

WHO Biennium Project (2006-2007)

REPORT

DRUG ABUSE MONITORING SYSTEM

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Dr Rajat Ray

1. Introduction:

Substance abuse has emerged as a global phenomenon that is influenced by a wide array of factors that span social, economic, political and psychosocial domains. The multiplicity of factors associated with drug abuse and their inter-relatedness makes the problem a complex one. The escalation of drug abuse over the last three to four decades, particularly among the adolescents and young people, has created major public health and socioeconomic problems and challenges. The development and delivery of effective and appropriate interventions in countries experiencing drug abuse problems are very much dependent on an understanding of trends, patterns of drug use and their relationships to health and social problems.

During the last few decades, drug scene in the country has changed at a very rapid pace. The changes are scene in terms of availability, choice of psycho-active substances, users and their socio-demographic characteristics. The changing drug scenario has its own implications on the socio-cultural fabric of the society, besides adverse public health problems (Sharma, 2005). These developments in the field of substance abuse call for a systematic monitoring to develop effective strategy on the part of health planners and policy makers. There have been a number of methods to assess drug abuse problem at national and regional levels and drug abuse monitoring system has emerged as one of the cost effective methods.

Treatment monitoring systems are one of the information sources in the field of drug epidemiology and demand reduction, which can give valuable information on the scale and characteristics of the drugs phenomenon as well as on measures taken against these problems. These data can be collected with limited financial effort within treatment services, as information on treated persons is available and collected also for treatment needs. Information can be rather complete, as experts such as social workers and therapists fill in the relevant questionnaires.

Drug Abuse Monitoring System has been implemented in different countries to develop data bases to plan treatment services for subjects with substance abuse disorder. These are useful in determining the broad trends and characteristics of dependent drug users whom come in contact with treatment agency(ies). The information collected helps in identification and describing the current groups at risk, the emerging risk groups and also efficacy of the existing efforts to treatment systems.

2. Drug Abuse Monitoring and Surveillance:

2.1: Global Experiences:

There has been a number of drug abuse monitoring program at global level. A few successful programs are cited below:

- (i) **Drug Abuse Warning Network (DAWN)** : Based on event reporting system, DAWN, a federal program in USA, was initiated in 1972. The monitoring system collects information through 'episode' reports on patients provided by

selected hospital emergency rooms, crisis centers and medical practitioners. The program obtained two types of data from these sources; adverse reaction to dependence producing drug use from emergency room in general hospitals and information on drug dependence related deaths from county medical examiners or county coroners. To be eligible for inclusion in DAWN, the emergency room must be open for 24 hours and should have at least 1000 patients visit in one year. The information emerging from the DAWN system has been used by Drug Enforcement Administration (DEA) for enforcement and scheduling its control activities. On the other hand, National Institute of Drug Abuse (NIDA) has used the same data for developing prevention, treatment and rehabilitation project. In spite of a few shortcomings, the feedback information is provided to health agencies throughout USA.

- (ii) **The Client Oriented Data Acquisition Process (CODAP)** is a case reporting system developed and used in USA and provide information, on clients seeking treatment to different agencies, their status at the time of discharge and their progress reports with treatment. Under the CODAP System, it is compulsory for all the treatment agencies funded by the Federal government for drug abuse treatment and rehabilitation services, to provide such data on each client admitted or discharged from the respective treatment agency. The information is recorded on standard CODAP forms, which can be computer analyzed. The advantage of CODAP monitoring system was that state and local level data were utilized to determine utilization of available treatment resources, to identify drug problems on continuous basis and the delivery of services to specific target groups.
- (iii) **The National Mental Health Programme, Indonesia:** The programme was established at national level and spreads over to 35 mental health institutions across the country. The information on all clients in treatment including alcohol and drug disorders was collected on a 10 page multiple-choice questionnaire. The programme helped the policy makers to monitor some of the dimensions of drug dependence disorders in the country, including emergence of heroin and morphine epidemics.
- (iv) In Malaysia, **the Anti-Narcotics Task force** in the Prime Minister's Department was made the repository of all national data and information pertaining to drug dependence disorder and abuse. Since the treatment and Rehabilitation of an addict was compulsory, the situation and trend was well monitored through this system. The information was collected from multiple sources (clinical settings, prisons, schools, government departments, including police and armed forces.)
- (v) **Case registers in UK:** Under the Dangerous Drugs Regulations 1968, all doctors were required to notify the Home Office of persons suspected of

addiction to certain narcotics and cocaine. These led to creation of Addicts index. It provided information on the characteristics of addicts and their clinic attendance leading to defining the dependent's profile cross-sectionally and changes over a period of time. Although created on a smaller scale, the data base has been able to report on estimates of numbers of users being seen by medical practitioners, psychiatrists and Drug Dependence Unit(s) and also information on drug users, even ID Use.

- (vi) **Central Registry of Drug Addicts (CRDA)** Hong Kong. In 1976, both government and non-government agencies participated and data was collected from 37000 addicts with in five years. The result was surprising as data showed that individually finally cured from opiate addiction shifted to licit addiction like alcohol. The outstanding feature of CRDA was sophisticated matching procedure by computers to avoid duplicate.

