

SECTION 5: CAPE TOWN

5a: Specialist Treatment Centres

Ms Pam Cerff

Data were collected from 25 specialist treatment centres on a monthly basis. Some of the data were collected by professional staff and others were collected from patient records by administrative staff.

Table 5.1: Proportion of treatment episodes

	Jul-Dec 2000	Jan-Jun 2001	Jul-Dec 2001	Jan-Jun 2002	Jul-Dec 2002	Jan-Jun 2003	Jul-Dec 2003	Jan-Jun 2004
	%							
Acron	-	-	-	-	-	-	-	<1
Beth Rapha	-	-	-	-	-	2	1	1
Crescent	2	4	4	5	5	6	<1	3
CTDCC	16	20	19	21	18	18	19	14
De Novo	7	7	6	2	6	7	5	7
De Novo Youth	2	3	4	3	4	3	3	5
Durbanville	-	-	<1	1	2	1	-	-
Hesketh King	3	3	2	3	3	2	2	4
Horizon	2	1	2	1	2	2	2	1
Kenilworth	5	4	5	4	3	5	4	4
Kenilworth out-patient	-	-	-	-	-	-	-	1
Lifeskills	4	1	1	1	<1	1	<1	-
Orient	1	2	2	-	1	3	1	1
Ramot	3	10	8	9	10	9	10	9
SANCA (7)	8	17	17	25	20	16	17	16
Stepping Stones	18	11	8	10	8	9	9	9
Stikland	9	3	10	6	11	10	10	8
Toevlug	10	10	11	9	5	8	12	11
Tabankulu	12	4	-	1	1	1	1	<1
Teen Challenge	-	-	-	-	-	-	1	1
Tijger Clinic	-	-	-	-	-	-	3	4
Total no. in treatment	1696	1571	1561	1608	1552	1724	1659	2255

Overall 2255 patients were treated across all treatment centres for the period January to June 2004, as compared to 1659 for the previous six-month period (Table 5.1).

Table 5.2: First time admissions

	Jan-Jun 1999	Jul-Dec 1999	Jan-Jun 2000	Jul-Dec 2000	Jan-Jun 2001	Jul-Dec 2001	Jan-Jun 2002	Jul-Dec 2002	Jan-Jun 2003	Jul-Dec 2003	Jan-Jun 2004
	%										
Yes	68	69	68	68	67	67	67	67	67	70	71
No	32	31	32	32	33	33	33	33	33	30	29

In Table 5.2 ‘Yes’ indicates a first time admission and ‘No’ indicates a repeat admission. The number of new admissions has increased slightly in the last two reporting period. Of those who had received treatment before, 60% had one prior treatment episode, 21% had two and 8% had three prior to treatment episodes.

Table 5.3: Type of treatment received

	Jan-Jun 1999	Jul-Dec 1999	Jan-Jun 2000	Jul-Dec 2000	Jan-Jun 2001	Jul-Dec 2001	Jan-Jun 2002	Jul-Dec 2002	Jan-Jun 2003	Jul-Dec 2003	Jan-Jun 2004
	%										
Inpatient	69	66	66	68	66	65	58	62	67	64	68
Outpatient	27	32	34	32	34	35	42	38	33	36	32
Both	3	2	<1	<1	-	-	<1	<1	-	-	-

Table 5.3 indicates that the proportion of patients receiving treatment has remained fairly stable over the last 8 reporting periods, with about two thirds receiving inpatient treatment.

Table 5.4: Referral sources

	Jan-Jun 2000	Jul-Dec 2000	Jan-Jun 2001	Jul-Dec 2001	Jan-Jun 2002	Jul-Dec 2002	Jan-Jun 2003	Jul-Dec 2003	Jan-Jun 2004
	%								
Self/family/friends	41	36	38	41	39	38	43	47	42
Work/employer	14	15	13	14	15	14	14	13	10
Doctor/psychiatrist/nurse	13	10	13	14	10	8	10	10	11
Religious body	4	4	4	4	3	4	3	3	4
Hospital/clinic	4	3	3	2	4	4	5	3	3
Soc services/welfare	15	15	16	14	12	14	14	16	16
Court/correctional	7	8	7	6	7	6	6	5	7
School	3	7	4	2	4	6	3	3	4
Other e.g. radio	1	2	2	3	4	4	3	2	2
Unknown	-	<1	-	-	<1	1	<1	-	1

Table 5.4 shows that all referral categories have remained fairly stable, with a slight decrease in referrals from employers.

Table 5.5: Population profile

	Jan-Jun 2000	Jul-Dec 2000	Jan-Jun 2001	Jul-Dec 2001	Jan-Jun 2002	Jul-Dec 2002	Jan-Jun 2003	Jul-Dec 2003	Jan-Jun 2004
%									
GENDER									
Male	83	82	80	84	83	80	81	82	80
Female	17	18	20	16	17	20	19	18	20
ETHNIC GROUP									
Asian	1	1	1	3	2	1	3	1	2
Black	7	12	8	11	14	14	10	11	7
Coloured	61	56	53	59	52	52	56	57	59
White	31	32	38	27	32	33	31	31	32
EMPLOYMENT STATUS									
Working full-time	40	39	37	37	39	36	37	36	35
Working part-time	5	4	4	5	5	6	5	7	5
Not working	37	32	36	35	33	34	37	39	39
Apprentice/internship	<1	<1	<1	<1	<1	<1	<1	<1	<1
Student/pupil	10	19	15	18	17	18	15	14	16
Disabled: not working	2	2	2	1	2	2	2	1	2
Housewife	2	2	2	1	2	1	2	1	1
Pensioner/retired	2	2	2	2	2	2	2	1	2
Other	<1	1	1	2	<1	2	2	1	1
MARITAL STATUS									
Married, living with spouse	33	27	25	27	27	25	25	24	23
Married, not living with spouse	5	4	4	4	4	4	5	4	4
Living together	6	5	6	6	7	6	7	6	7
Divorced	11	11	10	9	9	11	10	10	8
Widowed	2	2	2	2	2	2	1	2	2
Never married	44	51	52	51	50	52	52	54	55
Other	<1	<1	<1	<1	<1	1	1	1	2
EDUCATION									
None/pre-primary	<1*	<1	1	2	1	3	2	1	1
Primary	23*	19	22	23	28	25	21	26	16
Secondary	76*	80	64	65	57	58	63	60	69
Tertiary	-*	11	12	11	14	15	14	12	15

*Highest school education completed

As can be seen in Table 5.5, males continue to predominate consistently around 80% of patients. Coloured patients, consistent with local demographics, are in the majority. Those working either full- or part-time total 43%. The category 'Other' includes persons suspended from work pending the successful outcome of treatment. More unmarried persons (72%) are in treatment, consistent with previous data. Most patients have secondary level education or more (74%). About 1 in 6 patients treated during January – June 2004 were students/pupils.

