Current Extent and Pattern of Drug Abuse

R. Ray
Chapter II
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Before planning a programme and deciding resource allocation, it is necessary to estimate the extent and distribution of the condition within the population. This can also help identify correlated determinants and vulnerable sub-groups. Often this task is carried out through a sample survey of the general population or a sub-group. However, there is an innate difficulty in defining the concepts of drug dependence. It is also difficult to apply quantitative measures to ill-defined concepts. The search for possible causes is even more difficult because of methodological problems.

A common response when policy planning has addressed these issues is to over-simplify and describe the phenomenon in a summary fashion. In many parts of the world, including South Asian countries, the predominant concern has been the use of any drug ever used. The focus has been on the major harm caused by drug abuse — social disruption, violence and prominent health problems. In that context, the quantity and frequency of consumption is of little consequence. The studies carried out reflect these events for lifetime or current drug users. Core items described are socio-demographic background, drugs used, mode of use and age of first use.

There have been two types of epidemiological studies: population based and clinic based. Though the data from clinic populations offers valuable insights, one cannot generalize — what is true for a clinic population may not be so for the general population. It is easier to draw generalizations about a specific section of society from population studies on it.

METHODOLOGICAL ISSUES
Universally, the most often used technique has been the anonymous self-administered questionnaire. Other techniques include interviews with key informants, other knowledgeable persons or community leaders and household heads. All these techniques have been used in the studies carried out in this region.

SAMPLE SIZE
The main task is to select a group of people who are representative of the total or special population of interest. Sampling has often been neglected in drug abuse epidemiological surveys, thereby compromising accuracy and resulting in biases. Even when a study uses existing census data, the investigators require the expert advice of a statistician. Such expertise is not easily available for epidemiological studies in this region. A sampling frame and size can, however, be arrived at, using a standard formula. Presuming that the expected prevalence of substance use is 1.0 per cent (e.g., heroin), and allowing for 10 per cent error, the sample size is estimated to be around 39,000. As is evident, a truly representative general population survey would require considerable time, human resources and finances.

POPULATION OF INTEREST
Administrative or academic decisions need to be made with regard to the population type. This could be student youth, non-student youth, prison population or other defined vulnerable groups. The specific population should be defined before the sample size is determined. Some sampling schemes are more expensive and time-consuming than others. Simple random sampling is more costly, but costs can be minimized through stratified or multi-stage sampling.

PROCEDURES
The self-administered questionnaire, while frequently used in the West, is often inapplicable in the countries covered in this report because of low literacy levels. Most studies carried out in India have employed trained research staff to administer the schedule. They read out the questions, clarify and obtain answers. In general it is preferable that the respondents do not sign or reveal their identity — it is felt that subjects would be more honest if anonymity is maintained. However, this has often not been followed in these countries and respondents identify themselves. In student drug use surveys in the 1980s, WHO even suggested the inclusion of a “lie scale” by adding names of fictitious drugs to verify responses.

RELIABILITY AND VALIDITY
Most drug use surveys lack reliability or validity of the questionnaire or survey schedules. Field investigators are inadequately trained and inter-rater reliability statistics are not available. The validity of responses is doubtful, and while urine screening would help, the lack of technical expertise is a barrier. In addition, without a
health component such a request could appear strange and inappropriate in a general population survey.

**DATA ANALYSIS AND INTERPRETATION**

Instruments used in these countries are not in machine-readable form. Questionnaires are checked manually and data fed into the computer for further analysis. However, data analysis is not difficult. A large number of reports comprise straightforward descriptive information. The primary interest has always been the prevalence of use of various drugs in the community. Inferential statistics, i.e. cause, effects, differential degrees of association, require greater mathematical sophistication and very few studies have attempted these.

National Institute of Drug Abuse (NIDA), USA have carried out four types of surveys in the past:

a. Student survey
b. National household survey
c. Drug Abuse Warning Network (treatment centres data)
d. Survey on national attitude towards drug abuse

Studies of types ‘a’ and ‘c’ have been carried out in this region. In fact there are a large number of studies involving students. Though numerous population surveys have been carried out, none of the studies carried out in the region represent the nation as a whole. National probability samples were not chosen, though information is available for specific cities, towns or localities. The capacity for generalization is thus limited.

**COSTS**

The decision to carry out general population surveys must be weighed in the crucible of a cost-benefit analysis. General population surveys are expensive, especially if the base rate of a condition is low — as with heroin use, which is almost universally below one per cent. A survey that requires interviewing about 40,000 individuals will take eight-ten field staff around eight-ten months to complete just the data collection. Additional time will be needed for data analysis and report writing, which may extend up to six months. It will be at least 15-18 months before this report is available to the sponsoring agency. The total cost of such an effort is expected to be around 0.5 million Indian rupees (US$ 12,000).

An alternative methodology developed recently in this region is the Rapid Assessment Survey (RAS). Here, qualitative data is obtained from drug using subjects using the ‘snow-ball’ technique to identify a population. Subsequently, trained field staff construct drug use history by ethnographic methods. On occasion focus group(s) — slum residents, prison populations — have been interviewed. Such a method provides very useful information about drug use, if not precise estimates.

Subsequent pages describe recent information (1980 onwards) on the magnitude of the problem from various countries in the region. The information has been collated from various published documents, namely:

- National Master Plan (NMP)
- Country Strategic Plan
- National Drug Demand Reduction Strategy
- Mid-term evaluation of Drug Demand Reduction Programme
- Rapid Assessment Survey (RAS)

Additional research reports and publications in scientific journals have also been accessed. There are commonalities in several of the above reports. Specific references or sources have been cited at appropriate places.

**COUNTRY: BANGLADESH**

The major drugs of abuse in the country are heroin, cannabis and opium. Cannabis, though widely abused, is generally not perceived as a drug of abuse by Bangladesh society (NMP, 1993). It has been estimated that between 500,000-1,000,000 people in Bangladesh are addicted to drugs. These figures were arrived at through several research projects (National Drug Demand Strategy, 1995). An important study on drug abuse among students was carried out with assistance from WHO in 1991. The study revealed that among the students interviewed, 25 per cent were either using or had abused drugs in the past. Various drugs covered in the study included alcohol, tobacco and other narcotic and psychotropic substances. Most (83 per cent) were males.

Drug abuse is more often reported from urban areas, though treatment centre data indicates that drug abuse among rural population is also seen. It has been postulated that migrant workers employed in urban areas eventually carry back their drug use practice to rural areas.

Alcohol and a wide range of psychotropics are legally produced in Bangladesh, while cannabis and heroin are illicit compounds. Heroin, cannabis and tranquilizers are commonly abused. Of late, abuse of buprenorphine (an opiate) and cough syrups containing codeine have been reported. One of the alarming trends is the report of injectible drugs like buprenorphine, meperidine and sometimes heroin. The number of injecting drug users in treatment centres has increased from 6 per cent (1993) to 17 per cent (1995).
BANGLADESH

Common Drugs of Abuse:
- Cannabis
- Cough syrups containing codeine
- Sedatives
- Opiates

A Client Monitoring System has been established and for the year 1996, data on 1849 clients is available. However, the details were not available at the time of writing this report.

RAS 1997
The most comprehensive information on the current drug abuse situation is available from the RAS (1997) Draft Report. This study targeted seven population sub-groups in three major cities of Bangladesh (Dhaka, Rajshahi and Chittagong). Subjects, 250 from each group, were randomly intercepted on the streets and interviewed. The seven groups represented were: students, unemployed youths, industrial workers, commercial sex workers, slum residents, transport workers and jail inmates. A total of 1750 subjects were interviewed. The study also collected information through structured questionnaires and through the snow-ball technique from subjects in treatment centres and known users.

The major findings of the study were:

- Commonly abused substances reported were: heroin, cannabis (ganja and charas), cough syrups containing codeine, buprenorphine and sedative drugs.

- Among the 1750 subjects interviewed, most were adult males (81 per cent) of Islamic faith (92 per cent) with very little or no education (42 per cent illiterate, excluding student group), and unmarried (52 per cent). Most (47 per cent) had lived in the city for more than 11 years, a few (16 per cent) for 2 years or less. About 45 per cent came from 4-6 member families.

- Lifetime use of any drug including alcohol was between 32.6 - 39 per cent. Ganja (marijuana) was the most commonly reported drug of abuse, by 19.9 - 32.3 per cent of subjects. The use of opiates, i.e. heroin and opium together, was reported at 3.4 - 9.4 per cent. Total number of lifetime users for selected drugs is provided in figure 1.

- Cumulative percentage of ever use and lifetime use of various drugs in these three cities is seen in table 1 and figure 2 respectively. Certain regional variations, i.e. inter-city differences were also seen. Lifetime opiate use was most commonly reported from Rajshahi, while cannabis use was most common in Dhaka. Cumulative current (last one month) prevalence for opiates was 5.4 per cent (range 4.4 - 6.6 per cent) and for cannabis was 14.1 per cent (range 6.4 - 25.3 per cent). Current use (last 1 month) of cannabis varied between 1 - 46 per cent among different target groups, being highest among slum residents, transport workers and unemployed youths. Table 2 shows the wide variation in frequency of drug use. All drugs were used infrequently in the last month and in the last seven days except for cannabis and heroin in Rajshahi. Though buprenorphine is a drug of concern, only seven subjects reported use and that too only in Rajshahi! Lifetime prevalence of i.v. drug use was low and about 0.5 per cent.

- Among the seven population sub-groups interviewed in this study, about 35.2 per cent of slum residents, 26 per cent of jail inmates, 24.8 per cent of transport workers, 14.3 per cent of commercial sex workers and 11.2 per cent of industrial workers reported lifetime ganja (marijuana) use. About 3 per cent of the total sample reported injectible drug use.
Logistic regression analysis showed that subjects in the age group of 31-40 years were most likely to use ganja in their lifetime. Subjects living in rented houses were also most likely lifetime users.