Regional Network:

In the last two decades, efforts are on to develop a common monitoring and surveillance network on regional basis i.e. European Union countries, African countries and Caribbean countries. The overall objective of the program is to strengthen the capacity of governments, technical entities and regional agencies to respond to changing drug abuse patterns and trends and contribute to the abatement of drug abuse in the region. The specific purpose of the project is to establish a sound database and "early warning" surveillance system to assist national and regional policy makers in demand reduction.

(i)European Monitoring Centre for Drugs and Drug Addiction (EMCDDA)

Over the last decades inside and outside of Europe, treatment-based data have been used in epidemiological research on drugs and drug abuse. They offer information on hidden populations. As this type of research can be done on rather low budgets, there are long-term projects run in many countries. Experts from the national systems in several EU member states have been working together to develop a common standard on the basis of the Pompidou Group (PG) Definitive Protocol. The items and basic definitions of the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA)/PG Treatment Demand Indicator Protocol are described, which plays an important role in the process of harmonization of data (Simon et al,1999).

More than twenty cities are using this protocol and many national systems are either entirely (e.g. Ireland, Greece) or at least partly (e.g. The Czech Republic, Denmark, Belgium) based on this protocol. For 1996, 22 cities from all over Europe (Amsterdam, Athens, Bratislava, Bucharest, Budapest, Copenhagen, Cyprus, Dublin, Gdansk, Geneva, Liège, Ljubljana, Malta, Orenburg, Prague, Rome, St. Petersburg, Sofia, Szeged, Varna, Warsaw and Zagreb) provided their data on a total of 29 000 treatment demands.

In future it is planned to do a reliability and validity check on an international multi-site basis to make sure, that the items used fulfill basic methodological requirements.

(ii) Another regional surveillance network — **Caribbean Drug Information Network** (CARIDIN) has been established with a series of sustainable activities to inform this network (CARIDIN, 2001). The UNDCP, within its Global Assessment Programme (GAP), has been assisting countries in the region to conduct studies aimed at improving the understanding of the patterns and causes of drug abuse. CICAD has developed a system, the Inter-American Uniform Drug Use System (SIDUC), to improve the collection of comparable statistical information on the consumption of psychoactive substances within the region. The principal activities to be carried out, in all beneficiary countries (Total 15), surround network capacity building, the implementation of school surveys and conducting of focused assessments in high-risk groups. Other activities will include data collection from emergency rooms, treatment centers & prisons.

(iii) The South African Community Epidemiological Network on Drug Abuse (SACENDU)

Project is an alcohol and other drug (AOD) sentinel surveillance system now operational in 8 provinces in South Africa: Western Cape (WC: Cape Town), KwaZulu-Natal (KZN: Durban, Pietermaritzburg), Eastern Cape (EC), Mpumalanga (MP), Gauteng (GT: Johannesburg, Pretoria), Free State (FS), Northern Cape (NC), and Northwest (NW).

The last 3 provinces form part of what is termed the Central Region (CR) and provided data from 2006b. The system, operational since 1996, monitors trends in AOD use and associated consequences on a six-monthly basis from specialist AOD treatment program. Plans are underway to expand the surveillance system to all provinces during 2007 and to increase the spread of treatment centers included in WC, GT and KZN. This report will focus on data on treatment admissions from the 8770 patients seen across the 73 centers/program in the 2nd half of 2006.

The experience gained from these monitoring systems eliciting information from treatment seekers in the field of substance abuse is that with comprehensive guidelines and not too complicated instruments, useful data can be elicited on trends and profiles at national and regional levels.

2.2 Indian Experiences:

- (i) **Indian Council of Medical Research Collaborative study:** The viability of Drug Abuse Monitoring System has been seen for first time through a Task

force project of Indian Council of Medical Research. The study was conducted at Delhi, Jodhpur and Lucknow and information was elicited from more than 10,000 respondents registered at governmental and non-governmental organizations from 1990 to 1992 data. (Ray and associates,1992).The cost of such an exercise was minimal and data generated over 3 years provided very meaningful insight for resource allocation, re appropriation and over all program implementation

- (ii) **Community Based Pilot Project:** There was also DAMS component in a multi-centered community-based pilot project at three sites (Barabanki, Mandsuar and Thobal), implemented by All India Institute of Medical Sciences on behalf on Ministry of Health & Family Welfare(Ray and associates,1998)

- (iii) In 1999, the **Ministry of Social Justice and Empowerment and United Nations International Drug Control Program, ROSA office, New Delhi** sponsored a DAMS study and a total of 203 agencies (NGO's, private psychiatrists and governmental organizations participated in this exercise. The study spread over to 23 states and 2 union territories and National Capital Territory was able to elicit information from more than 16000 respondents in three months and provided information on socio-demographic profiles of treatment seekers, drug pattern and trends and high risk behavior (DAMS Monograph, 2002).

3 Objectives and Methods

3.1 Rationale:

It became clear from the above description that such types of studies are sustainable and remain a relatively inexpensive method to get wide sources of information from registered patients at a treatment facility. However, drug scene change rapidly and require data on continuous basis on parameters like use of licit and illicit drugs, socio-demographic profiles of treatment seekers, injectable drug use if any, risk behaviors, sexually transmitted infections including HIV and long term maintenance plan. The information collected as a routine procedure helps in planning, management and even evaluation of drug treatment program at national level. The Drug Abuse Monitoring component of WHO Biennium Project (2006-07) is an effort in this direction at national level. The main advantage of this exercise would be the initiation and evolvement of drug abuse monitoring at national level. The earlier studies were restricted to a few centers or cities.