Table 5.6: Age distribution

Age in Years	Jan-Jun 2001		Jul-Dec 2001		Jan-Jun 2002		Jul-Dec 2002		Jan-Jun 2003		Jul-Dec 2003		Jan-Jun 2004	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
10-14	41	3	66	4	40	3	60	4	63	4	48	3	71	3
15-19	222	18	305	20	302	19	303	20	315	18	313	19	500	22
20-24	213	14	184	12	212	13	209	14	233	14	261	16	376	17
25-29	187	12	182	12	160	10	179	12	217	13	187	11	250	11
30-34	196	13	188	12	218	14	187	12	220	13	204	12	256	11
35-39	201	13	207	13	230	14	198	13	210	12	231	14	258	11
40-44	180	12	169	11	178	11	154	10	169	10	155	9	216	10
45-49	116	7	121	8	101	6	106	7	125	7	99	6	130	6
50-54	79	5	69	4	82	5	75	5	89	5	89	5	88	4
55-59	36	2	33	2	48	3	44	3	51	3	31	2	59	3
60-64	20	1	13	1	21	1	19	1	11	<1	14	1	30	1
65-69	5	<1	13	1	6	<1	5	<1	10	<1	7	<1	5	<1
70-74	2	<1	1	<1	3	<1	3	<1	2	<1	1	<1	7	<1
75+	1	<1	1	<1	-	-	2	<1	2	<1	3	<1	4	<1

The age range of patients in treatment was from 11 years to 84 years. Table 5.6 shows that there were more patients in treatment in the under 25-year old age group than any other age group during this reporting period.

Table 5.7: Primary substance of abuse

	Jul-Dec 1999	Jan-Jun 2000	Jul-Dec 2000	Jan-Jun 2001	Jul-Dec 2001	Jan-Jun 2002	Jul-Dec 2002	Jan-Jun 2003	Jul-Dec 2003	Jan-Jun 2004
	%									
Alcohol	50	48	51	46	46	48	47	44	39	38
Dagga/Mandrax	12	23	19	20	25	21	17	20	24	17
Dagga	15	12	13	12	12	13	18	15	15	12
Crack	6	5	5	6	4	3	4	6	6	6
Cocaine	3	3	2	3	2	3	3	2	3	3
Heroin	3	4	5	7	6	7	6	7	7	9
Ecstasy	<1	2	1	1	1	2	1	<1	1	<1
OCM/PRE	2	4	3	3	2	2	2	3	2	2.4
Other (solvents etc.)	<1	<1	<1	2	2	<1	1	1	<1	<1
Speed/crystal meth	-	-	-	-	-	-	-	2	2	11

Table 5.7 indicates that although alcohol remains the most commonly abused substance, it was reported as the primary substance of abuse by 36% of patients in the first half of 2004, the lowest proportion recorded thus far. Proportions for other drugs have remained fairly stable, although the proportion of heroin patients increased.

Table 5.8: Overall proportion of substances used

	Jan-Jun 2000	Jul-Dec 2000	Jan-Jun 2001	Jul-Dec 2001	Jan-Jun 2002	Jul-Dec 2002	Jan-Jun 2003	Jul-Dec 2003	Jan-Jun 2004
	%								
Alcohol	64	66	62	62	59	61	60	55	53
Dagga/Mandrax	36	28	30	35	27	28	34	37	30
Dagga	28	23	23	24	24	32	29	31	27
Crack/cocaine	17	15	20	15	14	11	18	22	22
OCM/PRE	11	9	12	9	5	6	8	6	8
Ecstasy	5	7	9	9	8	9	10	11	10
Heroin	5	6	8	7	8	8	8	9	11
Methamphetamine	-	-	-	-	-	-	5	7	19

The overall proportion of the primary, secondary and/or tertiary drug of abuse is shown in Table 5.8. Alcohol, dagga in combination with Mandrax, and dagga on its own, are the most common drugs used. Ecstasy and cocaine also seem to be used more commonly as secondary drugs of abuse than as primary drugs, with as many as 22% of patients reporting the use of cocaine. Use of Methamphetamine is also high.

Table 5.9: Mode of usage of primary drug

	Jan-Jun 2000	Jul-Dec 2000	Jan-Jun 2001	Jul-Dec 2001	Jan-Jun 2002	Jul-Dec 2002	Jan-Jun 2003	Jul-Dec 2003	Jan-Jun 2004
	%								
Swallowed	53(10)	55 (8)	55 (8)	50 (8)	52 (7)	51 (8)	47 (6)	43 (6)	41 (6)
Snorted	2 (3)	2 (5)	2 (5)	3 (5)	3 (7)	4 (7)	3 (6)	4 (6)	4 (6)
Injected	2 (3)	2 (4)	2 (4)	2 (3)	2 (4)	2 (4)	3 (5)	3 (5)	3 (5)
Smoked	42 (81)	39 (81)	39 (80)	44 (80)	41 (79)	42 (80)	46 (81)	50 (82)	51 (83)
Other/Combination	2 (3)	2 (3)	2 (3)	2 (4)	2 (3)	1 (2)	2 (3)	1 (2)	1 (1)

Figures in brackets exclude alcohol
Heroin injecting: 28.2%

In looking at the mode of usage of the primary drug, 41% of patients reported swallowing their substances. When alcohol is excluded about 80% report smoking as their mode of use. This falls in line with the prevalent smoking culture of South Africa. If alcohol is excluded, 5% of patients reported that they injected drugs. (Table 5.9)

Table 5.10: Mean age by primary substance

	Jul-Dec 1999	Jan-Jun 2000	Jul-Dec 2000	Jan-Jun 2001	Jul-Dec 2001	Jan-Jun 2002	Jul-Dec 2002	Jan-Jun 2003	Jul-Dec 2003	Jan-Jun 2004
Alcohol	40	41	39	39	39	40	39	40	40	40
Dagga/Mandrax	25	26	24	25	26	26	25	25	26	25
Dagga	23	22	19	19	19	19	21	20	21	20
Crack	30	29	28	29	31	30	30	29	30	30
Cocaine	29	28	29	28	28	30	31	30	29	29
Heroin	23	21	23	23	23	24	23	24	24	24
Ecstasy	23	24	19	19	22	22	21	21	22	23
OCM/PRE	-	-	-	39	36	41	38	41	39	43
Methamphetamine	-	-	-	-	-	-	-	-	-	20
Overall mean age	33	33	32	31	31	31	31	31	31	30

The mean age was 30 years for this period. The data continue to show that patients whose primary substance of abuse is alcohol are older, 40 years of age, than those with other primary substances of abuse (see Table 5.10). The mean age for patients with dagga, Ecstasy and methamphetamine as primary substance of abuse remains low.