**TABLE 1: Self Report of Ever Use (per cent), Bangladesh (N = 1750)**

<table>
<thead>
<tr>
<th>Drug type</th>
<th>Ever use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>36.1</td>
</tr>
<tr>
<td>Ganja (Marijuana)</td>
<td>25.8</td>
</tr>
<tr>
<td>Charas (Hashish)</td>
<td>4.7</td>
</tr>
<tr>
<td>Codeine (cough syrups)</td>
<td>11.3</td>
</tr>
<tr>
<td>Sedatives</td>
<td>8.0</td>
</tr>
<tr>
<td>Heroin</td>
<td>2.9</td>
</tr>
<tr>
<td>Opium</td>
<td>2.3</td>
</tr>
<tr>
<td>Meperidine (Pethidine)</td>
<td>1.1</td>
</tr>
<tr>
<td>Buprenorphine</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Source: RAS 1997, Bangladesh

**TABLE 2: Frequency of Current Drug Use Among Lifetime Users**

<table>
<thead>
<tr>
<th>Drug Type</th>
<th>Dhaka (N = 203)</th>
<th>Rajshahi (N = 113)</th>
<th>Chittagong (N = 139)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Times Ganja (Marijuana) used</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Last month</td>
<td>5.3</td>
<td>30.8</td>
<td>2.7</td>
</tr>
<tr>
<td>Last 7 days</td>
<td>1.4</td>
<td>9.8</td>
<td>0.8</td>
</tr>
<tr>
<td>Times Charas (Hashish) used</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Last month</td>
<td>0.6</td>
<td>29.5</td>
<td>0.2</td>
</tr>
<tr>
<td>Last 7 days</td>
<td>0.1</td>
<td>7.6</td>
<td>0.0</td>
</tr>
<tr>
<td>Times Heroin used</td>
<td>(N = 15)</td>
<td>(N = 22)</td>
<td>(N = 11)</td>
</tr>
<tr>
<td>Last month</td>
<td>1.5</td>
<td>21.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Last 7 days</td>
<td>0.4</td>
<td>5.1</td>
<td>0.0</td>
</tr>
<tr>
<td>Times Codeine cough syrup used</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Last month</td>
<td>2.0</td>
<td>6.3</td>
<td>4.7</td>
</tr>
<tr>
<td>Last 7 days</td>
<td>0.4</td>
<td>1.3</td>
<td>1.1</td>
</tr>
</tbody>
</table>

Source: RAS 1997, Bangladesh

**RAS — HIGHLIGHTS**

- Opiates (ever use): 3.4 - 9.4 per cent
- Cannabis - Ganja (ever use): 19.9 - 32.3 per cent
- Alcohol (ever use): 32.6 - 39 per cent

**Drug Using Subjects**

Through the ‘snow-ball’ method, 449 current drug users (self reported) from eight target groups were interviewed. The results revealed that:
### TABLE 3.1: Mean Frequency of Use by Drug Using Subjects - Cannabis (Ganja)

<table>
<thead>
<tr>
<th></th>
<th>Dhaka</th>
<th>Rajshahi</th>
<th>Chittagong</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Last month</td>
<td>Last 7 days</td>
<td>Last month</td>
</tr>
<tr>
<td>Students</td>
<td>32.6</td>
<td>8.3</td>
<td>24.6</td>
</tr>
<tr>
<td>Unemployed Youth</td>
<td>44.8</td>
<td>12.6</td>
<td>19.8</td>
</tr>
<tr>
<td>Transport Workers</td>
<td>26.8</td>
<td>6.9</td>
<td>21.1</td>
</tr>
<tr>
<td>Slum Residents</td>
<td>18.2</td>
<td>4.5</td>
<td>37.1</td>
</tr>
<tr>
<td>Industrial Workers</td>
<td>34.9</td>
<td>10.6</td>
<td>25.0</td>
</tr>
<tr>
<td>Sex Workers</td>
<td>17.7</td>
<td>7.4</td>
<td>26.2</td>
</tr>
<tr>
<td>Jail Inmates</td>
<td>14.5</td>
<td>3.0</td>
<td>6.9</td>
</tr>
<tr>
<td>In Treatment</td>
<td>6.1</td>
<td>0.02</td>
<td>20.0</td>
</tr>
</tbody>
</table>

### TABLE 3.2: Mean Frequency of Use by Drug Using Subjects - Heroin

<table>
<thead>
<tr>
<th></th>
<th>Dhaka</th>
<th>Rajshahi</th>
<th>Chittagong</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Last month</td>
<td>Last 7 days</td>
<td>Last month</td>
</tr>
<tr>
<td>Students</td>
<td>0.0</td>
<td>0.0</td>
<td>0.9</td>
</tr>
<tr>
<td>Unemployed Youth</td>
<td>0.8</td>
<td>0.1</td>
<td>15.6</td>
</tr>
<tr>
<td>Transport Workers</td>
<td>3.6</td>
<td>0.7</td>
<td>8.0</td>
</tr>
<tr>
<td>Slum Residents</td>
<td>9.2</td>
<td>2.6</td>
<td>23.1</td>
</tr>
<tr>
<td>Industrial Workers</td>
<td>2.5</td>
<td>0.6</td>
<td>3.4</td>
</tr>
<tr>
<td>Sex Workers</td>
<td>8.0</td>
<td>1.9</td>
<td>0.5</td>
</tr>
<tr>
<td>Jail Inmates</td>
<td>4.7</td>
<td>0.2</td>
<td>0.0</td>
</tr>
<tr>
<td>In Treatment</td>
<td>12.4</td>
<td>0.0</td>
<td>26.2</td>
</tr>
</tbody>
</table>

### TABLE 3.3: Mean Frequency of Use by Drug Using Subjects - Buprenorphine

<table>
<thead>
<tr>
<th></th>
<th>Dhaka</th>
<th>Rajshahi</th>
<th>Chittagong</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Last month</td>
<td>Last 7 days</td>
<td>Last month</td>
</tr>
<tr>
<td>Students</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Unemployed Youth</td>
<td>6.4</td>
<td>1.7</td>
<td>6.0</td>
</tr>
<tr>
<td>Transport Workers</td>
<td>4.2</td>
<td>1.1</td>
<td>6.0</td>
</tr>
<tr>
<td>Slum Residents</td>
<td>26.2</td>
<td>5.7</td>
<td>15.6</td>
</tr>
<tr>
<td>Industrial Workers</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Sex Workers</td>
<td>0.02</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Jail Inmates</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>In Treatment</td>
<td>1.9</td>
<td>0.02</td>
<td>10.1</td>
</tr>
</tbody>
</table>

Source: RAS 1997, Bangladesh

- About 65 per cent were between 21-30 years; 90 per cent were Muslims; 58.2 per cent were unmarried. About 29 per cent were illiterate (except students) and 49 per cent came from families with 4-6 members. About 38 per cent came from low income group and 32 per cent from high income group.
- Mean frequency of use of selected drugs was estimated. It showed that ganja use (mean) was high in the last month but varied between target groups. This is seen in tables 3.1-3.3. Frequency of heroin use was high among persons in treatment (total=71), and more so in Rajshahi. Buprenorphine abuse was seen mostly among slum...
residents in two cities. In other words here, too, cannabis was the most often used drug. About 29 per cent admitted injectible use (lifetime) and 12 per cent reported needle sharing.

The authors reported that in Bangladesh low-potency heroin (brown sugar) was the drug of choice about a decade ago. Currently, ganja (cannabis) is the drug of choice. A few heroin users have started using buprenorphine. Overall, heroin use is low or even nil, as seen in Chittagong. However, social, economic or other reasons for such a pattern (of choice of drugs) were not obvious from the report.

In another draft report (National Five Year Strategic Plan, 1995) it was stated that the number of addicts in Bangladesh varies between 500,000 - 1,000,000. Most are within the age group of 18-30 years and it was felt that drug abuse was more of an urban phenomenon. The report also indicated that injecting drug users among subjects in treatment centres have increased from 3 per cent to 17 per cent currently. Between 1990 and 1994, a total of 4397 persons were treated in various treatment centres. All age groups were represented; however 66 per cent were dependent on heroin. 66 per cent were within the age group of 21-30 years. About 46 per cent were dependent on heroin. In 1994, for the first time a number of individuals dependent on buprenorphine (10 per cent) were reported.

Increase in injecting drug use and needle sharing are of great concern as it is associated with several health hazards. Further, about one-fourth of the drug using population admitted visiting sex workers. Thus the risk of acquiring HIV and other sexually transmitted diseases is high. This could result in serious social conflict as most of the population of Bangladesh is conservative and not open to casual sex and casual sexual norms. As the country does not have monitoring systems for diseases, the transmission or spread of HIV could occur without public awareness (RAS, 1997).

COUNTRY: INDIA

Alcohol, cannabis and raw opium have been the traditional drugs of abuse in India. There is a large body of published Indian reports and research on the prevalence of drug use. Three groups have been studied: student youth, non-student youth and general population. Some researchers have also studied special groups like medical students, doctors and psychiatric patients. Four recent general population surveys (1986 to 1992) have been carried out and each had 10,000 - 30,000 subjects. These were undertaken in five different regions of the country. However, the subjects were mostly urban and hence the data reflect the extent and magnitude of drug abuse in these cities.

COLLEGE STUDENTS

The studies from the 1970s to mid-1986 on drug use focused mainly on students. Alcohol, tobacco, and pain killers were also included along with illicit compounds. It was seen that alcohol and tobacco were mostly abused. A multi-centred study on the magnitude of the problem among college students was carried out in 1975, in 7 metropolitan and non-metropolitan centres. This study was repeated using similar design, methodology and instruments in 1986, i.e. after a gap of ten years. In 1975, about 26,000 students were interviewed using a self administered proforma. Alcohol was the most abused, (by 10 - 15 per cent), followed by tobacco, by 8 - 15 per cent and tranquilizers by 1 - 2.5 per cent of the students. Boys were more often current (past one year) users. No opiates, stimulants and other drugs were reported. In 1986, the study was carried out in 9 centres and had a total sample of 45,000 students. The results after a gap of ten years were essentially unchanged except for heroin use. For the first time heroin use was reported by 0.02 - 0.04 per cent of students. They used heroin by inhalation. No intravenous drug users were reported (Mohan et al., 1976; 1987). Several other studies reported higher figures for current use and the figures varied between 1.5 - 19 per cent for drugs excluding alcohol and tobacco.
Cannabis use was quite common. The rates were higher for medical students. Another study carried out in 5 cities of Karnataka (south India), showed that current prevalence for various drugs was highest for alcohol (about 40 per cent), followed by cannabis (5.4 per cent), psychotropics (3.0 per cent), heroin (1.1 per cent), and other opiates including opium (1.3 per cent). In other words, both the studies, the multi-centred study (Mohan et al., 1987) and the Karnataka study (Channabasavanna et al., 1990) reported heroin use among college students for the first time in India in 1986! Lifetime prevalence rates for various drugs were much higher and upto 56 per cent.

### INDIA

**Drug abuse among college students between 1975 - 1986:**

- Common drugs abused: alcohol, tobacco, minor tranquilizers, analgesics and cannabis
- Replicated multi-centred (7/9 centres) study revealed similar period prevalence in 1975 and 1986
- Heroin use reported in 1986 by two studies for the first time

### SCHOOL STUDENTS

Between 1977 and 1987 two large studies were carried out among senior high school students. One was a multi-centred study carried out in 4 metropolitan cities. Data on use over past one year, revealed that as was seen among college students, alcohol was the most commonly abused substance (4 - 13 per cent), followed by tobacco (3 - 6 per cent), and minor tranquilizers (1 - 4 per cent). There were no reports of cannabis or opiate use (Mohan et al., 1985b; 1987).

Summarizing, it is apparent that abuse of drugs was noticed among students (college/senior high school). The rates of use vary as different drugs and different definitions of drug abuse were used. By and large, current drug use meant “ever use in last one year”, and alcohol, tobacco, pain killers, minor tranquilizers and cannabis were the common drugs of abuse. Since then the focus shifted to general population surveys and no large scale study has been carried out among students.