3.2 Objectives:

- (i) To develop and establish a national monitoring system to collect information on continuous basis on drug use, profile and risk behaviour from treatment seekers registered at drug dependence treatment centres.
- (ii) To develop practical and cost efficient methods of collecting and assessing data on licit and illicit drugs.

3.3 Methods:

3.3.1 Universe of the Study:

All new patients, i.e. registering for the first time for treatment to any of Drug Dependence Treatment Centre sponsored/ strengthened by the Ministry of Health & Family Welfare. The Ministry has established 122 Drug De-addiction Centers in Central Governmental Hospitals/ Institutions, State civil/district hospitals all over the country by 2005. Treatment stands for any or combination of detoxification and psychosocial therapies. To keep uniformity in recording of information for DAMS, patient will be the sole informant on various items and information provided by him/her would not be validated from other sources.

3.3.2 Instruction Manual: A manual was developed to provide a comprehensive document for the participating agencies to fill the necessary information in simple and objective manner. The uniform data collected would help in developing a broad-based data can be gathered at national level on a continuous basis. In this manual, efforts have been made to provide definitions and instructions in filling of each item and relevant codes. There is a reference for who should be included under DAMS, proper completion of form and submission.

3.3.3 Data Collection Instrument: A simple pre-coded monitoring tool was developed for collecting data. All treatment centers covered under Ministry of Health & Family Welfare to gather data for a period of twelve months from all their new patients registered from 1st September, 2006 onwards. The form was filled out on the first day of contact with the client though it could be subsequently revised if the person remained in contact for a longer duration. The person In charge of treatment facility/ centre was then asked to send the completed questionnaires to the Coordinating office at National Drug Dependence Treatment Centre at All India Institute of Medical sciences, New Delhi on quarterly basis.

The DAMS instrument included questions on the following:
User Profile-Age, Sex, Education, Marital and Employment Status and Current living arrangement
Drug Profile - The Profile of Abuse of Various Drug Types “Use within 30 days” and “life time use” Inject able Drug Use practice, physical complications, viz. Sexually Transmitted Infections, Jaundice, HIV Screening & Status, Concurrent Psychiatric and Medical illness and previous treatment.

There were altogether nineteen items in the DAMS instrument. These were:
Demographic parameters (8 items)
Drug use history (1item), ID Use (2 items), Physical complications (3items),
Concurrent illness (2 items) and Previous treatment (2 items)

3.3.4 Consent & familiarization:

Since, unit of participations for DAMS component were spread over to all over India, a postal contact was initiated and a detail was provided about aims and objectives, the nature of participation and mechanism of co-ordination in the month of June, 2006. The centers were also informed that it is a voluntary participation and a small grant would be sent to them for expenditure incurred on photocopying of instrument, postal expenses and other incidental charges. As the consent of participation came gradually, second and third reminders were sent. The DAMS co-coordinator’s office maintained separate record of participation status of each centre. Once, the consent of participation received from a centre, the DAMS Instrument, instruction manual and a contingency amount were sent to them. A total of 60 centers consent for participation came and data collection was started by these centers from 1st Sept, 2006

3.3.5 Data collection and scrutiny of proforma:

To keep the uniformity, data collection period was divided into four quarters (Sept to Nov.,06, Dec.,06 to Feb.,07, March to May,07 and June to August,07). The Center’s data received on quarterly basis was scrutinized by the co-coordinating office and discrepancy, if any was intimated. A close co-ordination was maintained with the participating centers during data collection phase. This helped in filling of complete proforma/information and maintains internal consistency.

The data was collected from 1st of September 2006 to August 2007.

4 Results:

At country level out of 122 De-addiction centers, 60 gave consented for participation for Monitoring. However, 9 centers could not sent data either on account of patients not getting registered for treatment or non- functioning of a Centre due to administrative/ other

problems. A total sample of 11775 new patients, registered at 51 De-addiction centers during 1st Sept, 2006 to 31st Aug, 2007 was covered under Monitoring System. The results presented here are divided into three parts : Socio-demographic profile, drug use pattern including Injectable Drug use and Physical and Mental Health problems and attempts for treatment.

Part-I Socio- demographic profile of treatment seekers:-

Sex Wise Distribution (Table1)

A majority of them were men (99.1). There were 117 women, almost one percent of sample covered who seek treatment for substance abuse disorder at these facilities for the first time during the study period.

Age Wise Distribution (Table 2)

Among men patients, one –third of treatment seekers (35.5%) were in the age group of 26-35 years, followed by the next higher group 36-45 (28.7%). The youth/adolescent group had also a fair representation; more than 18% of the sample covered was below the age of 25 years.

The same trend was reflected among 117 women treatment seekers. About 25% were below the age of 25 years. The maximum were in the age group of 26-35 years (29.9%), followed by the age group of 36-45 years (28.2%)

Martial status of the Samples (Table 3)

Among men, a large majority were married (72.6%) and 23% were unmarried. A small section of samples covered in the category of separation/ widower (3.2%). There were 138 men (1.2%), who reported separation on account of substance abuse behavior.