Table 5.11: Gender, by primary substance of abuse

	Jul-Dec 2000		Jan-Jun 2001		Jul-Dec 2001		Jan-Jun 2002		Jul-Dec 2002		Jan-Jun 2003		Jul-Dec 2003		Jan-Jun 2004	
	%		%		%		%		%		%		%		%	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Alcohol	80	20	78	22	79	21	79	21	79	21	77	23	77	23	77	23
Dagga/Mandrax	94	6	93	7	97	3	95	5	92	8	93	7	95	5	95	5
Dagga	89	11	84	16	89	11	91	9	87	13	87	13	88	12	87	13
Crack	81	19	79	21	83	17	84	16	82	18	84	16	82	18	81	19
Cocaine	79	21	67	33	74	26	74	26	56	44	76	24	78	22	76	24
Heroin	66	34	73	27	77	23	72	28	70	30	77	23	66	34	72	28
Ecstasy	76	24	60	40	78	22	72	28	59	41	46	54	74	26	64	36
OCM/PRE	-	-	41	59	55	45	32	68	39	61	39	61	42	58	43	57
Methamphetamine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	73	27

Dagga and the dagga/Mandrax combination remain mainly male substances of abuse as indicated in Table 5.11. Proportionately more females are treated for the use of cocaine, heroin, methamphetamine and Ecstasy than for other drugs. In the first half of 2004 almost 60% of patients treated for abuse of over the counter and prescription medicines were females.

Table 5.12: Race by primary substance of abuse

	African			Coloured			Asian			White		
	%			%			%			%		
	Jan-Jun 2003	Jul-Dec 2003	Jan-Jun 2004	Jan-Jun 2003	Jul-Dec 2003	Jan-Jun 2004	Jan-Jun 2003	Jul-Dec 2003	Jan-Jun 2004	Jan-Jun 2003	Jul-Dec 2003	Jan-Jun 2004
Alcohol	11	11	8	51	50	49	1	1	1	37	39	42
Dagga/ Mandrax	16	12	12	73	77	81	4	3	1	6	8	6
Dagga	13	19	12	68	66	69	1	1	1	18	15	18
Crack/ Cocaine	2	7	4	37	46	43	12	3	4	49	45	49
Ecstasy (n=17)	8	0	0	54	78	73	0	0	9	39	22	18
Heroin	0	1	2	32	32	43	6	2	6	62	66	50
Methamphetamine	-	-	<1	-	-	81	-	-	3	-	-	15

The percentages shown in Table 5.12 total across the rows. The percentage of Asians in treatment remains small. The proportion of Whites in treatment for heroin is still greater than that of any of the other groups but, the percentage of Coloured heroin patients has increased significantly over time.

Table 5.13: Multiple substance use

	Jul-Dec 2001		Jan-Jun 2002		Jul-Dec 2002		Jan-Jun 2003		Jul-Dec 2003		Jan-Jun 2004	
	n	%	n	%	n	%	n	%	n	%	n	%
Primary substance only	936	60	1102	69	942	61	914	53	854	52	1151	51
Primary +2 nd substance	334	21	280	17	323	21	433	25	416	25	555	25
Primary+2 nd +3 rd substance	177	11	140	9	168	11	204	12	213	13	319	14
Primary +2 nd 3 rd +4 th substance	114	7	86	5	119	8	170	10	176	11	230	10
Total no. of patients	1561	100	1608	100	1552	100	1721	100	1659	100	2255	100

Table 5.13 shows that almost 50% of patients report using more than one primary substance of abuse, an increase over previous periods.

Table 5.14: ‘Top ten’ suburbs for alcohol treatment in the Cape Metropole

Suburb	No in treatment
Mitchell’s Plain	30
Kraaifontein	23
Bellville	22
Atlantis	22
Kuils River	18
Eersterivier	10
Durbanville	17
Brackenfell	16
Khayelitsha	15
Goodwood	13

The suburbs in the table above were the ‘top 10’ suburbs with alcohol patients stating them as their suburb of residence. Outside the Cape Metro, Paarl had 27 patients, Worcester had 22 and George had 14 patients in treatment.

Table 5.15: ‘Top ten’ suburbs for drug treatment in the Cape Metropole

Suburb	No in treatment
Mitchell’s Plain	110
Atlantis	46
Athlone	43
Gugulethu	34
Khayelitsha	33
Retreat	30
Manenberg	30
Wynberg	24
Bonteheuwel	22
Kuils River	22
Bellville	22

The highest numbers of patients treated for drugs other than alcohol came from Mitchells Plain, Atlantis and Athlone. Outside the Cape Metro, Paarl had 25 patients in treatment.

Table 5.16: Source of payment

	Jan-Jun 2000	Jul-Dec 2000	Jan-Jun 2001	Jul-Dec 2001	Jan-Jun 2002	Jul-Dec 2002	Jan-Jun 2003	Jul-Dec 2003	Jan-Jun 2004
	%								
Self only	13	12	16	13	15	15	14	16	16
Medical Aid only	13	15	13	14	16	11	17	16	17
State	14	15	15	14	11	14	16	13	16
Family/friends only	25	26	27	28	26	30	28	34	29
State & self	9	8	6	8	6	7	7	8	6
Work/employer only	4	4	4	4	4	4	4	4	4
Unknown	2	3	2	2	3	2	2	1	1
Other/combinations	15	17	17	17	19	17	12	8	11

Patients often reported a combination of sources of funding for treatment. The category ‘Family and friends’ remains the most common source of payment for treatment (Table 5.16).

Table 5.17: Frequency of use by primary drug

	Frequency of use in past month			
	Not used in past month	Once per week or less often	2-6 days per week	Daily
	%	%	%	%
Alcohol	4	8	22	65
Dagga	13	10	16	61
Mandrax	7	4	17	72
Cocaine	3	7	33	57
Crack	5	6	19	70
Heroin	4	2	8	86
Methamphetamine	9	15	35	41
OTC/PRE	4	2	8	86

Cape Town – Patients younger than 20 years

Table 5.18: Gender and race profile of patients <20 years

	Jan-Jun 2001	Jul-Dec 2001	Jan-Jun 2002	Jul-Dec 2002	Jan-Jun 2003	Jul-Dec 2003	Jan-Jun 2004
	%	%	%	%	%	%	%
<i>GENDER</i>							
Male	79	86	85	84	84	83	79
Female	21	14	15	16	16	17	21
<i>ETHNIC GROUP</i>							
African	14	30	23	27	15	19	11
Coloured	56	51	57	58	70	68	73
Asian	2	2	3	1	2	1	2
White	28	16	17	15	12	13	14

Table 5.18 above shows that Coloured patients constituted 73% of the patients younger than 20 years during the first half of 2004.