### GENERAL POPULATION

Information on the magnitude of the problem among the general population is available from four kinds of sources:

A. Research reports
B. Data from treatment centres
C. Views expressed by key informants like government officials, teachers, community leaders and addicts themselves
D. Registered opium addicts

### A. Research reports

There have been several research studies on epidemiology of drug abuse funded by international and national funding bodies like WHO, Indian Council of Medical Research (ICMR), Ministry of Health and Family Welfare, Ministry of Welfare and individual teaching institutions.

For the period between 1989 and 1993 (data collection 1986 - 1992), reports from four large epidemiological studies are reviewed here (Table 4). Three of the studies were carried out in cities of north, west and south India. The fourth study in Manipur (N.E. India) had both a rural and an urban sample. One of the studies carried out in Delhi (study 4) was a survey and re-survey (after one year) using the same methodology. Thus the results were replicated. As seen in the table, the total sample size of the studies varied between 4,000 - 30,000 subjects. The sample was chosen carefully by random selection so as to permit generalization. The information was collected on a pre-coded standard interview schedule by trained interviewers in the field (research staff) during face to face interviews with individual respondents. Some of the studies carried out a reliability exercise among the interviewers and the values were reported. In one of the studies (study 4), the information was obtained from the head of the household (H.O.H.). The authors in a separate communication reported the reliability and validity of data obtained from the H.O.H as against the individual informants, and claimed that the data was reliable (high degree of agreement, high Kappa and ICC values) and cost-effective. One of the studies (study 1) added the name of a fictitious drug to check reliability of information provided.

These reports showed that drugs were mainly used by men and 92 - 94 per cent of women were non-drug users (lifetime). Among men, the period prevalence (current use - 1 month) showed estimates of various drugs used: heroin 0.2 - 1.3 per cent, raw opium including other opiates 0.3 - 0.5 per cent, cannabis 0.4 - 1.7 per cent. Three of the studies (studies 1, 3, 4) also attempted to project the number of dependent users through “self report of craving”, “cannot do without” or clinical criteria of dependence. Most heroin users (about 90 per cent) were dependent. However, among cannabis users about 50 per cent were dependent. No injectible drug users (IDU) were reported in three of the studies.
The study carried out in Manipur (no. 2) is particularly important and identified 130 heroin users in late 1989. Nineteen of these heroin users were women. The authors calculated that among the population between the age of 10 - 50 years, the current prevalence rate for heroin use was 0.9 percent. However, as there were few women users, table 4 shows data for men only. About 66 per cent were in the age group of 21 - 30 years. Among opiate users, 83.2 per cent were intravenous heroin users. Unlike the rest of India, in the N.E. States including Manipur, stronger potency heroin is available - White Powder (“Number 4”) - and dissolves in water; it is thus injected. Further, needle sharing was very common. See Box Item -1 for case reports, on i.v. heroin use in Manipur, India.

More recent studies from urban India have shown escalation of IDUs. There are other drugs which are currently injected. These consist of a combination of propoxyphene (capsules dissolved in water), buprenorphine, diazepam, promethazine and pheniramin (often in combination). Box Item - 2 provides a typical case history.

Certain regional variations have been reported. Rajasthan (west India) and Punjab (north India) reported a greater number of subjects with raw opium use. In other parts of India, heroin (brown powder, low potency) is more often used through inhalation (chasing). Cannabis use is more commonly reported from Uttar Pradesh, Himachal (north India), Bihar and Orissa (east India). In N.E. States like Manipur, it is more often heroin (white powder, high potency). Rural drug abuse among the older generation reveals more traditional drugs (opium and cannabis) being used, although rural heroin use in certain regions has been reported. In a rural district in the State of Bihar adjoining Uttar Pradesh, of the residents of the district (population size about 75,000), between 2.5 - 3.5 per cent of males were heroin users. Heroin was mostly inhaled and the majority of users were landlords and semiskilled workers, while some were unemployed youth. A few women heroin users were also reported (Tripathi et al., 1990, personal communication). The investigators noted that the district studied was close to a traditional opium growing area, though raw opium was not consumed by most.

The studies reviewed in table 4 were carried out mostly in urban India, and most commonly reported percentage of current (past 1 month) opiate users (heroin, opium and other opiates) is around 0.7 per cent among adult men. If this figure is projected for the whole of urban India (27% of total Indian population), the total (approximate) number of opiate users among urban men between 16-60 years of age is expected to be around 0.5 million and the figures for total cannabis users (current prevalence 0.4 per cent) for the corresponding population, around 0.3 million. However, the national numbers could be much higher as there are no estimates of drug use in small towns and rural India.

Selected characteristics of users: Drug use was mostly seen among men. Women were overwhelmingly continued on page 21
The problem of intravenous (i.v.) drug use in Manipur is a persistent one, affecting a large number of youths. Several health, family and social problems have been seen as a result of this. In recent times, i.v. heroin use has increased particularly among students and young people. It is estimated that about 15,000-20,000 injecting drug users (IDUs), mostly heroin users, exist in the state. Though heroin is the primary drug of choice, other drugs like opium, propoxyphene, cough syrups, benzodiazepines and alcohol are also abused.

Several health hazards due to needle sharing among IDUs have been reported; HIV/AIDS is most conspicuous. It has been reported that the prevalence of HIV seropositivity among IDUs is around 70%, and among the HIV positive persons, about 74% are IDUs. Most of them (IDUs) are young; about 95% are in the age group of 11-40 years, and about 73% share their injecting equipment with 2-3 persons (Report by Manipur Unit of ICMR and VHAI, 1992). Two case reports of i.v. heroin use presented below illustrate these aspects.

**Case 1**
Mr. D, a 34 year old married man with one son came to the hospital with a history of heroin use from 1981. He had studied up to class X and started his own business. Between 1981 and 1996 he used heroin, mostly by inhalation (chasing), 2-8 times per day, depending upon the money available. In 1997, he changed to injecting heroin to achieve quicker and heightened effects. The method (i.v.) helped him to cut down the expenditure on drugs as he needed a smaller amount. He injected heroin in the company of his friends and in places like hotels, open spaces or isolated areas. He often shared his needle/syringe even though he was aware of the risk of acquiring HIV/AIDS through such injecting practices.

During his long years (16) of heroin use, he gave up several times with medical help. However, each time the period of abstinence lasted a few months only. He was once able to give up for one year, and cited reasons such as craving, peer pressure and unhappy moods for his relapse.

As he often went out of town on business, his wife did not notice his drug consumption. Most of his earnings were spent on drugs and in addition, he obtained money from his parents on some pretext or other to support his habit. He later started demanding money from his wife, and friends and sold his wife’s gold ornaments to sustain his habit. Frequent quarrels took place at home and his wife once left him for three months. He has sought treatment again now and wants to lead a drug free normal life.

**Case 2**
Mr. C (26, unmarried male) reported for treatment with eleven years of drug use. Longitudinal history revealed that he started smoking cigarettes at the age of 12 and drinking alcohol at 15, with his school mates. After about 2 years he started using cough syrups and continued for about 3 years (upto 1.5 bottles a day). In 1988, he was introduced to injecting heroin by his friends. He injected heroin 3-4 times a day and shared needles with his friends. He often used other drugs like nitrazepam and propoxyphene when he could not obtain heroin. His family runs a small hotel and he managed to obtain Rs. 100-200 (US $ 2.5-5) daily from the hotel to buy heroin. Subsequently, as his consumption went up he worked as a pusher to sustain his habit.

He was arrested three times by the police and had been in jail for periods varying between one and ten months. However, he relapsed as soon as he came out of prison. He was treated once in the past and could abstain only for a short time. Drug use restarted due to his friends’ pressure and anger towards his parents, as he felt that they did not care for him while he was in jail. He has reported for treatment again on his own and wants to quit drug-taking.

**Comments**
Both these case vignettes reveal that these two subjects in Manipur have used drugs for long durations, as is often the case with many others. Both licit and illicit drugs are used and the choice depends upon availability and money. Injection of heroin is preferred as it is freely available and the injectible route ensures quick and heightened effects. Needle sharing is very common and such injectible practices along with other high risk behaviour are not influenced by knowledge regarding HIV transmission, education status and even sero-status of the individuals (Report, Manipur Unit, ICMR). Abstinence following treatment is hard to come by. Given such a scenario, introduction of certain other measures, including adoption of harm minimization approach, should be seriously considered.
REFERENCES:


2. Indian Council of Medical Research (ICMR), Manipur Unit: Research done so far in Manipur.

The use of injectible heroin in India is limited to certain north-eastern States, and is occasionally to be found in metropolitan cities among a small number of individuals. In the rest of India, drugs commonly abused through the injectible route are: buprenorphine, pheniramine, promethazine and diazepam, and to a lesser extent, propoxyphene and pentazocine. These have gained popularity since they are readily available and are cheaper alternatives to heroin. A large proportion of drug users do not know how to inject properly and complications are common. Low awareness of health and hygiene issues have resulted in a host of health problems — abscesses, blocked veins and the spread of hepatitis and HIV/AIDS.

In a sample of 150 such IDUs in Delhi, it was seen that the average age of onset of drug use was 20 years and the average age of initiation into injecting drug use was 28 years. Most had used heroin (chasing) before switching to injecting the above drugs. A few, though, began drug use with injections (new recruits). The average duration of dependence was 15 years and 10 years passed before first treatment contact. These subjects usually injected drugs 4-5 times a day through use of 5 ml syringes. Buprenorphine in combination with other drugs was used. Most subjects came from lower income families with low literacy levels and were daily wage earners. In Delhi, the presence of “hit doctors” who charged a fee for administering injections, and a place to take a “hit” were also seen.

The following is a case history of a typical i.v. drug user.

**CASE HISTORY**

Kalyan Singh (name changed) is an injecting drug user who lives in a lower middle class colony in New Delhi. Unmarried, he is 28 years old. At the age of 14 he began smoking cannabis and resinous hashish. The use of both was prevalent in the area in which he lived. He did not experience any significant negative effects from his sporadic cannabis use. At the age of 20, he started smoking “smack” — a crude form of heroin that is normally inhaled through a paper tube after being heated on a foil. He was initiated into smack by friends from the same colony who were using the substance on a regular basis. Kalyan Singh used smack for 4 years, and then managed to quit for a period of 2 years when he went to his village in Nepal, though he drank alcohol regularly during that time. On his return to Delhi, he was re-introduced to smack use again through a friend of his who was a regular smack user. He continued to use smack regularly for a year or so, but frequently encountered financial difficulties because of the substantial increase in the cost of heroin.

A year later, when he was 27, he met a person who initiated him into the use of buprenorphine through injection. For a period of a year, he used 2 ml of buprenorphine four times a day, which totalled 8 ml daily. He reported the sharing of needles when there was a shortage of injecting paraphernalia. He subsequently began cocktailing buprenorphine with pheniramine and diazepam in varying combinations. The total syringe capacity he used was 5 ml. He injected 4 times a day, using 8 ml of buprenorphine and making up the rest in cocktailed solutions of whatever was available.