A different trend emerged among women treatment seekers in respect of marital status. Among them half of them were married and 15% had never married status. The broken marriage and separation was seen among 20% of women subjects and 15% reported widow status. These figures clearly indicate family dysfunction and social burden among women drug users.

Education wise distribution (Table 4)

About One-fifth men treatment seekers (19.2%) among men were illiterate or just could read and write where as primary/middle education was reported by 35% registered patients. An equal proportion had education up to 10th/12th classes (higher secondary level). The higher studies (graduation and above) was stated by one-tenth of men respondents.

Among women registered patients, 40% were illiterate or just can read and write, 30% were primary/ middle and 18.8% reported 10th /12th class education level. The graduation and above education was indicated by one –tenth of women users, almost competing with that of men users in the study.

Distribution according to Employment Status (Table 5)

About one-third of male patients (29.3%) reported non-employment status at the time of registration. From employment perspective, one-third were self-employed (33.0%) followed by full-time employment (22.5%) and part-time employment (9.2%). The student constituted 2% of the sample covered under monitoring system.

The women users registered under drug abuse monitoring system had a different trend in employment. One-fourth (23.1%) were engaged in household work, while more than one-third (33.4%) were self or part-time employed. The full-time employment was confined to just 7% of the sample covered.

Distribution according to Living Arrangement (Table 6)

Contrary to the belief, a large majority of patients under monitoring system was staying within the institution of family. Among men 55% reported staying in nuclear family, whereas 40% were living within the joint set up, i.e. parents, siblings and offspring. The rest reported staying alone (2.5%) with friends and (1.0%) and other living arrangement, mostly on the street/homeless was seen among a very small percentage (1.6).

Among women treatment seekers, again nuclear family unit was the arrangement for a large majority (60%), followed by joint family (29%) whereas 5% were staying alone. Six cases were staying outside the family (with acquaintance/ street).

Part-II Drug Use Pattern:

Drug use pattern among the patients registered under DAMS (Table 7)

Drug use pattern was assessed from the treatment seekers on the basis of use of one or more substances during 30 days of registration (current use) and during their life time (Ever use).

Among men, most commonly used substances were alcohol (65%) and tobacco (68%). Opium and its derivatives (heroin, other opioids) emerged as second preferred drug category as 40% men reported its use (14% each for opium and heroin and 12% other opioids mainly Proxyvon, Spasmoproxyvon, fortwin and norphine etc.). Cannabinoids (bhang, ganja) was reported by one-tenth (9.6%) of these registered patients). Sedatives/Hypnotics, part of ploy drug abuse scene were reported by 6.5% of these men. Use of Volatile solvents (toluene etc. mainly in the form of whitener) was reported by 109 of the subjects.

Among women subjects, tobacco, alcohol was reported by 56.4% and 51.3% respectively. Again 40% of women registered patients reported use of opium, heroin, other opioids; a trend almost close to men's drug use pattern. Sedatives/Hypnotics were choice of 8.5%. Cannabis use was reported just by 2 patients.

Distribution of subjects according to Ever use drug pattern (Table 8)

On assessing ever use drug pattern (life time use), alcoholic beverages emerged as the most preferred psycho-active (78.2%), followed by tobacco products (71.0%). A significant point was that 14% and 4% of alcohol and tobacco users respectively reported 'Ever use' but not stated their use preceding the last 30 days of registration (Current use). Use of opium, heroin and other opioids was reported by 49.3% of the registered patients while the corresponding figure of current use of these psycho-actives was 40.7% (Table 7). Almost the same difference was seen for cannabis and sedatives drug categories among male patients. The ever use of cannabis products was 15.4% and sedatives/hypnotics was 17.1%; while current use was 9.6% and 6.5% respectively. The use of volatile solvents (thinner, whitener etc.) was reported by 196 persons (1.7%), whereas its current use was stated by 109 (0.9%) persons.

Thus remission was seen among 5 to 10% registered patients for different psycho-active substances, reflecting treatment attempts or quitting on one account or others.

Among 117 women users, alcohol/tobacco or both was reported by more than 60%, while current use was less by 10% for alcohol and 7% for tobacco. For opium, heroin and other opioids 55 (47%) reported use during life time and 45(38%) were continuing at the time of registration (current use). For cannabis difference between ever and current use was 5% and sedatives/hypnotics, it was about 4%. Thus among women users, 4 to 10% reported cessation of drugs in their life time.

Distribution of subjects according to Injectable Drug Use (IDU) (Table 9)

Out of 11775 patients covered under Drug abuse Monitoring, about one-tenth (1090) reported use of Injectables in their drug career. Out of these, 1073 (9.2%) were men and 17 subjects were women (6.5%). Further assessing their current use (with in the last 30 days) 759 (6.5%) men and 14 (12.1%) reported use of pharmaceutical products like Proxyvon, Spasmoproxyvon, tidigesic (buperonorphine), fortwin and pure form of Heroin, no.4. A positive indication was that about 30% of Ever user of injectables did not report use of these substances during the last 30 days.

