other drugs that is first switched to by abusers initially taken cannabis, cough medicine, depressants and tranquillizers. Moreover, heroin is the drug that these persons maintain toward the end of the study period.

Table 10 : Whether Subsequently Abuse the Initial Drug Before Taking Other Drugs

	Heroin N=258	Cannabis N=143	Cough medicine N=52	Depressants N=30	Tranquillizers N=32
Yes	83.3	46.9	50.0	26.7	28.1
No	16.7	53.1	50.0	73.3	71.9

Table 11 : Whether Switching Back to Initial Drug at End of Study Period

	Heroin N=258	Cannabis N=143	Cough medicine N=52	Depressants N=30	Tranquillizers N=32
Yes	88.0	26.6	40.4	10.0	28.1
No	12.0	73.4	59.6	90.0	71.9

14. Tables 10 and 11 examine the subjects with subsequent reporting in the initial drug and other drugs. From Table 10, it is noted for those start with heroin, it is more likely that they will continue with the same drug before turning to other drugs. However, for those start with depressants and tranquillizers, they will turn immediately to other drugs after attempting the initial drug of abuse. On the analysis at Table 11, it is noted that over the five years of follow-up, a great majority of those start with heroin are still abusing heroin at the end of the study period. This is followed by cough medicine abusers. But for those start with depressants, cannabis and tranquillizers, over 70% of them are found to abuse other drugs at the end of the study period.

Comparison of Selected Groups

Male and Female

Table 12 : Comparison of Selected Drug Progression Statistics by Sex and Initial Drug of Abuse

	Heroin		Cannabis		Cough Medicine		Depressants		Tranquillizers	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
a) % with subsequent report	64.1	64.4	41.8	24.1	60.5	33.3	46.6	23.1	36.4	39.5
b) Mean number of subsequent reports	6.0	4.2	3.5	2.7	3.2	4.3	4.6	1.8	4.3	3.3
c) Mean time lag to first subsequent report (months)	13.2	12.9	20.8	12.9	17.4	13.7	16.4	5.8	13.4	9.9
d) % abuse other drugs in subsequent report	18.1	25.5	65.0	65.0	65.2	100.0	88.9	66.7	62.5	56.7
e) Mean number of other drugs	1.2	1.4	1.5	1.7	1.5	2.1	1.9	2.3	1.7	1.7
f) % subsequently abuse initial drug before other drugs	82.8	86.5	44.6	69.2	48.9	57.1	29.2	16.7	13.3	41.2
g) % switching back to initial drug at the end of study period	87.3	91.9	24.6	46.2	37.8	57.1	12.5	-	13.3	41.2

15. Table 12 compares male and female in terms of selected statistics. Based on the statistics, some salient observations as follows can be made :

- Females start with cannabis, cough medicine and depressants have a smaller percentage with subsequent report than their male counterparts.
- Except for females initiating with cough medicine, females have a smaller number of subsequent reports than males for the other four selected initial drugs of abuse.
- Females are reported to the CRDA again at a shorter interval than males.

- d) A greater proportion of female abusers taking heroin and cough medicine initially take other drugs subsequently, while for those females start with depressants and tranquillizers, the reverse is observed.
- e) The number of other drugs taken by females is greater than that for males. Also, except those start with depressants, females have a greater proportion to continue with their initial drug of abuse before turning to other drugs, and they also have a greater percentage in switching back to their initial drug of abuse at the end of the study period.

Young (Under 21) and Adults (21 & over)

Table 13 : Comparison of Selected Drug Progression Statistics by Age Group and Initial Drug of Abuse

	Heroin		Cannabis		Cough Medicine		Depressants		Tranquillizers	
	Under 21	21 & over	Under 21	21 & over	Under 21	21 & over	Under 21	21 & over	Under 21	21 & over
a) % with subsequent report	75.1	61.0	45.2	28.8	58.1	44.4	37.9	30.0	36.5	39.7
b) Mean number of subsequent reports	6.2	5.6	3.6	2.7	3.2	4.4	4.0	2.7	4.6	2.9
c) Mean time lag to first subsequent report (months)	12.2	13.5	19.7	21.0	17.0	17.2	12.8	24.0	12.8	10.1
d) % abuse other drugs in subsequent report	24.1	17.8	66.9	60.0	69.1	62.5	84.8	66.7	92.6	25.9
e) Mean number of other drugs	1.3	1.2	1.7	1.3	1.6	1.4	2.0	1.5	1.8	1.4
f) % subsequently abuse initial drug before other drugs	84.3	82.9	53.3	27.8	48.9	60.0	28.6	-	28.0	28.6
g) % switching back to initial drug at the end of study period	90.4	86.9	30.8	13.9	42.6	20.0	7.1	50.0	28.0	28.6

Note : Age is reckoned at the time when the drug abuser was reported to the CRDA for the first time.

16. Table 13 compares young and adult drug abusers in terms of their subsequent reporting pattern. Based on the statistics, the following are observed :

- a) Except for persons start with tranquillizers, the young drug abusers have a greater percentage of being reported subsequently.
- b) Young drug abusers have a greater number of subsequent reports than adult drug abusers, except for those start with cough medicine.
- c) Young drug abusers are more likely to abuse other drugs and try a greater number of other drugs than their adult counterparts.
- d) For young abusers start with heroin, cannabis and depressants, a greater percentage than their adult counterparts continue with their initial drug of abuse before trying other drug. On the other hand, a greater percentage of young abusers starting with heroin, cannabis and cough medicine maintain at their initial drug of abuse at the end of study period than the corresponding adult group.

CONCLUSIONS

17. In summary, from the above analyses, some major conclusions can be drawn :

- a) Persons start with heroin and cough medicine are more likely to be reported again to the CRDA. Moreover for those initiate with heroin they are reported subsequently more frequently.
- b) Persons start with cannabis and cough medicine are noted to have their first subsequent report after a longer time lag than the other categories.
- c) Persons start with heroin will be less likely to turn to other drugs. On the other hand, those taking depressants as their initial drug of abuse will be more likely to turn to other drugs and try different variety of other drugs.
- d) Heroin is noted to be the most popular other drug that persons start with cannabis, cough medicine, depressants and tranquillizers subsequently turn to.
- e) Males and females show different progression pattern. Females are reported to the CRDA again at a shorter interval, and they are involved

in a greater number of other drugs than males. Moreover, females are more likely than males to switch back to their initial drug of abuse.

- f) Young and adult drug abusers show different progression route. Young are more likely to be reported to CRDA subsequently. Moreover, they are noted to be involved in a greater number of other drugs. However, it is found that once they start with heroin or cannabis they are more inclined to their initial drug than their adult counterparts.