During this time, he sought admission to and successfully attended the Sharan (Delhi based NGO) detoxification camp. Following this, he stayed off opioids for a short while. He stopped injecting completely and resumed “chasing smack” again for a period of around six months. There were two factors that motivated the reduction in injecting: it was harder to locate veins and his veins were collapsing; and Sharan’s intervention messages had made him aware of the hazards of injecting. The shortage of money eventually led to a reversion to injecting buprenorphine.

He is currently injecting 4 ml of buprenorphine in two 2 ml doses when he is short of funds, and increases it to 6 ml of buprenorphine in combination with 6 ml each of pheniramine and diazepam when more funds are available. The non-availability of buprenorphine in the market has pushed the price up, and this has led him to desperately seek treatment. He is now seeking treatment at Sharan’s centre, and has also been requesting admission for rehabilitation at the Sahara House (Delhi based NGO) therapeutic community.

**COMMENTS**

When heroin became difficult to obtain in cities, buprenorphine gained popularity as a ready and cheaper
substitute. It became popular since many centres used it in tablet form for medical detoxification. The drug users were exposed, liked the effects and found that injectible buprenorphine was easily available with local chemists. Surprisingly, tablet buprenorphine is not so readily available! In numerical terms, buprenorphine use, either alone or in combination with other drugs, is increasing rapidly in various cities not only in India, but also in Nepal and Bangladesh.

Assessment of drug treatment services in Delhi showed little consciousness about the potential hazards of injecting drug use and consequently focussed little on specific treatment for this mode of drug use. This included poor information on HIV for both drug users and their sexual partners. If treatment services fail to take into account the specific needs of injecting drug users, the consequences of the spread of HIV and hepatitis are going to be enormous. Treatment centres cannot be oblivious to the changing patterns of drug abuse, and appropriate interventions need to be initiated urgently. In our centre, we have launched a pilot project that includes maintenance medication and rehabilitation measures. These have shown high compliance and have had an encouraging outcome.
S.K. was born in a remote village of eastern India in 1972 to poor illiterate parents. The youngest of six siblings, she started going to school at the age of six, but dropped out at the age of 12 because she was naughty, disobedient and did not do well at academic work. Her father was an alcoholic, and was often abusive when intoxicated, assaulting his wife regularly. S.K.’s mother worked as a labourer in the fields to make two ends meet. Both the parents pampered S.K. as she was the youngest and the only girl child. All her elder brothers migrated to Mumbai and Calcutta for better jobs at an early age; none of them could attain even primary education.

When S.K. reached puberty, her parents were keen to get her married. “I was upset and scared at the thought of my marriage plans and I did not want to undergo a plight similar to that of my mother. I mentally decided to abscond from my hometown to either Calcutta or Mumbai”, narrated S.K. She did not run away immediately, since her father died suddenly towards the end of 1986. Her brothers came to perform the last rites of their father, and vigorously pursued the subject of S.K.’s marriage plans. Disgusted, she left her house one afternoon for the nearest railway station with little money in her pocket. At the railway station she felt a strong urge to go back home. Crying and confused, S.K. was befriended by a middle class couple who were on their way to Mumbai. After hearing her story, they offered her the job of housemaid in their home. They did not make any attempt to send her home.

In Mumbai, her first salary was Rs. 100 (US $ 2.5) a month. Her employers were kind, but did not allow her to go out of the house frequently. After about a year, S.K. got bored and fell in love with a young man who was working in the neighbourhood as a driver. She married him in a temple and began living with this man ‘M’ in one of the city’s shanty towns.

She soon realized that her husband drank a lot of alcohol and also smoked a special cigarette (she later discovered that it contained heroin - brown sugar). After much effort S.K. persuaded her husband to discontinue drinking; he reluctantly agreed but said that he would need additional special cigarettes.

Gradually, S.K. started buying the drugs for him and began to roll the cigarettes. One day while her husband was smoking she had a sudden urge to smoke herself. She asked her husband’s permission. He protested feebly but did not stop her. The first puff made her cough very badly and after a few puffs she vomited. She vowed never to touch “brown sugar” again. After a few days her husband offered her a cigarette again. This time S.K. did not vomit. For the first time she felt happy, as happy as she had felt in her village when she played with her friends. She smoked more and more and bought a large quantity of brown sugar for both of them. She was sixteen years old.

After a few months her husband lost his job and S.K. decided to work again. A middle-aged woman offered her a job in the city with a very high salary (around Rs. 10,000 or US $ 256 a month). She was told that she would have to stay with a large family. S.K. jumped at the offer and landed up in a brothel. With the money she made, she could buy enough “brown sugar” both for her husband and herself. Surprisingly, the brothel keeper did not object to her intake of brown sugar.

Gradually S.K. saw less of her husband though she supported his addiction financially. As time passed her consumption increased from 1/2 gm to 4 gm per day and she started experiencing withdrawal symptoms. After about six months, she developed pneumonia and was hospitalized. When she was discharged, she vowed never to touch the substance again. She abstained for six months, though she took tablet nitrazepam to sleep.

Her husband died around this time. Her grief was considerable, and she restarted “brown sugar” (chasing) along with another addict. Soon her consumption reached her previous levels. She started living with other addict friends in a slum and the use of brown sugar continued.

After a year she developed fever and lost a lot of weight. She reported to a hospital and was diagnosed to be suffering from tuberculosis. The doctors warned her to stop smoking cigarettes and “brown sugar”, though she was not referred to any treatment centre for her addiction. She tried voluntarily to decrease the consumption of “brown sugar” but was unsuccessful.
Three years after she began to smoke “brown sugar”, she heard about some de-addiction centres in the city. She approached them but they had no facility to admit female patients and she was referred to the municipal hospital. Since she was alone, all the hospitals refused to admit her.

Her physical condition gradually deteriorated and she began living on the streets with fellow addicts. Here she was sexually exploited on more than one occasion. She was also detained by the police for 24 hours on two occasions. Her income had gone down and she found it difficult to solicit clients. She did not resort to theiving as her fellow addicts took care of her. Gradually many of them died until only two of her friends were alive. Though she saw a few male addicts injecting drugs, S.K. was too scared to do it herself. She was comfortable with chasing and smoking “brown sugar”.

Around that time a social worker took pity on her, escorted her to a de-addiction centre and somehow hospitalized her. She lived there for a month and was treated for her tuberculosis as well. S.K. abstained from “brown sugar” for five months and found a job as a barmaid in a restaurant. For the first time in her life, she began consuming alcohol (1/2 a bottle to a bottle a day) against which she had formerly nursed a terrible hatred. She soon went back to “brown sugar” and sleeping pills in the same maximum amount as before. During this period she had four convulsions and was hospitalized briefly on two occasions. She stopped consuming sleeping pills after the convulsions on the advice of doctors.

Six months later she had herself admitted to a new de-addiction centre where she is still an inmate. She has been detoxified and treated for her tuberculosis, which was inadequately treated in the past. She has also undergone counselling and been treated for her other physical complaints. During her stay there for the last one year she has remained an abstainer. For the first time in her life, she has felt a strong urge to meet her family members. She has begun praying to God after a very long time.
**BOX ITEM - 4**

**PROFILE OF A HEROIN USER: CASE STUDY**

Pratima Murthy

B is the older of two children of a wealthy Hindu businessman from South India. His father was very ambitious and engrossed in his business. He had little time for his children. At the age of 14, B started to drink alcohol with his friends, and had his first heterosexual encounter with a commercial sex worker. Apart from his occasional surreptitious drinking of alcohol, B had no problems in school or in his family. He was thought of as an obedient boy, was regular at school, and like many of his friends, shared a passion for fast cars and motorbikes.

His father died suddenly of a heart attack when B was 17 years of age. The entire weight of the business fell on him, and he had no guidance from anyone. Around the age of 19, on a picnic with his friends, he was urged to smoke ganja (cannabis). This made him feel good and over the next months, he occasionally smoked cigarettes filled with ganja. He soon started smoking ganja daily. A year later he was introduced to “brown sugar” (heroin) by his friends. He first learnt to “chase” (inhale) it, and later started to inject it. Within a year, he was injecting upto 10 gm per day. Following such heavy doses, he started experiencing severe withdrawal symptoms such as stomach pain, sweating, increased thirst, and would need to lie in bed all day. At times when he took a heavy dose he would also become extremely clumsy, depressed and feel helpless and hopeless about life. He tried to stop his habit by himself but the withdrawal symptoms were so distressing and the craving so strong that he would restart.

His family did not know about his drug use for the first three years. Once, while watching a football match, he suddenly became uncoordinated, agitated and anxious. He was then rushed to a psychiatrist and following treatment, was advised to stop his drug intake. Because of the craving, he immediately restarted after his discharge and fell back into his earlier pattern. Sometimes, when he had acute withdrawal and “brown sugar” was not available, he would inject himself with injection phenergan (promethazine). Over the next few months, as “brown sugar” became more difficult to procure, he switched over to injection tidigesic (buprenorphine) or fortwin (pentazocine), depending on availability. He would obtain the drugs from different pharmacies, often paying several times more than the price of the drug, and sometimes producing forged prescriptions.

Noticing that he had become very withdrawn, his family had him admitted to a treatment centre. Following his discharge from the centre, he rapidly reinstated drug use, unable to tolerate the critical comments made by his family, and soon went back to heavy drug use. He started to feel incapable of doing anything physically or mentally. This led to a vicious cycle of feeling low and frustrated leading to drug use, after which he would become dysfunctional and would not be able to handle the criticism, which would make him feel low. He started to spend a lot of time in bed. He once attempted to hang himself, but the rope broke and he fell. The sound alerted his family. His attempt to end his life was thus prevented and he was brought for treatment to the centre again.
However, a few female drug abusers do exist. The profile of a female drug abuser from a metropolitan city is described in Box Item - 3. Most subjects (men) were introduced to drug use between 16-21 years, though tobacco use started earlier, around the early teens. No social class or ethnic group is immune to drug use. It has recently been reported among practically all population sub-groups, i.e. upper class, lower-middle class, white collar workers, transport workers and unemployed youth. As is obvious from the above description, the users come from all walks of life as regards their employment status. More details are discussed later, including those from profiles of subjects reported from various treatment centres. Box Item - 4 describes the clinical profile of a typical heroin user in India.

B. Data from Treatment Centres

Information from 194 Non-Government Centres (NGOs) funded by the Ministry of Welfare, Government of India, reveals the number of drug abusers at these centres, according to various drug types. Of these NGOs, 123 were counselling centres and 71 were de-addiction centres. The data for the year April 1993 - March 1994, showed that about 42 per cent of subjects were abusing alcohol and 37 per cent were abusing opiates. Opium users were more often reported as against heroin users (table 5). However, the figures do not suggest the total number of individual subjects. A number of times subjects were reported both from counselling and de-addiction centres. Further, subjects were counted for several drug types if multiple drug use was reported. Thus, these figures stand for events/episodes among subjects with drug dependence, rather than ‘cases’ as understood in the terminology of the drug abuse monitoring system. A few subjects with cocaine, LSD and amphetamine abuse were also reported. During the year 1996-97, 3,05,098 subjects registered in 341 NGO centres (counselling centres - 218, de-addiction centres - 123) and 1,14,831 were detoxified (Country Report, India, Ministry of Welfare).