Distribution of Injectable users by route of administration (Table 11)

Out of 759 men current users, who reported Injectable use, intravenous mode was the most preferred (76.1%), followed by intramuscular (22.1%) and only 2 subjects subcutaneous route of these drugs. The same trend was observed among 14 women ID Users, ie. 79% reported intravenous and the rest through intramuscular.

Sharing of needles among ID Users (Table 10)

The phenomenon of needle sharing was observed among half of current users among men. Fifty percent reported that they shared needle with peers during shooting of preferred pharmaceutical products. Among women users, the sharing was reported by 57% of ID Users.

Paraphernalia sharing among ID Users (Table 12)

As far paraphernalia, one-third current ID Users among men admitted sharing of cotton, boiling pot.

A large majority (65.5%) denied such sharing while injecting the dose. Among women users sharing was reported by 50% current ID Users.

Part III: Drug related complications

Sexually Transmitted Infections (Table 13)

Among the subjects covered under monitoring, 389 (3.3%) reported Sexually Transmitted Infections (STI) in their life time. The STI status was ascertained through a set of symptoms, viz. genital ulcer growth, burning urination, urethral discharge, itching around genital organs, vaginal and rectal pain/discharge. In case a person admitted occurrence of one or more symptoms, it was taken as a positive indication of STI.

Among 117 women users, 13 cases (11.1%) suffered from STI, a comparatively higher percentage than men drug users and suggesting vulnerability of women users towards transmission of infections/diseases.

Occurrence of Jaundice (Table 14)

One-tenth men (9.5%) and 6% women drug users reported occurrence of jaundice, an indication towards Hepatitis in their lifetime. Not given in the table, but these were reported more among patients registered at treatment facilities, located in the North-east part of the country.

Psychiatric illness among the patients covered (Table 15)

Among male users, 13.4% reported psychiatric morbidity along with substance abuse disorder. The corresponding percentage was much higher among women drugs users (29). The common psychiatric illness reported by the patients at these participating centers were drug induced psychosis (alcohol, cannabis), anxiety disorder, mild/major depression, anti-social personality, insomnia, mood alteration and abnormal behavior.

Physical complications reported among subjects covered under DAMS (Table 15)

One-sixth of male patients covered under monitoring admitted one or more physical complications on account of sustain the habit of alcohol/drugs. Among women users, the figure rise to double (33.3%).

The common physical complications seen were: alcohol liver disease (ALD), hepatitis, gastritis, GI bleeding, anemia, weakness, pulmonary kock's, septic wound and different types of injuries.

HIV Screening and Status (Tables 19&20)

Among male patients, 685(6%) had undergone screening for Human Immunodeficiency Virus (HIV) and out of those screened,7.3% had a positive status, a figure 20 higher in comparison to general population prevalence figure of 0.36%. These figures again suggest vulnerability of alcohol/drug users towards transmission of HIV and AIDS.

Previous Treatment (Table 17)

From Table 17, it became clear that subjects covered under DAMS from 51 participating centers, about one-sixth (17.5%) had history of previous treatment. However, it may not necessarily be from the same treatment facility. On the other hand, around 80% of subjects covered under DAMS during this period came for the first time for treatment of substance abuse disorder. Such a figure among women users was 87.2%.

Hospitalization (Table 18)

It appears that those who reported previous treatment, majority of them were hospitalized (in-patient treatment). Out of 2035 men, 1442 (70.86%) were hospitalized at one or more occasions. Among 14 women users who had history of earlier treatment, 12 admitted at a treatment facility (facilities) at previous occasion.

5. Conclusions

As a part of WHO Biennium activity, this drug abuse monitoring feasibility study proves successful in many ways:

5.1 Participation

First of all, about half of the Drug Dependence Treatment Centers with the funding of or one time grant from the Ministry of Health and Family Welfare gave their consent to participate in the monitoring study on voluntary basis. Out of 122 Drug De-addiction Centres, 60 gave their consent of participation and 51 Centers were able to send data as per schedule set for the study. Nine Centers were not able to send data either on account of substance abuse patients not getting registered or, non-availability of staff and other administrative problems.

These participating treatment facilities are geographical spread over throughout the country. With the exception of 6 De-Addiction Centres run by Central Institutions/Hospitals; others are governed by State governments. The settings of these treatment facilities differ i.e. medical colleges/institutes, designated De-addiction Centers and mostly through District/Civil Hospitals. This provides a fair representation of existing treatment services through government sector at national level.

During the study period of one year, a total sample of 11775 persons was registered. These were the persons with substance abuse problem, who got registered for the first time as a new patient at a participating treatment facility. The patients registered varied from a mere 30 to maximum 3000 within 12 months. There were 5 treatment Centers, who reported more than 500 patients in this period. Another 26 Centers reported new patient load from 100 to below 500 and remaining 20 treatment facilities reported less than 100 patients. Thus, there is a need for strengthening services of these Centers where new patient load is less than 100 in a year.

5.2 Profile of new registered patients:

Drug Abuse monitoring data reflects the broad profile of substance abusers. As seen from the results, an overwhelming patients were men (99%). The positive aspect is that 117 female patients got registered and came for treatment for the first time.

Another noteworthy feature was that about one-fourth registered patients were below 25 years among both men and women, reflecting a trend of early age of initiation, progression towards problematic use and seeking treatment within a period of 5-7 years. Earlier the experience suggest that such period was more than 10-15 years. This can be an indication of availability of de-addiction treatment services and also success of health campaigns against drugs and an early recognition of problem.