Table 5.19: Primary substance of abuse of patients <20 years

	Jan-Jun 2002		Jul-Dec 2002		Jan-Jun 2003		Jul-Dec 2003		Jan-Jun 2004	
	n	%	n	%	n	%	n	%	n	%
Alcohol	19	6	28	8	27	7	15	4	29	5
Cannabis	159	46	174	49	172	46	152	42	189	33
Cannabis/Mandrax	111	32	110	31	115	30	118	33	133	23
Cocaine	5	1	2	<1	4	1	6	2	8	1
Crack	6	2	6	2	7	2	11	3	13	2
Heroin	20	6	22	6	18	5	27	7	47	8
Ecstasy	13	4	9	3	7	2	13	4	5	<1
OTC/PRE	2	<1	2	<1	2	<1	1	<1	-	-
Inhalants	7	2	2	<1	2	<1	2	1	2	<1
Other	-	-	4	1	7	2	1	<1	3	<1
Speed/Meth					15	4	17	5	142	25
Total	342	100	359	100	375	100	363	100	571	100

Most young patients are treated for the abuse of cannabis, methamphetamine or cannabis/Mandrax.

Table 5.20: Primary substance by gender (<20s)

	Jul-Dec 2001		Jan-Jun 2002		Jul-Dec 2002		Jan-Jun 2003		Jul-Dec 2003		Jan-Jun 2004	
	M	F	M	F	M	F	M	F	M	F	M	F
	%		%		%		%		%		%	
Alcohol	81	19	74	26	75	25	59	41	73	27	48	52
Cannabis	87	13	91	9	90	10	85	15	84	16	88	12
Cannabis/Mandrax	95	5	89	11	89	11	94	6	92	8	96	4
Cocaine	33	67	80	20	0	100*	33*	67	33	67	50	50
Crack	83	17	100	0	50	50	100	0	73	27	62	38
Heroin	64	36	35	65	50	50	78	22	70	30	72	28
Ecstasy	71	29	69	31	56	44	43	57	77	23	40	60
OTC/PRE	100	0	50	50	100*	0	0	100*	100*	0	-	-
Inhalants	100	0	86	14	100*	0	100*	0	100*	0	100	0
Methamphetamine	-	-	-	-	-	-	-	-	-	-	63	37

* (n<5)

Most young patients treated for cannabis or cannabis/Mandrax abuse are male, whereas a higher proportion of methamphetamine and heroin patients are female (30%).

5b: Methamphetamine use in Cape Town

Prof Charles Parry

Refer to Section 2f on page 29.

5c: The nature and extent of heroin use in Cape Town

Mr Andreas Plüddemann

Research conducted by the Medical Research Council (Alcohol & Drug Abuse Research Group) and the University of Cape Town (Department of Psychiatry) investigated the extent of heroin use in Cape Town and the associated drug use patterns and consequences. The study, funded by the United Nations Office on Drugs & Crime, was conducted in the Cape Metropole in July and August 2004. A total of 250 heroin users were interviewed over a six-week period in over 25 suburbs across the city including Claremont, Durbanville, Fish Hoek, Mitchells Plain, Observatory, Somerset West, Woodstock, and Wynberg. Snowball sampling was used.

The majority of those interviewed were male (80%), white (55%), aged 21-25 years (53%) with at least a Grade 10 level of education (84%). Although the majority of the heroin users reported “smoking” or snorting their heroin, 25% reported injecting heroin. Three-quarters of the injectors reported having shared a needle at least once. Over two-thirds of the participants used heroin every day. A third of the participants had experienced a heroin overdose at least once and almost half knew of someone who had a fatal overdose. Almost 10% had attempted suicide in the past 12 months.

Those participants who reported injecting in the past 3 days were significantly more likely to have been treated for substance abuse, to feel they might need treatment for heroin (again), to have had a heroin overdose, and to have tried to commit suicide in the past 12 months.

Although 85% of those interviewed were classified as “dependent” on heroin, only five had been to any one of 25 recognised rehabilitation centres in the 12 months preceding the interview. Using this fact and a statistical technique known as the multiplier method, researchers estimated the *adult* heroin using population in Cape Town to be approximately 15 000. It is estimated that there may be at least a further 1000 *adolescent* heroin users (aged 12-17).

Although no biological samples were collected from participants and a number declined to answer questions related to HIV/AIDS, eight participants reported that they were HIV positive.

In terms of economics, on average the participants had spent R342 on heroin in the past 7 days. Overall participants spent an average of R548 on drugs in the past 7 days (including alcohol and cigarettes) and overall the 250 participants spent almost R135 000 on drugs in the past 7 days. This would translate to over seven million Rand in one year for these drug users alone.

It is clear that heroin use has become a major concern in Cape Town and may still be increasing. The drug is being used in many suburbs of the city and is no longer confined to White youth but is increasingly used by Coloureds and, though still less commonly, Blacks. The lack of state funded rehabilitation services must be addressed urgently and post treatment support networks and follow-up systems also need to be encouraged and supported.

To view the full report of this study go to:

<http://www.sahealthinfo.org/admodule/reportheroinphase2.pdf>

5d: Murder docket analysis - Western Cape

Capt Herman Janse van Rensburg

All available murder dockets for the Western Cape in 2001 were analysed by the Crime Information Analysis Centre (CIAC). The information was presented in the light of the high association between murder and the use of alcohol.

Table 5.21: Month of occurrence

MONTH	Total	%
January	22	7.8
February	22	7.8
March	24	8.5
April	19	6.7
May	18	6.4
June	14	5
July	19	6.7
August	23	8.2
September	26	9.2
October	33	11.7
November	31	11
December	31	11
	282	100

Table 5.22: Day of the week when murder was committed

DAY	Total	%	% of Known
Monday	17	6.0	6.1
Tuesday	14	5.0	5.0
Wednesday	17	6.0	6.1
Thursday	15	5.3	5.4
Friday	40	14.2	14.4
Saturday	117	41.5	42.1
Sunday	58	20.6	20.9
Unknown	4	1.4	
TOTAL	282	100	100

Table 5.23: Time of the day the murder was committed

TIME	Total	%	% of Known
00:00 – 02:59	47	16.7	17.3
03:00 – 05:59	17	6	6.3
06:00 – 08:59	29	10.3	10.7
09:00 – 11:59	28	9.9	10.3
12:00 – 14:59	15	5.3	5.5
15:00 – 17:59	27	9.6	9.9
18:00 – 20:59	50	17.7	18.4
21:00 – 23:59	59	20.9	21.7
Unknown	10	3.5	
TOTAL	282	100	100

Table 5.24: Vicinity where murder was committed

VICINITY	Total	%
Suburb	95	33.7
Township	93	33.0
Farm/Smallholding/Estate	39	18.8
Informal Settlement	38	13.5
Isolated Uninhabited area	9	3.2
Inner City	8	2.8
TOTAL	282	100

Table 5.25: Place where murder was committed

PLACE	Total	%
Street	96	34.0
Victim's residence	75	26.6
Open space	35	12.4
Residence known to victim	28	9.9
Bar/pub/shebeen	12	4.3
Offender's residence	6	2.1
Sportsgrounds	3	1.1
In car	3	1.1
Educational premises	2	0.7
Empty residence	2	0.7
Railway station	2	0.7
Spaza shop	1	0.4
Community centre	1	0.4