In another study from a large government hospital, All India Institute of Medical Sciences (AIIMS), New Delhi, no patient with heroin dependence was seen till 1980. In 1981 heroin dependence was reported for the first time and between 1981 and mid-1984, 105 patients were seen. Most were men below 30 years of age, and were using heroin through inhalation (chasing) for one year or less (Mohan et al., 1985a).

Clinical service data from this same treatment centre (AIIMS) revealed that between 1989 and 1994, among

<table>
<thead>
<tr>
<th>Drug Type</th>
<th>N=123, Counselling Centres</th>
<th>N=71, De-addiction Centres</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Alcohol</td>
<td>24,879</td>
<td>13,971</td>
</tr>
<tr>
<td>2</td>
<td>Opiates</td>
<td>15,845</td>
<td>17,343</td>
</tr>
<tr>
<td>2.1</td>
<td>Opium</td>
<td>6,786</td>
<td>6,582</td>
</tr>
<tr>
<td>2.2</td>
<td>Heroin</td>
<td>8,364</td>
<td>10,122</td>
</tr>
<tr>
<td>2.3</td>
<td>Other opiates</td>
<td>1,573</td>
<td>1,502</td>
</tr>
<tr>
<td>3</td>
<td>Cannabis</td>
<td>8,012</td>
<td>3,683</td>
</tr>
<tr>
<td>4</td>
<td>Cocaine</td>
<td>315</td>
<td>55</td>
</tr>
<tr>
<td>5</td>
<td>LSD</td>
<td>242</td>
<td>27</td>
</tr>
<tr>
<td>6</td>
<td>Amphetamine</td>
<td>62</td>
<td>82</td>
</tr>
<tr>
<td>7</td>
<td>Other drugs including</td>
<td>4,726</td>
<td>2,251</td>
</tr>
<tr>
<td></td>
<td>psychotropics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>54,959</td>
<td>38,275</td>
</tr>
</tbody>
</table>

approximately 2500 new patients seen each year, the proportion of opiate dependent subjects had declined from 72 per cent (1989) to 43 per cent (1994) and the proportion of subjects with multi-drug dependence had increased marginally (Report, Drug Dependence Treatment Centre, AIIMS, 1996). Further, subjects with heroin dependence had declined, with a corresponding rise in subjects with buprenorphine dependence. These were further confirmed by laboratory data, i.e. drug abuse screening. Between 1989 and 1995, from a total of 15,000 urine samples screened, a majority (70-80 per cent) were positive for heroin (morphine) till 1992. From 1993, 20 per cent tested positive for benzodiazepines, 17 per cent for buprenorphine and 50 per cent for heroin (morphine). Thus, changing pattern of drug abuse, from both clinical history and laboratory data (thin layer chromatography), was evident. Finally, multiple drug use (concurrent) was the norm, rather than single drug use as seen in earlier years (Jain, 1997).

Drug Abuse Monitoring System, 1989-91: This project was carried out in three cities (Delhi, Jodhpur, Lucknow) on behalf of the Ministry of Health and Family Welfare, and was sponsored by ICMR. Data was collected on a pre-coded proforma with 32 items on all new subjects reporting for treatment in various treatment centres in the three cities. Altogether 33 agencies (GO = 24, NGO = 9) participated. The data generated the profile of drug users, their drug use history, drug related problems and treatment history over three consecutive years, 1989-91. A manual and training video were developed and a training workshop was held before initiation of the project. During the implementation phase quarterly meetings were held to discuss and review progress and coding difficulties experienced by any of the participating agencies. This project was a prelude to the development of a nation-wide drug abuse reporting system (case reporting) and the main objective was to demonstrate the feasibility of such a system through a pilot study. (See table 6)

The consolidated report of data, spanning three years, from participating agencies from these three cities showed that:

- a total of 10,321 patients (new patients only) were reported.
- primary drug was:
  a) opiates among 42-80 per cent
  b) alcohol among 15-35 per cent
  (primary drug: drug of abuse for which help was sought).
- between 44-73 per cent did not report any secondary drug use (secondary drug: any additional drug of abuse for which help was requested).
- commonest secondary drug reported was tobacco (17-69 per cent).
- regional variations were also seen. Primary drug of abuse was heroin (61-73 per cent) in Delhi, while it was raw opium in Jodhpur (Rajasthan) among 33-68 per cent of subjects.
- subjects reporting other drugs of abuse like barbiturate, cocaine, hallucinogens and PCP were almost non-existent (1-9 subjects) over these three years.
- the patients were overwhelmingly male (97-99 per cent), about 60 per cent were in the age group of 21-30 years, 62-68 per cent were married, 23-27 per cent were illiterate, and 3-29 per cent were unemployed (currently) at the time of reporting (0.1-0.2 per cent were students).
- between 73-79 per cent had no prior treatment contact and 83-88 per cent did not report any arrests due to drug abuse.
- about 65 per cent were initiated to drug use between the age of 15-25 years and for 60 per cent of the subjects, by the time they were seen in these treatment centres, drug use had continued for 5 years or more.
- 0.7-2.7 per cent were intravenous drug users.

<table>
<thead>
<tr>
<th>TABLE 6: Drug Abuse Monitoring System (DAMS) (Three cities, 1989-91)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total number of subjects reported</strong></td>
</tr>
<tr>
<td><strong>Agencies participated</strong></td>
</tr>
<tr>
<td><strong>PRIMARY DRUGS</strong></td>
</tr>
<tr>
<td>Opiates</td>
</tr>
<tr>
<td>Alcohol</td>
</tr>
<tr>
<td><strong>SECONDARY DRUGS</strong></td>
</tr>
<tr>
<td>None</td>
</tr>
<tr>
<td><strong>PROFILE OF PATIENTS REPORTED</strong></td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Age (21-30 Yrs)</td>
</tr>
<tr>
<td>Married</td>
</tr>
<tr>
<td>Illiterate</td>
</tr>
<tr>
<td>Unemployed</td>
</tr>
<tr>
<td>Students</td>
</tr>
<tr>
<td>I.V. Drug Use</td>
</tr>
<tr>
<td>Age of first drug use (15-25 Yrs)</td>
</tr>
<tr>
<td>Duration of use (5yrs or more)</td>
</tr>
</tbody>
</table>

Source: Mohan et al., Collaborative study on Narcotic Drugs and Psychotropic Substances, Project Report, Sponsored by ICMR, 1993.
II: Current Extent and Pattern of Drug Abuse

33-64 per cent reported severe dysfunction (self report) due to drug use and felt that they required treatment.

A computer programme was developed to identify possible duplicates in each city, i.e. subjects who had been reported from more than one participating agency in a city. For such a purpose, name (first letter of first name, middle name and surname), age, sex, postal pin code (residence) and primary drug of abuse were recorded; 1-5 per cent of subjects were shown as duplicates by the programme in a city.

Items for this study were chosen from Client Oriented Data Acquisition Process (CODAP), USA, and Case Registry, Hong Kong, and suitably modified to suit local needs. The project demonstrated that it was possible to establish drug abuse monitoring systems (DAMS) for various cities. And those who participated (participation was voluntary as it was a research project), did so without any additional staff. The items of the DAMS were well incorporated into routine clinical workup. Subsequently, after successful completion of the project the Ministry of Health and Family Welfare, Govt. of India, initiated a fresh proposal to establish such a system for all the government treatment centres in the country. The proforma has been further condensed into 9 items (core data) for country-wise monitoring. This will be possible through the available networking (satellite hook up) of all district headquarters in the country under the aegis of National Informatics Centre (NIC - NICNET). It should be possible to make this operational from April 1998 (financial Year 1998-99).

Figure 3 attempts to draw a composite picture of current (past one month) use pattern, as found in various surveys, and percentage of persons with various drugs of abuse as seen in treatment centres in the corresponding period (1989-93). It can be seen that alcohol is the most common drug reported in surveys, as is the case with subjects in the NGO Sector. However, patients with opiate dependence are much higher in GO treatment centres as against subjects with other drug of abuse. Although subjects with cannabis abuse show up in surveys they do not report to treatment centres. It can also be seen that there is some difference in patients’ profile as regards their primary drug of abuse, as seen in GO vs. NGO centres.

C. Study in 33 cities

In 1989 the Ministry of Welfare carried out a study in 33 cities to ascertain the nature and extent of drug abuse. For each city two samples were drawn; from addicts and informed persons. The first group was identified from official records of the Police, jails, and welfare agencies; the second group comprised police officers, lawyers, chemists, teachers, journalists and community leaders. The report showed that:

- drug addiction was prevalent in varying degrees among all religious and caste groups. Most drug abusers were male and literate, and the age group of 16-35 years was worst affected.
- a significant number of abusers came from the lower strata. Differences in marital status or living alone did not seem to contribute to drug use.
- most (individuals, family members) were well aware of ill-effects of drug abuse.
- many informed persons felt that drug abuse was on the increase.
- commonly abused drugs were cannabis and heroin.
- there were regional variations in drug use. Opium and
cannabis were the main drugs abused in rural areas, whereas heroin was used mostly in urban areas and north-eastern States.

- large numbers of addicts had utilized treatment services.
- there has been a rapid growth of drug users in industrial areas.
- nearly one fourth of the respondents had used heroin and 14 per cent had used raw opium. In various NGOs, opiate addicts were 37 per cent of single drug users.

Further, the country profile provided by the Ministry of Welfare, Government of India, showed that mean age of initiation to heroin was 14 years. Reports of initiation of drug abuse by age 10 were also available. Based on these reports, the Ministry projected the number of drug abusers in the country to be 2.25 million (Country Report, India, Ministry of Welfare, Govt. of India).

D. Registered Opium Addicts

As per the report of the Narcotics Commissioner, India (1997 - personal communication), as many as 6 states have registered opium addicts. The numbers declined slightly to 10,752 (1996), from 14,993 (1992), and appreciably from 87,945 in 1970. Only a few fresh licenses were issued in this period. However, the policy for licit supply/sale varies from state to state in the country and the decision to issue a permit to a subject is taken by the State government. Based upon the required need, the Office of the Central Bureau of Narcotics releases the total quantity of opium to the different State agencies for distribution through the licensed outlets (annexures 9-11). Reports of heroin users switching to opium eating has not been documented. Nor are there reports of diversion of licit opium to the illicit market. However, over the years the State governments have become stringent and opium users (rural, old) often find it difficult to obtain their quota. Thus these subjects either report for treatment or change to using other licit substances, mostly alcohol. (See annexure-8 and figure 4)

Summarizing, it is clear that no national survey (using a national probability sample), resembling the National Household Surveys of USA, has been carried out, nor has there been any Rapid Assessment Survey as carried out in Bangladesh and Nepal. Inspite of this, a large number of studies, both epidemiological and from

![FIGURE 4: Number of Registered Opium Addicts, India, Over Two Decades 1970-96](source: Narcotics Commissioner, India, 1997, and Drug Addition Committee, 1977.)
treatment centres, have been carried out and the data upto 1993 is rigorous.