A large majority of the samples were married but 138 cases reported separation from spouse on account of their drug seeking behavior. Family disorganization was more conspicuous among women drug users as one-tenth of the sample had marital problems.

The substance abuse phenomenon is no longer confine to illiterates or semi-literates but in this samples, 35% patients had education up to 10th & 12th class level and one-tenth had graduation and above. The same trend was reflected among women patients, where one-tenth had education level up to graduation, mostly from north-east region.

About 30% men treatment seekers were not working but the rest were engaged in some productive work. As many as 22% subjects indicated full time employment. Among women users only 7% were full time employed.

Contrary to the common perception, majority of the patients were staying within the institution of family. Ninety five percent men patients were staying in nuclear/joint families. Among women users majority were living within the family set up but 10% were living alone or outside.

Thus substance abuse treatment seekers remain within the gambit of family and social fabric and rarely project an image of “junkie” or “skid-row” of the West.

5.3 Drug Use Pattern

Drug use pattern was assessed from the treatment seekers on the basis of use of one or more substances during 30 days of registration (current use) and during their life time (Ever use). Among men treatment seekers, most commonly used substances were alcohol and tobacco. Opium and its derivatives (heroin, other opioids) emerged as second preferred drug category as 40% men reported its use (14% each for opium and heroin and 12% other opioids mainly Proxyvon, Spasmoproxyvon, fortwin and norphine etc.). Cannabinoids (bhang, ganja) was reported by one-tenth and sedatives/ hypnotics remained part of ploy drug abuse scene. The monitoring data also reflect introduction of Volatile solvents (toluene etc. mainly in the form of whitener) as reported by 109 of the subjects.

Among women users, tobacco and alcohol was reported by more than half of the subjects. About 40% of women registered patients reported use of opium, heroin, and other opioids. Sedatives/ Hypnotics were choice of 8.5%. Cannabis use was negligible.

On assessing ever use drug pattern (life time use), a remission was seen among 5 to 10% among men and women registered patients for different psycho-active substances, reflecting successful attempt of quitting on their own or through external help

5.4 Risk Behavior

One of the risk behavior emerged among the study subjects was Injectable Use as one-tenth (1090) reported such a practice in life time and about 7% were continuing preceding 30 days of registration. The preferred pharmaceutical products were Proxyvon, Spasmoproxyvon, tidigesic (buperonorphine), fortwin and pure form of Heroin(no.4) The three-fourth current ID Users reported intravenous route and the rest through intramuscular. The phenomenon of needle sharing was observed among half of current users among men while one-third admitted sharing of cotton, boiling apparatus etc.

Among male patients, 685(6%) had undergone screening for Human Immunodeficiency Virus (HIV) and out of those screened,7.3% had a positive status, a figure 20 higher in comparison to general population prevalence figure of 0.36%. These figures again suggest vulnerability of alcohol/drug users towards transmission of HIV and AIDS.

5.5 Physical and Mental Health problems

The study was able to get some data on physical and psychiatric complication arising out of substance abuse disorder. Three percent male subjects reported Sexually Transmitted Infections (STI) in their life time. The corresponding figure of 11 percent among women drug users suggested vulnerability towards transmission of infections/diseases.

One-tenth men (9.5%) and 6% women drug users reported occurrence of jaundice, an indication towards Hepatitis in their lifetime

Among male users, 13.4% reported psychiatric morbidity along with substance abuse disorder while among women users it was 29 percent.

One-sixth of male patients covered under monitoring admitted one or more physical complications on account of sustaining the habit of alcohol/drugs. Among women users, the figure rise to double (33.3%).

These figures are a fair indication of cost of illness and co-morbidity arising out of a self inflicting disease of drug dependence and a challenge to health and welfare agencies.

5.6 Difficulties encountered:

Difficulties were encountered at various levels. After the introductory letter sent to 122 De-addiction Centers, response of participation was not adequate and it was followed by more reminders. It took about two months for initiation and collection of data. At few Centers, the In Charge of the program and administrative authority differs and it took a long time to get consent of participation. Since the participation in the program was on voluntary basis, only half of the listed Centers were able to give the consent. A few participating Centers were unable to collect data on various accounts. The main reasons were alcohol/drug abusers not getting registered and inadequate manpower. The fear of underground elements was another hindrance in data collection.

During scrutiny of filled in Performa, certain items were not properly filled and codes were missing. This took longer time in scrutiny and at few occasions filled in performa was sent

back to individual Centre for necessary corrections. Duplicate cases were also identified and these were not considered for data entry. A few Centers were not able to follow to sent data on quarterly basis and data got accumulated at the end.

5.7 Viability of drug abuse monitoring system:

The modest success of implementing a cost-effective mechanism at half of the De-addiction Centres in health sector suggests viability of such program at national level. The DAMS component has facilitated a mechanism where data acquisition can be carried out on continuous basis from De-Addiction Centers run by the Central and State governments. Further efforts are required to pursue the remaining Centers to become part of DAMS network so that a fair representation can be achieved. The data gathered on continuous basis can help in resource allocation and strengthening of program at national level.

