FACT SHEET – METHAMPHETAMINE (“meth” “tik”, “tuk”, “Speed”, “crystal”)

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What is methamphetamine?

It is a powerfully addictive stimulant that affects many areas of the central nervous system. It is a white, odourless, bitter-tasting crystalline powder that readily dissolves in water or alcohol. The drug can easily be made in clandestine laboratories from relatively inexpensive over-the-counter ingredients and can be purchased at a relatively low cost (about R30/‘straw’).

Modes of administration

It can be smoked, snorted, orally ingested or injected intravenously. In South Africa it is typically smoked by placing the powder/crystal in a light bulb, from which the metal threading has been removed. A lighter is used to heat the bulb and the fumes are smoked.

Consequences of methamphetamine use

Acute intoxication and/or overdose

Methamphetamine triggers release of epinephrine, norepinephrine and dopamine in the sympathetic nervous system. Common effects of intoxication are euphoria, increased energy and self-confidence, insomnia, restlessness, irritability, heightened sense of sexuality, and tremors. Respiratory effects include increased respirations, pulmonary edema, pulmonary hypertension and decreased lung capacity. Cardiovascular effects include increased heart rate and blood pressure, tachycardia (abnormally rapid heart beat) and/or arrhythmias. Users run the risk of overdose characterised by dehydration, hyperthermia, convulsions, renal failure, stroke and myocardial infarction.

Long-term/chronic use

Prolonged use can result in severe weight loss/anorexia, severe dermatological problems, higher risk of seizures and uncontrollable rage/violent behaviour. Chronic mental health effects include confusion, impaired concentration and memory, hallucinations, insomnia, depressive reactions, psychotic reactions, paranoid reactions, and panic disorders. Long term use also increases the risk of contracting HIV and Hepatitis C due to injection drug use and sexual risk behaviour.

Epidemiology of methamphetamine use in Cape Town:

The following statistics were collected via the South African Community Epidemiology Network on Drug Use on patients presenting with methamphetamine problems in Cape Town since 2002.

Table 1 shows the proportions of patients who had methamphetamine as a primary or secondary substance of abuse for each respective 6-month period since January 2002 (where 2002a refers to January – June 2002, 2002b to July – December 2002, etc.). The ‘Total patients’ row refers to the total number of patients treated at over 20 specialist treatment centres for ANY substance (including alcohol, cannabis, Mandrax, heroin, cocaine, etc.). A graphic illustration is provided in Figure 1.

Table 1: Patients with methamphetamine as primary or secondary substance of abuse

	2002a		**2002b**		**2003a**		**2003b**		**2004a**		**2004b**	
	n	%	n	%	n	%	n	%	n	%	n	%
Primary	4	0.3	13	0.8	38	2.2	38	2.3	241	10.7	445	19.3
Secondary	7	0.4	19	1.2	43	2.5	83	5.0	188	8.3	223	9.6
Overall*	11	0.7	32	2.1	81	4.7	121	7.3	429	19.0	668	28.9
Total patients	**1608**		**1551**		**1724**		**1659**		**2255**		**2308**	

* Patients who have methamphetamine as primary OR secondary substance of abuse

These findings are unprecedented in terms of the sharp increase in the number of patients seeking treatment for methamphetamine related problems.

The average age of patients who reported methamphetamine as their primary substance of abuse in 2nd half of 2004 was 20 years and 72% were male. Most of the patients (88%) were Coloured, 10% were white, 1% Indian/Asian and 1% were Black/African. Notably almost 60% of the patients were younger than 20 years of age (see Figure 2). The ages ranged from 13 to 46 years.