Since 1995-96, epidemiological surveys at 7 districts in various parts of the country have been initiated with support from the Ministry of Health and Family Welfare, Government of India, and WHO. However, these are ongoing and the results are expected in mid-1998. Published information for the later period (1994 and beyond) can be seen in reports of several small studies published in research journals. These studies point towards a continuing pattern of rural opium use, abuse of codeine based cough syrups in one particular State (Assam), and abuse of psychotropics particularly buprenorphine in north and south India. Case reports of glue sniffing, boot polish abuse and even consumption of ‘Iodex’ (analgesic ointment) have been published. Service providers working on drug demand reduction have reported drug abuse among women, commercial sex workers and marginalized population like street children (Box Item-5).

Annual Field Report (ROSA, 1997) and Country Report, India, Ministry of Welfare, showed that for the period April to September, 1996, 1,25,170 drug addicts were registered in various centres supported by the Ministry of Welfare, Government of India. Among them 42 per cent were using alcohol, 20 per cent opium, 6.2 per cent and 13 per cent cannabis and heroin respectively, and 18 per cent were using other drugs. There have been reports of increase in abuse of prescription medicines like buprenorphine, morphine, pethidine, propoxphene, nitrazepam and diazepam. This has been attributed to availability of these drugs at low prices and without prescription. Adulterated heroin (smack) abuse has gone up. It was estimated that about 40,000 heroin abusers existed in the country. They were typically from urban areas, predominantly young males between 20-39 years. Drug users were mostly unmarried, from lower socio-economic strata, and self employed. Quite a few (about 33 per cent) were engaged in anti-social activities. Most had been using heroin for 5 years and inhalation (chasing) was the most common route of administration. (A typical case history is depicted in Box Item-4.) Barring N.E. States, few injected heroin. Traditional use of opium continues in the States of Punjab, Rajasthan, Madhya Pradesh, Uttar Pradesh and Gujarat.

Dependence on psychotropic substances is of very recent origin. Most of these substances are medicinal compounds that are controlled, and obtained through the illicit market.

Abuse of volatile solvents, cocaine and LSD is not prevalent.

COUNTRY : MALDIVES

Maldives was virtually free of all addictive substances till the early 1990s. The first case of drug abuse was reported around 1994, and it was believed that drugs were introduced by tourists. Subsequently, cannabis use (marijuana and hashish) was noted among tourists. Common drugs of abuse reported since then are hashish oil and heroin (brown sugar). Cocaine was seized in the country; it was, however, believed that the substance was meant for transhipment rather than local use (Country Report, 1996 Workshop on Drug Abuse Control, Colombo).

However, increasing incidence of drug abuse by Maldivian youth has been reported and it was estimated that several hundred drug abusers existed in Male itself. It was not clear whether they were occasional, recreational or regular users. It was also felt that students returning from their studies abroad were more liberal in attitude, and used drugs for recreational purposes since there was a lack of metropolitan entertainment. Besides cannabis, use of benzodiazepines was also reported (Country Report, SAARC Symposium on Prevention of Drug Abuse Among Youth, 1992, Dhaka). Among drug users, a high percentage were 15-25 years of age, and use among school children below the age of 12 had also been noted (Country Report, Maldives, SAARC Workshop on Relapse Prevention, 1997).

Annual Field Reports, ROSA (1996, 1997) noted that drug abuse was not a major problem and cannabis (hashish oil and marijuana) were abused by a small segment of the population and mainly tourists.

COUNTRY : NEPAL

Drug abuse has a long history in Nepal and consumption of cannabis products including hashish during religious ceremonies is common, accepted and tolerated. Until recently, consumption of cannabis did not cause much concern and even licit cultivation through government licenses was allowed (Master Plan, vol 1). Nepal noticed the problem of drug abuse in the early 1970s with the influx of ‘Hippies’. Many cannabis users shifted to heroin use.

The first case of heroin abuse was reported in 1976 and by 1985, it was estimated that there were 12,000 addicts in Kathmandu valley. About 4 per cent were students. Since then, experts have felt that drug abuse is on the rise. In 1992 it was felt that the majority of drug users were concentrated in Kathmandu and Pokhara valley. The majority of drug addicts were males and most (90 per cent) were
16-30 years old, and about 2.3 per cent were females. Small surveys and data from treatment centres indicated that addicts came from varying backgrounds and there were also regional variations. For example, in Pokhara most addicts were transport workers, while in Kathmandu they came from lower middle class backgrounds with low levels of literacy. Since the Government was concerned about drug abuse, it increased law enforcement activity. As a result, heroin (brown sugar) became largely unavailable and these subjects switched to the use of alcohol, tranquilizers (non-prescription) and codeine based cough syrups. Addicts become poly-drug users. A small percentage of i.v. heroin users existed. Most of the data is however, impressionistic.

Since the 1980s, many small scale surveys have been conducted. These surveys provided cross-sectional analysis of the drug abuse situation in specific areas. It was noted that common drugs of abuse were heroin, codeine containing cough mixture and cannabis, although cannabis was not generally perceived as a drug of abuse. In 1996, it was estimated that about 40,000 - 50,000 dependent users existed in the country (Country Report, Nepal). Few were using the more potent variety, i.e. white powder. Heroin users were young adults (mean age 25.5 years), mostly male, and had a low level of education. However, many were employed. In a paper presented in the workshop ‘Expert Forum on Demand Reduction in South and South West Asia, New Delhi’ (1995), the authors proposed that there were two types of drug abuse in Nepal. Type 1 represented youth and the middle age group, often married, seen both in urban and rural areas and used traditional drugs, i.e. mostly cannabis, raw opium and alcohol. The other, type 2, were mostly unmarried young adults from urban areas, and used heroin, psychotropics and cough mixtures. The subjects from type 1 were well adjusted, had low criminal activity and were perceived to be harmless. The other group was maladjusted, often engaged in criminal activity, and were considered threatening. Certain regional variations were also seen. By the mid 1990s, 20-30 per cent heroin users used heroin regularly and intravenously. Along with it, buprenorphine, pentazocine and pethidine were also injected (table 7).

For more precise information on the extent and magnitude of the problem a Rapid Assessment Survey (RAS), as carried out in Bangladesh, was planned. Further studies on women drug users, street children were already ongoing in 1996. The report of the RAS on the drug abuse situation in Nepal was available in December 1996. The study used multiple indicators and data from primary and secondary sources to accomplish the task. Both qualitative and quantitative indices are available. The study team chose five developmental regions and eight municipalities to collect information. In the absence of knowledge of the “universe” of drug abusers in Nepal, a non-probability sampling frame was used. Drug using subjects and their families were identified through the snow-ball technique. Information was obtained from a total of 756 persons comprising nine population sub-groups. Out of these, experts and professionals (doctors, nurses, government officials, prison officials) numbered one hundred and twenty. Total number of drug users interviewed were 573, both in and out of treatment. Thirty-two family members of drug users were interviewed and the remaining 31 were prison inmates.

**TABLE 7: Nepal, Drug Use Pattern - 1980s to early 1990**

<table>
<thead>
<tr>
<th>Type I</th>
<th>Type 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Youth and middle aged</td>
<td>Young adults</td>
</tr>
<tr>
<td>Often married</td>
<td>Mostly unmarried</td>
</tr>
<tr>
<td>Rural and urban areas</td>
<td>Urban areas</td>
</tr>
<tr>
<td>Well adjusted</td>
<td>Maladjusted</td>
</tr>
<tr>
<td>Low criminal involvement</td>
<td>High criminal involvement</td>
</tr>
<tr>
<td>Drugs of choice: cannabis, raw opium and alcohol</td>
<td>Drugs of choice : heroin, psychotropics, codeine based cough syrups</td>
</tr>
<tr>
<td>Perceived to be harmless</td>
<td>Perceived to be threatening</td>
</tr>
</tbody>
</table>

**NEPAL - RAS 1996 (sample distribution)**

- Drug users: 573
- Experts, professionals, and Government officers: 120
- Family members of drug users: 32
- Prison inmates: 31
- Total: 756

Instruments and modalities of information collection were variable. Structured questionnaires were used to obtain quantifiable data from drug users from various settings. Additionally, in-depth interviews, focus group discussions, ethnographic observations and informal discussions were carried out.

Data has been described for 520 drug abusers and the major findings are listed below:

- The majority (93 per cent) were within the age group of 16-30 years, and most (98 per cent) were males. Various castes were represented and no caste/ethnic group was found to be protected from drug abuse. About 70 per cent were married. About 30 per cent
had education up to the secondary level, only 1 per cent were illiterate and 3 per cent were graduates. Among them, 186 (36 per cent) were currently unemployed. About 20 per cent and 16 per cent were students and businessmen respectively. People engaged as tourist guides or hotel workers (total 16 per cent) were also drug users. Around 90 per cent lived with their families and among those who were married as many as 87 per cent lived with their spouses. There were some regional differences viz. a higher age group of abusers was more often observed in the far-western division, whereas the eastern developmental region saw more abusers who had passed SSC (10 years of school).

- Alcohol, cannabis and codeine based cough syrups were the three commonly used substances (between 88.7-89.2 per cent each), followed by nitrazepam (79.4 per cent), diazepam (49.7 per cent), buprenorphine (46.8 per cent) and heroin (45.3 per cent). A small percentage reported use of raw opium, LSD or other psychotropics. Many were multi-drug users. Heroin and buprenorphine abuse were more often reported from the central region. Codeine containing syrups were reported more from eastern and western regions (table 8).

- About 36 per cent reported that they had been using drug for 3-5 years, and 22 per cent each for 0-2 years and 6-8 years.