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Table 1 Distribution of the Sample by Sex

		n	
Sex	Male	11658	99.0%
	Female	117	1.0%
Total		11775	

Table 2 Distribution of the Sample by Sex and Age

Age	Sex		Total
	Male	Female	
upto 15yrs	47 (.4%)	2 (1.7%)	49 (.4%)
16-25	2085 (17.9%)	29 (24.8%)	2114 (18.0%)
26-35	4139 (35.5%)	35 (29.9%)	4174 (35.4%)
36-45	3346 (28.7%)	33 (28.2%)	3379 (28.7%)
46-55	1544 (13.2%)	7 (6.0%)	1551 (13.2%)
more than 55	481 (4.1%)	11 (9.4%)	492 (4.2%)
Not Known	16 (.1%)	-	16 (.1%)
Total	11658	117	11775

Table 3 Distribution of the Sample by Sex and Marital Status

Marital status	Sex		Total
	Male	Female	
Never married	2674 (22.9%)	18 (15.4%)	2692 (22.9%)
Married	8460 (72.6%)	57 (48.7%)	8517 (72.3%)
Divorce/Separated	240 (2.1%)	11 (9.4%)	251 (2.1%)
Widow/Widower	128 (1.1%)	18 (15.4%)	146 (1.2%)
Separated due to Drug Abuse	138 (1.2%)	13 (11.1%)	151 (1.3%)
Not known	18 (.1%)	-	18 (.1%)
Total	11658	117	11775

Table 4 Distribution of the Sample by Sex and Education

Education	Sex		Total
	Male	Female	
Illiterate	1411 (12.1%)	30 (25.6%)	1441 (12.2%)
Literate	833 (7.1%)	18 (15.4%)	851 (7.2%)
Primary	1641 (14.1%)	15 (12.8%)	1656 (14.1%)
Middle	2394 (20.5%)	20 (17.1%)	2414 (20.5%)
Upto 10th/12th	4028 (34.6%)	22 (18.8%)	4050 (34.4%)
Graduation	1130 (9.7%)	11 (9.4%)	1141 (9.7%)
PG/Tech/Prof.	201 (1.7%)	1 (.9%)	202 (1.7%)
Not known	20 (.2%)	-	20 (.2%)
Total	11658	117	11775

Table 5 Distribution of the Sample by Sex and Employment

Employment	Sex		Total
	Male	Female	
Never Employed	759 (6.5%)	22 (18.8%)	781 (6.6%)
Presently Unemployed	2765 (23.7%)	18 (15.4%)	2783 (23.6%)
Full time employed	2618 (22.5%)	8 (6.8%)	2626 (22.3%)
Part time employed	1067 (9.2%)	23 (19.7%)	1090 (9.3%)
Self employed	3851 (33.0%)	16 (13.7%)	3867 (32.8%)
Student	236 (2.0%)	2 (1.7%)	238 (2.0%)
House wife/Girl	39 (.3%)	27 (23.1%)	66 (.6%)
Any other	288 (2.5%)	1 (.9%)	289 (2.5%)
Not known	35 (.3%)	-	35 (.3%)
Total	11658	117	11775

Table 6 Distribution of the Sample by Sex and Living Arrangement

Living arrangement	Sex		Total
	Male	Female	
Joint family	4674 (40.1%)	34 (29.1%)	4708 (40.0%)
Nuclear family	6339 (54.4%)	70 (59.8%)	6409 (54.4%)
Alone	290 (2.5%)	6 (5.1%)	296 (2.5%)
With friends	120 (1.0%)	3 (2.6%)	123 (1.0%)
Any other	185 (1.6%)	3 (2.6%)	188 (1.6%)
Not known	50 (.4%)	1 (.9%)	51 (.4%)
Total	11658	117	11775

Table 7 Distribution of the Sample by Sex and Current drug use

Drug use	Sex		Total
	Male	Female	
Alcohol	7535 (64.7%)	60 (51.3%)	7595 (64.5%)
Heroion	1667 (14.3%)	20 (17.1%)	1687 (14.3%)
Opium	1666 (14.3%)	5 (4.3%)	1671 (14.2%)
other opioids	1405 (12.1%)	20 (17.1%)	1425 (12.1%)
Cannabinoids	1118 (9.6%)	2 (1.7%)	1120 (9.5%)
Sedatives/hypnotics	759 (6.5%)	10 (8.5%)	769 (6.5%)
Cocaine	23 (.2%)	-	23 (.2%)
Other stimulants	17 (.1%)	-	17 (.1%)
Hallucinogens	15 (.1%)	-	15 (.1%)
Volatile solvents	109 (.9%)	-	109 (.9%)
Tobacco	7875 (67.6%)	66 (56.4%)	7941 (67.5%)
Any other	237 (2.0%)	2 (1.7%)	239 (2.0%)
Total	11658	117	11775