Table 5.26: Possible motive for murder

MOTIVE	Total	%	% of Known
Misunderstanding/argument	150	53.2	80.6
During the commission of another crime	9	3.2	4.8
Gang-related	9	3.2	4.8
Self defense	3	1.1	1.6
Jealousy/love triangle	3	1.1	1.6
Accidental	3	1.1	1.6
Depression by offender	2	0.7	1.1
Taxi violence	2	0.7	1.1
Vigilante	1	0.4	0.5
Punishment	1	0.4	0.5
In line of duty	1	0.4	0.5
Road rage	1	0.4	0.5
Revenge	1	0.4	0.5
Unknown (unidentified body)	8	2.8	
Unknown (identified body)	88	31.2	
TOTAL	282	100	100

Table 5.27: Methods used to commit murder

METHOD	Total	% of all Cases
Stab	172	61.0
Shoot	53	18.8
Hit	48	17.0
Kick	6	2.1
Strangle	3	1.1
Poisoned	2	0.7
Burn with hot object	1	0.4
Bang head	1	0.4
Push	1	0.4
Suffocate	1	0.4
Shake	1	0.4
Set alight	1	0.4
Cut	1	0.4
Knock	1	0.4

Table 5.28: Instruments used to commit murder

INSTRUMENT	Total	% of all Cases
Knife	118	41.8
Firearm	53	18.8
Sharp object	46	16.3
Blunt object	23	8.2
Bottle	10	3.5
Brick/stone	10	3.5
Foot	7	2.5
Stick/plank	7	2.5
Fist	6	2.1
Hands	5	1.8
Axe	2	0.7
Fire	1	0.4
Glass shard	1	0.4
Water/liquid	1	0.4
Sport instrument	1	0.4
Unknown	4	1.4

Table 5.29: Race of Victims

RACE	Total	%
Coloured	187	65.4
African	95	33.2
White	4	1.4
TOTAL	286	100

Table 5.30: Age of victims

AGE	Total	%	% of Known
Younger than a year	1	0.3	0.4
1 – 9 years	2	0.7	0.7
10 – 19 years	29	10.1	10.7
20 – 29 years	99	34.6	36.7
30 – 39 years	82	28.7	30.4
40 – 49 years	39	13.6	14.4
50 – 59 years	11	3.8	4.1
60 – 69 years	6	2.1	2.2
70 – 79 years	1	0.3	0.4
Unknown	16	5.6	
TOTAL	286	100	100

Table 5.31: Race of Offenders

RACE	Total	%
Coloured	170	71.4
African	64	26.9
White	4	1.7
TOTAL	238	100

Table 5.32: Age of Offenders

AGE	Total	%	% of Known
10 – 19 years	43	18.1	20.5
20 – 29 years	94	39.5	44.8
30 – 39 years	46	19.3	21.9
40 – 49 years	21	8.8	10.0
50 – 59 years	5	2.1	2.4
60 – 69 years	1	0.4	0.5
Unknown	28	11.8	
TOTAL	238	100	100

Table 5.33: Relationship between victim and offender

RELATIONSHIP	No	%	% of Known
Acquaintance	95	39.9	44.6
Stranger/bystander	50	21.0	23.5
Boyfriend/girlfriend	14	5.9	6.6
Known by sight	12	5.0	5.6
Colleague	11	4.6	5.2
Family member	9	3.8	4.2
Spouse	8	3.4	3.8
Common-law spouse	6	2.5	2.8
Friend	5	2.1	2.3
Parent/guardian	2	0.8	0.9
Neighbour	1	0.4	0.5
Unknown	25	10.5	
TOTAL	238	100	100

Table 5.34: Marital status of offenders

MARITAL STATUS	No	%	% of Known
Single	173	72.7	80.8
Married	30	12.6	14.0
Widow/er	6	2.5	2.8
Common-law marriage	4	1.7	1.9
Divorced	1	0.4	0.5
Unknown	24	10.1	
TOTAL	238	100	100

Table 5.35: Occupational status of offenders

OCCUPATION	Total	%	% of Known
Unemployed	105	44.1	49.5
Employed	104	43.7	49.1
Student/pupil	3	1.3	1.4
Unknown	26	10.9	
TOTAL	238	100	100

Table 5.36: Educational status of offenders

EDUCATIONAL LEVEL	Total	%	% of Known
Grade 1 – 7	82	34.5	44.3
Grade 8 – 11	65	27.3	35.1
Grade 12	10	4.2	5.4
Tertiary Education	1	0.4	0.5
No formal education	24	10.1	13.0
Illiterate	3	1.3	1.6
Unknown	53	22.3	
TOTAL	238	100	100

Table 5.37: Disposal of dockets

DISPOSAL	Total	%
Undetected	109	38.7
Guilty	97	34.4
Withdrawn in court	44	15.6
Not guilty	31	11.0
Unknown	1	0.4
TOTAL	282	100

Analysis also showed that 52% of murder victims and 33% of offenders had consumed alcohol prior to the murder.

5e: Alcohol-related mortality in Cape Town: 2003

Mr Hilton Donson

Rationale for the National Injury and Mortality Surveillance System (NIMSS)

- Prevention agencies have no access to information on demographic, seasonal and socio-economic causes of injury, disability, psychosocial trauma and death.
- NIMSS produces and disseminates descriptive epidemiological information for deaths due to non-natural causes.

Coverage

All cause mortality:

more than half a million deaths

Non-natural mortality

65 000 to 80 000 (MRC Burden of Disease (BoD) 2000; Department of Health (DoH) 1999)
12% to 15% of all mortality

NIMSS 2003

25000

31% to 38% of all non-natural deaths

Table 5.38: Manner of Death in 2003 (Cape Town)

Manner of Death	No	%
Homicide	2166	55.2
Suicide	322	8.2
Transport	996	25.4
Other	442	11.3
TOTAL	3926	100

The leading cause of non-natural death in Cape Town was violence (55.2%) followed by transport (25.4%).

Table 5.39: Blood alcohol levels of Cases

BAC	No	%
0g/100ml	1285	49.7
0.01 - 0.04	44	1.7
0.05 - 0.14	416	16.1
0.15 - 0.24	631	24.4
≥0.25	212	8.2
TOTAL	2588	100

Blood alcohol concentration (BAC) was obtained in 2588 of the 3926 cases. The average BAC for those who tested positive was 0.17 ± 0.07 g/100ml.

Nearly 30% of pedestrians had alcohol levels of more than 0.24g/100ml, rendering them staggeringly drunk to stuporose, and 27.6% levels of 0.15g/100ml to 0.24g/100ml. Of drivers 33.9% had levels above 0.15g/100ml rendering them drunk to very drunk. 32.8% of suicides had alcohol levels of more than 0.05g/100ml. In 38% of firearm-related homicides alcohol concentrations were higher than the legal limit for driving, of which 23.8% were drunk to very drunk.