Figure 1: Treatment trends - methamphetamine

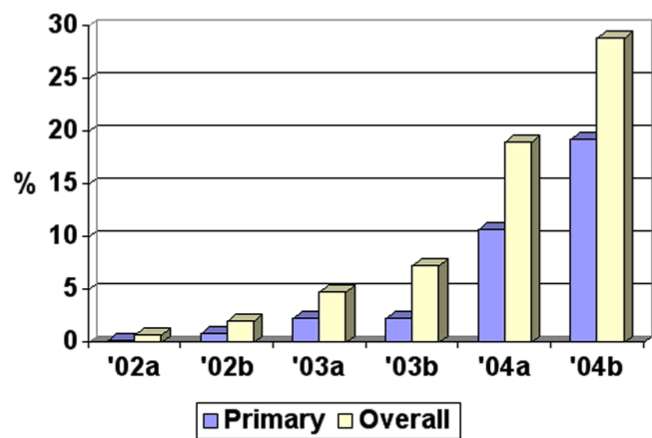
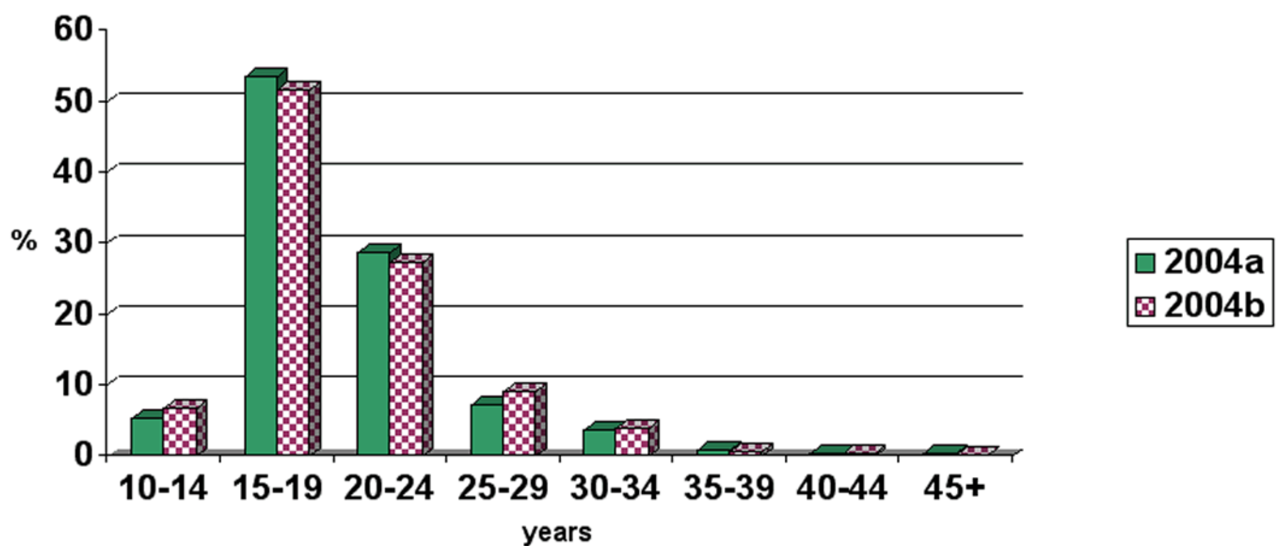


Figure 2: Age distribution of patients with methamphetamine as primary substance of abuse: 2004a & 2004b



Promising strategies for addressing methamphetamine in SA:

Prevention strategies

- Raise awareness and provide accurate information to the public and policy makers on methamphetamine.
- Introduce specific, science-based prevention programmes that target individual, family and community risk and protective factors for substance use.
- Actively promote the development of broad-based school-based drug policies.

Treatment strategies

- Ensure that there is adequate access to affordable and effective treatment.
- Establish methamphetamine treatment protocols in public hospitals and specialized care facilities.
- Equip primary health care providers/ER personnel to provide brief screening and interventions.
- Train health and social service providers, especially those in emergency room settings, to identify, assess and manage methamphetamine-induced psychosis, anxiety, withdrawal and overdose.
- Introduce science-based models of substance abuse treatment into community settings, especially cognitive-behavioural approaches which are particularly effective in treating methamphetamine abuse.
- Develop a systemic criminal justice approach with substance abusing offenders, using screening, assessment, monitoring and treatment.

Interdiction strategies

- Introduce laws governing the sale of precursor chemicals (e.g. pseudoephedrine, ephedrine, anhydrous ammonia and red phosphorous) used in the manufacture of methamphetamine.
- Investigate companies that distribute chemicals or equipment used in clandestine methamphetamine laboratories and seek harsher penalties for such crimes.
- Expand community policing strategies to engage the public in methamphetamine issues.
- Continue to put pressure on drug-related organised crime (especially focusing on certain related crimes such as perlemoen smuggling as well as on high intensity drug dealing/trafficking areas).