- Current use (last one month, table 9 and figure 5) pattern among lifetime users of various drug categories showed that 78 per cent and 82 per cent of lifetime cannabis and nitrazepam users respectively were current users. Among opioid users, 72 per cent of

### Table 8: Nepal, Self Report of Ever Use (in per cent) (N = 520)

<table>
<thead>
<tr>
<th>Drug Type</th>
<th>Ever Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>89.2</td>
</tr>
<tr>
<td>Codeine (cough syrups)</td>
<td>88.7</td>
</tr>
<tr>
<td>Cannabis</td>
<td>87.7</td>
</tr>
<tr>
<td>Nitrazepam</td>
<td>79.4</td>
</tr>
<tr>
<td>Diazepam</td>
<td>49.7</td>
</tr>
<tr>
<td>Buprenorphine</td>
<td>46.8</td>
</tr>
<tr>
<td>Heroin</td>
<td>45.3</td>
</tr>
<tr>
<td>Opium</td>
<td>10.2</td>
</tr>
<tr>
<td>Others (Pentazocine, Pethidine, Promethazine, etc.)</td>
<td>46.6</td>
</tr>
</tbody>
</table>

Source: RAS 1996, Nepal

### Table 9: Nepal, Current Use Pattern (last one month) Among Lifetime Users (per cent) (N = 520)

<table>
<thead>
<tr>
<th>Drug Type</th>
<th>Last Month Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Codeine containing cough syrups</td>
<td>72</td>
</tr>
<tr>
<td>Cannabis</td>
<td>78</td>
</tr>
<tr>
<td>Nitrazepam</td>
<td>82</td>
</tr>
<tr>
<td>Diazepam</td>
<td>61</td>
</tr>
<tr>
<td>Buprenorphine</td>
<td>83</td>
</tr>
<tr>
<td>Heroin</td>
<td>40</td>
</tr>
<tr>
<td>Opium</td>
<td>6</td>
</tr>
</tbody>
</table>

Source: RAS 1996, Nepal

**FIGURE 5: Current Use Pattern (per cent) Among Lifetime Users for Various Drugs, Nepal (N = 520)**

![Image of Figure 5](source: RAS 1996, Nepal)
lifetime codeine users, 83 per cent of buprenorphine users, 40 per cent of heroin users and 6 per cent of opium users were current users. Between 61-82 per cent of life benzodiazepine users were current users. Further, frequency of abuse followed among current (last one month) users was highest for buprenorphine users (41.1 ± 42.3) followed by ganja (24.4 ± 32.2), heroin (24.0 ± 20.9), codeine (14.4 ± 11.0). It was seen that there was wide variation in number of times drug used in last one month; SD was often higher than the mean. However, buprenorphine was most frequently used (figure 6).

A key community informant reported that “within their circle (drug injectors) they share everything (injection paraphernalia) commonly”. About 50 per cent of IDUs had visited the centre established for a needle exchange programme (more details in chapter VIII).

**NEPAL: INJECTING DRUG USE (RAS)**

- Lifetime use - 40 per cent
- Among IDUs, commonest drug - Buprenorphine
- Initiation between 16-20 yrs - 49 per cent
- Syringe/needle sharing - 52 per cent
- Reuse of injecting equipment - 62 per cent
- Commonest cleaning method : cold water - 81 per cent

- Quite a few family members of these subjects (drug users) were users of addictive substances themselves. Between 77-84 per cent reported that at least one of the family members were using alcohol and 5-12 per cent reported family members using cannabis and other illicit compounds. The percentage of subjects reporting at least one close relative using drugs and alcohol was even higher. The proportion of abusers having at least one drug using friend was alarmingly high: for alcohol 93-99 per cent, and for cannabis or any other illicit substance 98-100 per cent. Thus the subjects in this study usually remained in the close company of other drug using persons. They could be family members, close relatives or close friends. Majority (69 per cent) started drug use due to peer influence. Initiation and continuation of drug use took place in familiar situations and within the peer network.

- Most often cannabis was the first illicit drug of abuse (56 per cent); for 8 per cent heroin was the first drug used.

- Of the total 520 drug users, the majority (77.9 per cent) reported that they got their drugs from their drug using friends, followed by 57.5 per cent from markets across the Indian border, 38.7 per cent from medical shops, and about 29 per cent from unknown drug sellers. About 35-39 per cent spent upto 500 Nepalese rupees per month on their drug consumption. About 48 per cent supported their habit themselves, mostly through legal earnings.

Only 10.2 per cent of the respondents reported that they had used a substitute drug when the primary drug was not available. In other words, loyalty to drug type was very high.

About 40 per cent had injected drugs at least once in their lifetime. The central region had the highest proportion of injecting drug users (IDUs). Among IDUs, 66 per cent and 20 per cent used buprenorphine and heroin respectively. About 49 per cent had started injecting at the age of 16-20 years, followed by 21-24 years (34 per cent). About 52 per cent had shared syringes/needles with others and unavailability of syringe/needle was the main reason for sharing. Needle/syringe reuse was quite common (62 per cent). Several measures were used to clean a needle/syringe. The most common practice was the use of cold water (81 per cent), followed by hot water (45 per cent), and saliva (29 per cent). Only 19 per cent reported that they boiled their syringe/needle. Very few reported the use of spirit and bleach.

Among IDUs, 27 per cent reported that they had injected 2-3 times/day in the last six months, 17 per cent about once/day and 14 per cent more than three times/day.

**FIGURE 6: Frequency of Abuse Among Current Users (last one month), Nepal (Mean & SD)**

Source: RAS1996, Nepal
Data from treatment centres showed that 79-88 per cent of registered patients were dependent on heroin (brown sugar), 9 per cent on cannabis and 6 per cent on psychotropics.

**NEPAL: DRUG USE AND PEER INFLUENCE (RAS)**

Close drug using friends 98-100 per cent

Majority (78 per cent) got their drugs from friends

About 40 per cent bought from unknown persons

Every drug user had about 7 drug using peers

Drug use mostly in familiar situations and within peer group

Finally, most of the drug abusers and key community informants reported that drugs were easily available. Of the total drug users having drug abusing friends, many (50 per cent) reported that they had 1-5 friends who used illicit drugs. On an average, every drug user had about 7 friends using illicit drugs.

**COUNTRY: SRI LANKA**

Sri Lanka also has a long history of drug use. Traditionally, cannabis (ganja), opium and alcohol have been used. Cannabis and opium were often part of medicinal preparations and abuse was limited to some individuals who attracted social disapproval.

Current epidemiological data pertaining to prevalence and characteristics of drug users were obtained from persons in treatment. The data is available as a part of a Drug Abuse Monitoring System. No large scale surveys or Rapid Assessment Surveys have been conducted yet. Commonly abused substances are alcohol (0.5 per cent - dependent users), cannabis and heroin (Country Profile, Sri Lanka).

The National Master Plan (1993) for drug control in Sri Lanka noted that abuse of ganja had escalated and created a substantial problem. It was estimated that there were 2,00,000 cannabis abusers in the country. On the other hand, incidence of opium abuse had declined.

Abuse of heroin was unknown in Sri Lanka till 1981. The introduction of heroin use to Sri Lanka was initially through the ‘Hippie’ tourists and the Sri Lankan youth was mainly at risk. It is currently estimated that there are about 40,000 heroin abusers in the country (Country Profile, Sri Lanka).

**SRI LANKA**

Heroin abuse:

- Heroin abuse since 1981
- Current estimate - 40,000 heroin abusers
- Mostly young male, 20-29 years
- Inhalation the most common route
- Most initiated between 15-24 years

Analysis of characteristics of 936 heroin users (1990) revealed that 97 per cent were male, 70 per cent were between 20-28 years old and 19 per cent were 30-39 years old. About 24 per cent were in prison, 39 per cent were self-employed and about 21 per cent were employed. Most (70 per cent) were initiated to heroin between 15-24 years of age.

**SRI LANKA**

Other drugs abused:

- Cannabis abusers - 2,00,000
- Few opium users
- Some reports of abuse of psychotropics
- Abuse of volatile solvents, cocaine and LSD not prevalent

**REGIONAL SCENE**

Asian countries notably India and Nepal are producer countries for opium (licit cultivation) and cannabis (illicit production). Traditionally these producer countries transported these compounds to consumer countries elsewhere in the world, mostly developed western nations. However, lately (since the 1980s) these countries have also become consumer countries abusing not only plant products but also semi-synthetic compounds developed from these plant products. More recently abuse of synthetic pharmaceutical products has also become popular. This has been possible through a lax system of enforcement or illicit diversion to the black market of medicinal compounds with scope for abuse.
The extent and magnitude of this problem can be gauged from a number of sources: a) official reports (responses by respective governments - summarized here as Country Profiles, see Annexures), b) survey/research data, and c) data from persons seeking treatment. It is evident from this review that there are substantial gaps in knowledge of the precise nature and extent of the problem. Though a few methodologically sound surveys have been carried out, pertinent questions regarding incidence (new subjects being initiated to drug abuse) exact prevalence (current or lifetime use) and frequency of consumption still remain unanswered. Reliable national statistics are not available. Thus the actual number of persons involved are not known and available figures are only crude estimates. An attempt has been made to project these from the country reports supplied by the respective governments. This is shown in Table 10. As drug use appears to be mostly a male phenomenon, eligible drug users, i.e. males above the age of 16 years, are shown separately.

The most worrying trend has been the increasing use of injectible drugs and the figures vary from 1-2 per cent of adult males from the general population in the N.E. States of India to 0.5 per cent in Bangladesh. In treatment centres upto 40 per cent reported i.v. drug use at least once in their lifetime (Nepal). Needle sharing among IDUs is quite common. Though case studies of i.v. drug users, both heroin and non-heroin, have been provided (Box Items-1, 2), no specific profile of IDUs emerges from various reports, as is available for other parts of the world. Additionally, no precise estimates are also available (absolute number) as regards IDUs per 1,00,000 population. However, the case histories and other reports do suggest that the following factors promote injectible drug use:

- heroin is injected if high quality heroin is available, as in Manipur, India
- injectible route is preferred for quick ‘high’ with lesser quantity of the drug and to cut down expenses on drugs
- injectible drugs being used for medication, i.e. progression from medical use to self medication to abuse
- if pharmaceutical drugs are available without valid prescription easily and are relatively inexpensive
- injecting drug use as a fashion

The World Drug Report (1997) suggested other factors like “drug tourism” whereby drug users travel and spread the message which can lead to increase of injecting drug use. Finally, the sharing of injecting equipment by IDUs enhances the risk of becoming infected with infectious diseases including HIV. These issues are discussed in chapter IV.

None of the studies have answered questions regarding various factors promoting drug use. Some studies have attempted to look for various associated (though not causal) factors. Peer group influence has been quoted most often. It can also be postulated that over the years traditional family ties have disintegrated and parents have eased out of their supervisory roles. Hence friends influence each other more.

Still, from the data under review certain general conclusions can be drawn.

- Other than alcohol, opiates and cannabis are the major drugs of abuse in all the countries except probably Bhutan. A more potent variety of cannabis (hashish oil) is abused in Maldives.
- Some of these countries viz. Nepal, India and Sri Lanka have histories of traditional use of narcotics, and abuse of opium and cannabis have some degree of social acceptance and are not considered a major problem.
- However, abuse of heroin and psychotropics is clearly perceived as cause for concern.

<table>
<thead>
<tr>
<th>Country</th>
<th>Total Population</th>
<th>Total Male Population above 16 years</th>
<th>Estimated Number of Addicts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>120</td>
<td>37.7</td>
<td>0.5-1.0</td>
</tr>
<tr>
<td>India</td>
<td>944</td>
<td>311.7</td>
<td>2.25</td>
</tr>
<tr>
<td>Nepal</td>
<td>22</td>
<td>6.24</td>
<td>0.014-0.05</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>18</td>
<td>5.9</td>
<td>0.2(Cannabis) 0.04(Heroin)</td>
</tr>
</tbody>
</table>

Source: Country profiles
Abuse of psychotropics viz. benzodiazepines, buprenorphine, codeine based cough linctus, is a recent phenomenon and is escalating.

There is also evidence that poly-drug use is more often seen now as per reports from surveys and treatment centres.

There are also reports suggesting that injecting drug use is on the rise particularly abuse of buprenorphine, diazepam, promethazine, pheniramine (antihistamines).