Table 5.40: Blood alcohol levels by apparent manner of death

Apparent manner	No	BAC's done		BAC pos		BAC ≥ 0.05		Mean BAC
		n	(%)	n	(%)	n	(%)	
Homicide	2166	1567	72.3	824	52.6	795	50.7	0.17
Suicide	322	242	75.2	61	25.2	56	23.1	0.17
Transport	996	577	57.9	313	54.2	305	52.9	0.19
Other unintentional	442	202	45.7	105	52.0	103	51.0	0.18
Total	3926	2588	65.9	1303	50.3	1259	48.6	0.17

More fatalities tested alcohol positive among the transport (54.2%) and violence-related deaths (52.6%). Among the positive cases the transport had the highest mean blood alcohol concentrations.

Table 5.41: Sex by BAC in g/100ml

	Male		Female	
	n	%	n	%
Zero	1088	48	193	59
0.01 – 0.04	38	2	6	2
0.05 – 0.14	381	17	34	10
0.15 – 0.24	561	25	69	21
≥0.25	185	8	26	8
Total	2253	100	328	100

Table 5.42: Homicide by BAC (1999-2003)

BAC	1999		2000		2001		2002		2003	
	n	%	n	%	n	%	n	%	n	%
Zero	612	36	601	35	675	40	829	42	743	47
0.01 – 0.04	57	3	86	5	55	3	40	2	29	2
0.05 – 0.14	310	18	332	19	316	19	342	17	288	18
0.15 – 0.24	498	29	480	28	432	26	521	26	395	25
≥0.25	247	14	225	13	201	12	255	13	112	7
TOTAL	1724	100	1724	100	1679	100	1987	100	1567	100

Table 5.43: Blood alcohol levels by external cause of violent death

External cause	No	BAC's done		BAC positive		BAC \geq 0.05		Mean BAC
		n	%	n	%	n	%	
Firearm	933	689	74	259	38	243	35	0.15
Sharp	871	676	78	480	71	470	70	0.18
Blunt	319	172	54	73	42	70	41	0.16
Strangulation	33	26	79	9	35	9	35	0.22
TOTAL	2166	1567	72	824	53	795	51	0.17

Table 5.44: Transport by BAC, 1999-2003

	1999		2000		2001		2002		2003	
	n	%	n	%	n	%	n	%	n	%
Zero	295	41	272	40	286	42	300	43	264	46
0.01 – 0.04	24	3	23	3	13	2	9	1	8	1
0.05 – 0.14	80	11	74	11	79	12	81	12	78	14
0.15 – 0.24	201	28	173	26	136	20	165	24	157	27
\geq 0.25	146	20	134	20	159	24	142	20	70	12
TOTAL	716	100	676	100	673	100	697	100	577	100

Further analysis of the transport group by user category shows that positive blood alcohol concentration was greatest among motor vehicle pedestrian fatalities, followed by motor vehicle driver fatalities. (Table 5.44).

Table 5.45: Blood alcohol levels by external cause of transport deaths

External cause	No	BAC's done		BAC positive		BAC \geq 0.05		Mean BAC
		n	%	n	%	n	%	
Pedestrians	522	276	52.9	170	61.6	164	59.4	0.21
Railway	131	93	71.0	26	28.0	25	26.9	0.18
Drivers	116	84	72.4	53	63.1	53	63.1	0.17
Passengers	119	63	52.9	29	46.0	29	46.0	0.15
MV unspecified	68	40	58.8	29	72.5	25	62.5	0.19
Total	996	577	57.9	313	54.2	305	52.9	0.19

More drivers (63.1%) tested positive for alcohol in the blood than the other transport deaths. A large percentage of pedestrians (61.6%) also tested alcohol positive and this group had the highest mean blood alcohol concentration (0.21 g/100ml). (Table 5.45).

Table 5.46: Drivers by BAC, 1999-2003

BAC	1999		2000		2001		2002		2003	
	n	%	n	%	n	%	n	%	n	%
Zero	47	43	41	47	30	42	39	40	31	37
0.01 – 0.04	7	6	4	5	3	4	-	-	-	-
0.05 – 0.14	17	15	16	18	14	19	12	12	21	25
0.15 – 0.24	28	25	21	24	13	18	24	25	27	32
≥0.25	11	10	6	7	12	17	13	13	5	6
TOTAL	110	100	88	100	72	100	98	100	84	100

Table 5.47: Pedestrians by BAC 1999-2003

	1999		2000		2001		2002		2003	
	n	%	n	%	n	%	n	%	n	%
Zero	110	28	99	28	108	31	118	35	106	38
0.01 – 0.04	7	2	12	3	7	2	4	1	6	2
0.05 – 0.14	34	9	25	7	43	12	37	11	25	9
0.15 – 0.24	128	32	109	31	81	23	90	26	89	32
≥0.25	116	29	109	31	112	32	93	27	50	18
TOTAL	395	100	354	100	351	100	342	100	276	100

Conclusion

- less tested for BAC in 2003
- transport followed homicide by highest BAC
- transport - MVA unspecified highest followed by pedestrians and drivers BAC lower for suicide & other unintentional injuries in 2003 than in 2001
- increase in BAC among drivers
- Decrease in BAC among pedestrians

5f: Drug related deaths

Dr Denise Lourens

Problems encountered in Forensic practice

- History
- Autopsy – non specific findings
- Cause of Death (COD) – undetermined by autopsy alone
- Laboratory results
- Docket
- Inquest
- No data capturing system

Waiting periods

Averages

- PM interval = 2,69 days (n=993)
- PM interval routine cases = 3 days (n=3316)
- No significant difference (p=0,57)
- Alcohol return date = 22,8 days (n=441) (SD=22,7) (Range 1-300 days)
- Toxicology return = 7,69 months (n=500) (SD=6,1) (Range 0.25-43 months)
- Toxicology outstanding = 23,97 months (n=64) (SD=12,75) (Range=10-56 months)
- Dockets finished = 30,54 months (n=274) (SD=20,6) (Range 4-68 months)
- Dockets outstanding = 31,13 months (n=181) (SD=20,7) (Range 9-79 months)

Table 5.48: Proportion tested per year

Year	Total – autopsies	No of toxicology cases	Proportion
1994	3630	48	0.013
1995	4092	103	0.025
1996	3959	103	0.026
1997	3814	107	0.028
1998	3759	108	0.029
1999	3167	101	0.032
2000	3124	110	0.035
2001	3325	120	0.036
2002	3255	113	0.035
2003	2971	97	0.033

Table 5.49: Proportion tested per gender and race (1995-2003)

	Black		Coloured		White		Total
	M	F	M	F	M	F	
Autopsies	12 696	3 224	9 455	3 135	2 128	779	31 417
Toxicology	143	98	210	140	227	132	950
Proportion	0.01	0.03	0.02	0.04	0.11	0.17	-

Who do we screen?

Suicide overdose pills, poison, drug overdose, accidental overdose, unknown cause of death, requests by South African Police Service, death in custody and at the discretion of the pathologist.