Table 8 Distribution of the Sample by Sex and Ever drug use

Drug use	Sex		Total
	Male	Female	
Alcohol	9116 (78.2%)	72 (61.5%)	9188 (78.1%)
Heroin	1923 (16.5%)	23 (19.7%)	1946 (16.5%)
Opium	2031 (17.4%)	6 (5.1%)	2037 (17.3%)
other opioids	1789 (15.4%)	26 (22.2%)	1815 (15.4%)
Cannabinoids	1989 (17.1%)	8 (6.8%)	1997 (17.0%)
Sedatives/hypnotics	1133 (9.7%)	15 (12.8%)	1148 (9.8%)
Cocaine	51 (.4%)	1 (.9%)	52 (.4%)
Other stimulants	28 (.2%)	-	28 (.2%)
Hallucinogens	23 (.2%)	-	23 (.2%)
Volatile solvents	196 (1.7%)	1 (.9%)	197 (1.7%)
Tobacco	8270 (71.0%)	74 (63.2%)	8344 (70.9%)
Any other	272 (3.0%)	3 (2.6%)	275 (2.3%)
Total	11658	117	11775

Table 9 Distribution of the Sample by Sex and Injectable use

	Sex		Total
	Male	Female	
Injecting Drug use(Ever)	1073 (9.4%)	17 (14.9%)	1090 (9.4%)
Injecting Drug use(current)	759 (6.5%)	14 (12.1%)	773 (6.6%)

Table 10 Distribution of the Injectable users by Sex and Sharing

Sharing of syringe/niddle	Sex		Total
	Male	Female	
Yes	369 (49.2%)	8 (57.1%)	377 (49.3%)
No	390 (50.8%)	6 (42.9%)	396 (50.7%)
Total	759	14	773
			-

Table 11 Distribution of the Injectable users by Sex and Route of use

Route of Administration	Sex		Total
	Male	Female	
I.V.	572 (76.1%)	11 (78.6%)	583 (76.1%)
I.M.	166 (22.1%)	3 (21.4%)	169 (22.1%)
S.C.	2 (.3%)	--	2 (.3%)
Not known	17 (1.6%)	-	17 (1.6%)
Total	759	14	773 -

Table 12 Distribution of the Injectable users by Sex and Paraphernalia

Paraphernalia	Sex		Total
	Male	Female	
Yes	253 (34.5%)	7 (50.0%)	260 (34.8%)
No	506 (65.5%)	7 (50.0%)	513 (65.2%)
Total	759	14	773

Table 13 Distribution of the Sample by Sex and STI Symptoms

STI Symptoms	Sex		Total
	Male	Female	
Yes	389 (3.3%)	13 (11.1%)	402 (3.4%)
No	10770 (92.4%)	100 (85.5%)	10870 (92.3%)
Not known	499 (4.3%)	4 (3.4%)	503 (4.3%)
Total	11658 (100.0%)	117 (100.0%)	11775 (100.0%)

Table 14 Distribution of the Sample by Sex and Jaundice

Jaundice	Sex		Total
	Male	Female	
Yes	1102 (9.5%)	7 (6.0%)	1109 (9.4%)
No	10143 (87.0%)	107 (91.5%)	10250 (87.0%)
Not known	413 (3.5%)	3 (2.6%)	416 (3.5%)
Total	11658	117	11775

Table 15 Distribution of the Sample by Sex and Psychiatric illness

Psychiatric illness	Sex		Total
	Male	Female	
Yes	1560 (13.4%)	34 (29.1%)	1594 (13.5%)
No	9731 (83.5%)	82 (70.1%)	9813 (83.3%)
Not known	367 (3.1%)	1 (.9%)	368 (3.1%)
Total	11658	117	11775

Table 16 Distribution of the Sample by Sex and Medical illness

Medical illness	Sex		Total
	Male	Female	
Yes	1769 (15.2%)	39 (33.3%)	1808 (15.4%)
No	9495 (81.4%)	76 (65.0%)	9571 (81.3%)
Not known	394 (3.4%)	2 (1.7%)	396 (3.4%)
Total	11658 (100.0%)	117 (100.0%)	11775 (100.0%)

Table 17 Distribution of the Sample by Sex and Previous treatment

Previous treatment	Sex		Total
	Male	Female	
Yes	2035 (17.5%)	14 (12.0%)	2049 (17.4%)
No	9227 (79.1%)	102 (87.2%)	9329 (79.2%)
Not known	396 (3.4%)	1 (.9%)	397 (3.4%)
Total	11658	117	11775

Table 18 Distribution of the Sample by Sex and Hospitalization

Hospitalisation	Sex		Total
	Male	Female	
Yes	1442 (12.4%)	12 (10.3%)	1454 (12.3%)
No	9799 (84.1%)	104 (88.9%)	9903 (84.1%)
Not known	417 (3.6%)	1 (.9%)	418 (3.5%)
Total	11658 (100.0%)	117 (100.0%)	11775 (100.0%)

Table 19 Distribution of the Sample by Sex and HIV Screening

HIV screening	Sex		Total
	Male	Female	
Yes	685 (5.9%)	22 (18.8%)	707 (6.0%)
No	10534 (90.4%)	92 (78.6%)	10626 (90.3%)
Total	11652	117	11769

Table 20 Distribution of the Sample by Sex and HIV Screening results

HIV screening results	Sex		Total
	Male	Female	
Positive	50 (7.3%)	1 (4.8%)	51 (7.3%)
Negative	496 (72.7%)	16 (76.2%)	512 (72.8%)
Not Known	139 (19.9%)	5 (19.0%)	144 (19.9%)
Total	685	22	707