Drug abuse is mostly seen among males and a major portion of dependent individuals are from socio-economically weaker sections.

Case reports and certain studies do suggest abuse of drugs by younger population especially among the underprivileged (street children).

In treatment centres most are in the age group of 15-30 years.

Several health hazards due to injecting drug use have increased.

Though many have sought treatment, quite a few have yet to report to any formal treatment centres.

Epidemiological studies based on a national probability sample are methodologically sound and may provide more precise information on actual number of drug users. However, these are very expensive, as often the base rate of several drugs (viz. opiates) is below 1 per cent. In such a situation monitoring of data from treatment centres yields quick, valid, reliable and cost-effective estimates.
RESOURCE DOCUMENTS

BANGLADESH


BHUTAN


INDIA


MALDIVES


NEPAL


**Sri Lanka**


India probably has the largest number of street children. There are problems in trying to estimate the magnitude of the problem as their population cannot be adequately covered by the national census and they are also not normally reflected in the educational and health statistics. Situation analysis conducted by UNICEF in collaboration with the Ministry of Welfare, Government of India, has estimated that there are anywhere between 4,25,000 and 4,74,000 street children in 10 select cities. Economic pressures coupled with abuse and neglect make these children leave their homes and move to big cities. 

Rag-picking, shoe shining, working in shops and wayside restaurants and vending are some of their strategies for survival. They work very hard and for long hours, and are often involved in “honest” work. Sometimes when avenues for an honest living are not available they get into pick-pocketing and at times get pushed into prostitution. Living on streets without adult protection and guidance makes them vulnerable to the risk of drug and sexual abuse, which further exposes them to the greater risk of contracting HIV/AIDS.

Street children have always been vulnerable to sexual exploitation but now their bodies and minds are further ravaged by another menace, i.e. drugs. Most often children fall victim to drugs under peer pressure. These children go through stress, violence and pain everyday - of being treated unfairly by the law enforcement agencies, juvenile and criminal justice systems and street peers. Drugs help them to erase the pain and escape realities, at least temporarily. It also helps to numb hunger pangs when food is not available to satisfy their hunger.

Common drugs used by children are tobacco (in different combinations), crude alcohol, “brown sugar”, cannabis, gasoline, glue, paint thinner and kerosene (sniffing). Sedatives and codeine based cough syrups are also popular. Most are multi-drug users. Use of i.v. drugs is not very common among young street children of Delhi. Boys are more likely to be regular smokers and most smokers have multiple addictions. Chewable tobacco is quite popular among girls. Other addictions such as cannabis, alcohol and brown sugar are not very common among girls. Street children as young as six years old become drug dependent. They start with tobacco and by the time they are 8-10 years they graduate to the use of alcohol, charas (cannabis), glue sniffing, etc.

A study on the “Phenomenon of Substance Abuse and Sexually Transmitted Diseases among Street Children” has recently been carried out in Delhi, by Butterflies (Delhi based NGO). One hundred children between the ages of 6 to 16 years participated in this study.

The study found that 75 per cent of the children interviewed consumed alcohol on a regular basis; about 25 per cent daily. Undistilled crude alcohol is easily available at several places and children do not have any problem buying it despite their young age. It is available in polythene packets costing Rs. 10 to Rs. 15. The local code name for it is “thaillee” (packet). Children also revealed that a certain temple distributed different local brands of alcohol to its devotees on Sundays as holy offerings. Children throng this temple on Sundays to get a free peg of alcohol. Some children make a fast buck by taking extra pints and selling it to other children and adults as well.

About 50 per cent of the children interviewed have experimented with charas (resin of cannabis). Although it is easily available the drug peddler sells it only to those whom he knows. Old customers are required to introduce new ones. Persons in neat and clean clothes are generally regarded with suspicion and avoided. Interviewees said drugs are available at several places near the railway station; a theatre, a temple and even within the premises of the railway station. Charas of about a cigarette’s size costs Rs. 150 (about US $ 4). But half a cigarette length (approx.) is available at a much cheaper price.

HEROIN ADDICTION

Heroin addiction is not very prevalent among children and only about 10 per cent of the children reported having used it at least once (mostly inhaled). Most of them are addicted to it and suffer from withdrawal symptoms in case the drug is not available. Therefore, if they run short of money for their daily dose of heroin, they may indulge in thefts and other anti-social activities. Children could not tell us the specific places where it is available and said that persons selling “smack” are on the move constantly and can be identified by addicts only. An amount (less than a pinch) is available for Rs. 25. This amount is sufficient for their daily quota.
Intravenous drug abuse is not unknown among children. Only older children and adults have used i.v. drugs. Children could demonstrate and describe in detail the way a drug is injected intravenously right from breaking the ampoule, to loading it in the syringe, finding a vein, pricking it, drawing blood to confirm the needle is in the vein, and then injecting it. Needle sharing was common among them.

**Girl Street Children**
The life of a street girl is even more difficult; she is more vulnerable than a boy because of her gender. Her life on the street is twice more oppressive and exploitative than that of a boy. Girl children as young as nine and ten are forced into consuming drugs, and when the child is intoxicated she is sexually abused. In other circumstances, the girl child takes drugs to forget the pain of being sexually abused. The whole situation is like a web in which the poor girl is the victim who ends up scarred and traumatized for life. Girl children are also used as couriers by drug peddlers because they are rarely suspected or bodily searched by cops on the streets.

**Drug Demand and Sexual Abuse of Street Children**
Street children have always been vulnerable to sexual exploitation. There is a close relationship between the problems of living on streets and the use of drugs, and their low prices are part of the reasons for the increase in children taking to drugs. Sleeping in open spaces not only exposes them to harsh weather but also makes them prone to sexual assaults by paedophiles. No place is safe for them. Most boys are involved in both homosexual and heterosexual behaviour irrespective of their preferences, completely depending on availability. Both boys and girls often take drugs to forget the pain, trauma and humiliation of being sexually abused.

Findings of the research study conducted by Butterflies revealed that a large number of children had genital lesions, suggestions of secondary syphilis and one out of every ten children tested positive on a VDRL test. HbsAg positive is also quite prevalent among street children. Sadly, no children undergo medical treatment for these diseases; instead, they adhere to their street remedies. Street children who are drug users get a very low priority at health clinics and hospitals.

We have also come across a disturbing phenomenon wherein children who are habitual gamblers are lent money by adults, and when they cannot repay the amount are forced to have sex with the moneylender in lieu of repayment.

Street children rarely have access to health care facilities in the cities. Access to health related information, counselling and de-addiction is practically nil. Whenever children are referred to specialist agencies for treatment, they are treated as “mini-adults” rather than children with special needs. The negative image of drug users discourages health workers and street educators from developing special skills to deal with this problem.

Given the scarcity of resources in most developing countries, drug using street children get a very low priority. The problem is viewed as something to be dealt with by law enforcement authorities and the police. Moreover, there is a total lack of preventive interventions for street children as they are completely cut off from school systems and community programmes which are the general vehicles for such intervention. Almost all actions are focussed on adolescents, youth and adults, and not on children.

**Key Issues for Consideration**
- Vulnerability of street children in being induced to taking and peddling drugs.
- Easy availability of drugs at affordable prices.
- Use of children by the drug mafia as couriers, to be expended with when placed in a sticky situation with the law.
- Growth of sex-tourism within the region, i.e. India, Sri Lanka and Nepal, involving beach boys of Sri Lanka and India and street children of Nepal.
- Poor access to health care facilities in the cities.
- Resistance of NGOs to taking up this issue seriously, because of lack of both sensitivity and capability to address these issues.
- Low priority given to street children who are drug users.
- Lack of preventive interventions for street children as they are completely cut off from school systems and community programmes.

**Suggestions to Address the Issue of Drug Demand Reduction Amongst Street Children**
- A holistic approach, sensitive to extreme vulnerability of street children, especially to health related problems.
- Incorporation of education on drugs in non-formal education as street children do not have access to school education and community services.
- Special attention to street children due to their general vulnerability; they need protection of night shelters and easy access to health clinics.
Sensitization of judiciary and police to look at children affected by drugs as victims rather than drug abusers and deviants.

Initiating and supporting NGOs in managing de-addiction treatment and rehabilitation services especially for children.

Empowering street children to be health workers among their peers.

Inducting street children into the organization as street educators for they are the most effective advocates.

Orientation programmes for health personnel in hospitals to handle children.

Municipal Corporation’s health services should include drug counselling and treatment services. No “special” services to be initiated in isolation as availing them would attach stigma.

Quite a few de-addiction health centres have fixed rules and admission criteria which exclude unaccompanied minors from receiving services. Since many of the children are below the “age of consent” and do not have parents or guardians, nor do they know a trusted adult who can accompany them for treatment, it is imperative that street children have some kind of documentation, perhaps an identity card, that will allow them access to health and counselling services.

Orientation for street educators of NGOs in skills in early detection, preventive education counselling and supportive rehabilitation measures. Need to develop training modules with communication materials, teaching aids and manuals for street educators.

Sensitization of teachers to better handle drug problems among children, as a common response is dismissal of the child from school rather than a sympathetic approach.

Incorporating this concern in community health programmes.

Education of parents, and generating community pressure, as quite often parents and the community condone such activities for the sake of money, especially in areas frequented by tourists.

Stricter legislation prohibiting dispensing of drugs to children without a prescription—a common practice among street children.

Finally, the need for more committed eradication of drug trafficking that involves mafia with powerful links with the political setup, administration and the police. The children are only the symptoms and not the cause, and are the visible links of a more serious malaise.

**Conclusion:** When we discuss the status of children in any developing country, it has to be with reference to the majority who are poor, disadvantaged and marginalized. Although they form the majority, these children, do not enjoy the benefits of their constitutional rights. Most of the countries have rights guaranteed to children in their Constitution but lack strong determination and the political will to enforce them.

It is a sad state of affairs that developmental and welfare programmes have not had any impact on poor, marginalized children, their families and communities. It is imperative then to take a critical look at current policies and programmes and seek out reasons as to why these have not had satisfactory results.

There is a need to create political will and generate a greater commitment in the bureaucracy so that development and welfare interventions are effectively focussed on target families and communities that need them the most.

I have often been accused of being emotional and over-reacting when it comes to the question of street children and their problems. I wonder how I can not be emotional when persons like me who work with street children are witnesses to their daily struggle to stay alive? To be confronted with the sight of swollen limbs and welts on the back of a ten year old due to the brutal beatings he got from the police on the street for being in possession of drugs, or of the child whose legs had been broken by the drug mafia for telling on them, or the sight of an eleven year old bleeding from sexual violence?

Every time we carry a child to the hospital or bury one that has just died..., to us they are not just sterile numbers or words written on a paper that tell the world of the magnitude of the problem. To us they are children; yours, mine and ours. They are products of an unjust society, victims of adult irresponsibility. Should our social conscience be so blunted that we continue to look at these children as expendable commodities?

* Based on a paper presented earlier at the Expert Forum on Demand Reduction in South and South West Asia, UNDCP, New Delhi, 1995.