Table 5.50: Type of Screenings

	%
Routine specimens	
Stomach	53
Liver and kidney	55
Blood	89
Urine	39
Other specimens	
Bile	15
Eye fluid	5
Other	-

Table 5.51: Positive cases

	Tested	Positive	OD likely	% of tested OD likely
Suicide OD	347	221	154	44
Suicide other	108	39	8	7,4
Natural	157	51	22	14
Unknown	125	44	17	13,6
Murder	99	31	2	2
Accidental – drugs/poison	100	52	27	27
Accidental - other	48	9	1	2
Total	1030	458	232	22,5

Other investigations

- Alcohol 77% (n=1013)
- Histology 46 % (n=644)

Table 5.52: Traces of Cannabis

Positive cases	458
Times reported	41
<i>All non lethal values</i>	
Dagga as single drug	19
Dagga + 1 other	9
Methaqualone + Cannabis	6
Dagga + 2 other	11
Methaqualone, Diphenhydramine and Cannabis	6
Dagga + 3 other	2
Same combination + 1 extra	

Table 5.53: Cannabis

COD	Cases	
Murder	17/99	.17
Suicide	9/453	.02
Accident	6/148	.04
Unknown	5/125	.04
Natural	4/157	.03

- Significant difference between murder and suicide proportions p=0,000

Table 5.54 Cannabis and alcohol

Alcohol level	n
0,00-0,05	30
0,06-0,10	3
0,11-0,15	3
0,16-0,20	2
0,21-0,25	0
>0,25	2
Unknown	1

Table 5.55: Cannabis - Gender and race

Gender and race	Cases	
Coloured male	20/210	.095
White male	10/227	.044
Black male	8/143	.056
White female	2/132	.015
Coloured female	1/140	.007

- No significant difference between coloured and black men $p=0,1837$
- Coloured men and white men $p=0,0232$

Table 5.56: Cannabis - Ages

Ages	Cases	
10-19	8/88	(.09)
20-29	17/242	(.07)
30-39	10/244	(.04)
40-49	6/194	(.03)

- No significant differences in age groups except for 10-19 and 40-49 ($p=0,031$)

Table 5.57: Methaqualone

Positive cases	458
Times reported	68
Lethal levels reported	9
Methaqualone as a single drug	38
Methaqualone and one other	16
Cannabis 6, Cocaine 2, Diphenhydramine 2	
Methaqualone and 2 other	11
Cannabis and Diphenhydramine = 6/ Cocaine =2	
Methaqualone and 3 other	3
Diphenhydramine and cannabis =2/ Cocaine=1, heroin =1	

Table 5.58: Methaqualone

COD	Cases	
Suicide	20/453	(.04)
Accident	19/148	(.13)
Murder	9/99	(.09)
Unknown	8/125	(.06)
Nat	11/157	(.07)
MVA	1/15	(.07)

- Accident and suicide p=0,0001
- Proportion murder to suicide p=0,0372

Table 5.59: Methaqualone and alcohol

Alcohol level	n
0,00-0,05	50
0,06-0,10	2
0,11-0,15	1
0,16-0,20	2
0,21-0,25	3
>0,25	4
Unknown	4
Not done	2

Table 5.60: Methaqualone - Ages

Ages	Cases	
10-19	7/88	(.08)
20-29	18/242	(.07)
30-39	20/244	(.08)
40-49	19/194	(.1)
50-59	3/100	(.03)

No significant differences between group except 40-49 and 50-59 p=0,0387

Table 5.61: Ecstasy

Age	Race	Sex	COD
?	?	F	Accident
16	C	M	Accident
18	C	F	Suicide
24	W	M	Natural
17	C	M	Accident
29	C	M	Accident
55	W	M	Murder
30	W	M	Murder
20	W	F	Suicide

Ecstasy

- Reported 9 times of 458 positive cases (2%)
- Alcohol 0,00 (6) or not done (3)
- 6 of the 9 deaths occurred in 2001
- 1st reported death in 2000
- No other drugs reported with the use of ecstasy except in 2 murder victims

Cocaine

- 20 cases reported of 458 positive cases (4,4%)
- 7 cases in 2000
- 18 of cases considered to be lethal
- 2 cases cocaine contributed to the death
- 15 cases had 0,00 alcohol levels
- 12 cases white male
- 4 cases white females
- Ages ranged from 17-56

Heroin

- 14 cases reported of 458 positive cases (3%)
- 3 combined OD Heroin and Cocaine
- All white except 1 mule (black)
- 9:5 male:female
- Alcohol level 0,00 in 11 cases (2 not done)
- Ages ranged from 17-48

Summary

- Relative few death that are illicit drug related
- No routine screening
- No policy
- No data capture system
- Poor results from lab – speed and accuracy
- Cases can be missed

Recommendations

- Urine dipstix screening on all victims
- Full toxicology on specific cases – MVA driver/ dipstix positive
- Speedier results
- Tracking system to be put in place
- Data capture system to be put in place

5g: Stepping Stones Evaluation Study 2004

Mr Paul Coetzee

Goal:

The goal of the study was to evaluate the treatment programme used by Stepping Stones.

Design:

The study was explorative.

Utilised the random and convenience sampling methods.

Qualitative and quantitative approaches employed.

Six areas were explored.

Respondent acquisition commenced on the 1st April 2004 and was completed on 21st April 2004.

Few treatment centres evaluate their treatment programmes in South Africa.

The only exclusion criteria was death.

Follow-up

Telephonic interview schedule.

Focus Areas: 43 Questions were posed to each respondent. [n=89]

1. A.O.D. usage = 12 questions
2. Support Groups = 5 questions
3. Sponsorship = 7 questions
4. Aftercare = 5 questions
5. Quality of Life = 9 questions
6. Respondent Evaluation = 5 questions

Study population was 695. All admissions from 01 January 2001 to 31 December 2002.

230 [33%] of population formed the study sample using a random sampling method.

3% (6) of the sample had died.

Of the study population of 695, 51% could not be contacted, 39% took part in the study, 7% did not take part in the study and 3% had died.

Findings:

1. Alcohol or Drug usage

Table 5.62: Question = Have you used since leaving Stepping Stones (N=89)?

Abstinent	Relapsed
%	%
48	52

Table 5.63: Question = When did you last use AOD?

	Relapsed	Abstinent
Today	5	
Yesterday	1	
3-7 days	6	
3-4 weeks	2	
5-6 weeks	1	
7 weeks to 3 months	6	
4-5 months	7	
7-12 months	11	
13-18 months	6	9
19-24 months	1	7
24-30 months		19
36-42 months		8
Total	46	43

Table 5.64: Reasons given for relapse

Reasons	n
Cravings	9
Resentment	6
Stresses	6
Testing	6
Not willing	3
Family Death	2
Fear	2
Forced admission	2
Party	2
Peer pressure	2
Work problems	2
Depression	1
Partner	1
Soft Drugs	1
Unsure	1
TOTAL	46

2. Support Groups

Table 5.65: Question: are you attending 12 step meetings?

Attended meetings	Did not attend meetings
%	%
53	47

Table 5.66: Relationship between respondents who had attended 12 step meetings and those that did not. Relating to abstinence and relapse (N=89).

	Relapsed	Abstinent
	n	n
Attended	21	26
No Attendance	27	15
TOTAL	48	41

Table 5.67: Frequency of meetings as outcomes predictor for the attendees (N=47)

Frequency	n	Relapsed	Abstinent
Daily	1	0	1
Weekly	36	15	21
Monthly	5	3	2
Rarely	5	3	2

3. Sponsorship

Table 5.68: Question – do you have a sponsor (N=89)?

	n	%
Had a sponsor	40	55
Had no sponsor	49	45

Table 5.69: Relationship between respondents who had a sponsor or those that did not relating to abstinence and relapse (N=89)

	Abstinent	Relapsed
	n	n
Had a sponsor	26	17
Had no sponsor	13	33

4. Aftercare

Table 5.70: Question – Did you attend aftercare?

	n	%
No aftercare	40	45
Attended aftercare	49	55
TOTAL	89	100

Table 5.71: Relationship between abstinent and relapsed respondents who attended or did not attend aftercare (N=89).

	Abstinent	Relapsed
	n	n
Attended aftercare	30	13
No aftercare	21	25
TOTAL	51	38

5. Quality of life

Table 5.72: Question = choose which best describes your current relationship with:

	Much improved	Somewhat improved	Same	Somewhat worse	Much worse	Not applicable
	n	n	n	n	n	n
Partner	29	8	11	4	4	33
Friends	40	14	17	4	3	11
Family	45	19	9	4	4	8
Higher power	39	21	16	2	3	8
Self image	46	20	9	6	2	6
Emotional state	44	24	6	7	2	6
Physical health	49	15	13	4	2	6

6. Respondent Evaluation

Table 5.73: Question = Which aspect of the treatment programme was the best for you?

Aspect	n
Written work	1
Walks	6
Videos	1
Nurses	1
Life skills	6
Lectures	4
Groups	24
Family letter	1
Entire package	34
Counselors	11

Conclusions and recommendations

Efficacy

- The study shows the programme is effective.
- The study meets with international standards.
- Matching Alcoholism Treatment to Client Heterogeneity [MATCH] reflected 50% of sample was abstinent or showed significantly reduced drinking at 1 and 3 year follow-up.

Future research

- More evaluation studies are needed.
- Regional program evaluation body
- Policy indicators relating to minimum standards for programme evaluation

Stepping Stones

- Respondents who attended aftercare for 3 months or longer showed better outcomes.
- Respondents who attended weekly 12 step meetings showed better outcomes.
- Respondents who worked with a sponsor showed better outcomes.
- Respondents who relapsed did so primarily on alcohol and dagga.

5h: Cognitive effects of cannabis and Mandrax: Research update

Dr Paul Carey

Project title

The Functional Magnetic Resonance Imaging (f-MRI) of cannabis and cannabis/methaqualone abusers, their discordant siblings and normal controls.

The progress thus far...

Background

Considerable debate surrounds legalisation of the use of cannabis for recreational and medicinal purposes

However

- Over-simplification of the legalisation debate often precludes rationale study and evaluation of the data.
- Emotional campaigns often cloud open debate.
- This debate is essentially one that should remain in the medical domain.

One popular cannabis website attacks “myths” by medical protagonists of the adverse cognitive effects of cannabis citing data from 1973 to dispute more recent evidence.

The debates surround:

- Long-term physical harm (now have data)
- Dependence potential

- Psychological harm (nature and extent)
- Anxiety, psychosis, relapse, treatment outcome
- Gateway drug? – importance
- As yet overlooked therapeutic effects?
- Interference with driving?
- Impact of national policies on population behaviour.

With respect to the literature on the cognitive effects of cannabis more potent today

- “Flower power reefers” (60’s and 70’s) – 10mg
- 20th century “bong’s” – 15-30X more THC (150 – 300 mg)

As such research on effects needs to compare like with like!

THC binding to THC receptors in the nucleus accumbens: increased dopamine release

The interaction of THC with the reward system is not fully understood at this point. State that scientists know the least about THC. Over the last few years, there has been intense study to discover where and how THC works. One theory is that it acts in a similar way to opiates.

Does cannabis use cause cognitive impairment?

“I’ve never blacked out off pot, but ive gotten 2 the point that all i cood see wuz orange, coodnt walk, earz were ringin, heart pumpin n i wuz sweatin like a cood ov been laced, either that er my buddy wuz smokin sumthin else thru his bong b4 me! and the audio, yah itz happened a few timez, I woodnt wanna smoke weed that givez ya audio hallucinationz id b trippin the out lol. fer sum reason when i smoke i usually get rite paranoid n i cant sleep without sum kinda weapon close 2 me. i hate it”

Cannabis and cognitive impairment

- Cognitive effects following varying periods of abstinence in heavy abusers (Block 1993, Fletcher 1996, Solowji 1995)
- Limited evidence points to persistence of these effects to 28days+ of abstinence, but are mild. (Pope 2001, Harrison 2002)

Add to that...

- Combination with methaqualone
- Families/genes appear to account for significant proportions of variance in developing cannabis and sedative-hypnotic abuse (similar to methaqualone) (Kendler 1999, 2000, 2002, Lynsky unpublished)

and you have our question

- Are there long-term (28 day) effects on cognitive functioning of people now abstinent from cannabis and cannabis/Mandrax?
- Is there any indication that some of the deficits may be inherited?

So what is so exciting?

The first f-MRI studies in Africa !!

STUDY POPULATION

4 Groups:

1. Cannabis (12)
2. Cannabis / Mandrax (12)
3. *Healthy siblings* (24)
4. *Normal controls* (24)

- Age: 18 - 35 yrs.
- Sibling of same sex +/- 5 years

OUTLINE OF VISITS

1. Screening Visit (soon as possible) (2 hrs):
 - Day 7 – Neuropsychological testing
 - Day 14, 21 –abstinence monitoring
 - Day 28 – Neuropsychology & f-MRI

Testing for HIV

SUMMARY: POTENTIAL BENEFITS OF STUDY

- First neuropsychological study on these substances in S.A. combined with f-MRI scanning
- Effects on neuropsychological functioning of Mandrax compared to Cannabis/Mandrax
- *Long-term* effects (28 days)
- Addresses many of methodological problems of previous studies (eg. sample size, co-morbidity psychopathology).

Collaboration:

MRC Research Unit for Anxiety and Stress Disorders, Department of Psychiatry, University of Stellenbosch

McClean Hospital, Brain Imaging Centre, Harvard University, Boston, MA

South Africa Initiative of the National Institute on Drug Abuse, DHHS, WHO