

# A multi-centre rapid assessment of injecting drug use in India

Jimmy Dorabjee \*, Luke Samson

*The Society for Service to Urban Poverty (SHARAN), B3/3 Safdarjung Enclave, New Delhi 110029, India*

Accepted 27 October 1999

---

## Abstract

In 1998, a series of five rapid situation assessments (RSA) of injecting drug use were undertaken by The Society for Service to Urban Poverty (SHARAN) covering the major Metropolitan cities of Mumbai, Chennai, Calcutta, Delhi and Imphal. The RSA determined the extent and patterns of injecting drug use (IDU), the available responses, current and planned interventions, and drug users' perceptions of injecting and sexual-related risk behaviour. The RSA was necessary as there are a lack of data on IDU in India. This has resulted in the denial of injecting drug use except for the north-eastern states by official sources, thereby affecting the inputs for IDU-related interventions. The draft assessment reports were disseminated through city workshops, held between April 1998 and January 1999. Local NGOs involved in drug treatment and HIV related interventions, government officials, and the relevant State AIDS Cells were invited to the workshops in order to contribute to final city assessment reports, so as to promote ownership and to enhance coverage. While the data obtained from the RSA were largely as anticipated, the outcome of the dissemination workshops was phenomenal. © 2000 Elsevier Science B.V. All rights reserved.

*Keywords:* India; Injecting drug use; Rapid assessment; HIV; Heroin; Buprenorphine

---

## 1. Introduction

Injecting drug use (IDU) was a rarely known phenomenon in the Indian sub-continent two decades ago. The mid 1980s witnessed an epidemic of heroin injecting in the north-eastern states of Manipur, Mizoram and Nagaland (Naik et al., 1991; Sarkar et al., 1991, 1993; Indian Council of Medical

Research, 1992–1995). The early 1990s saw a new epidemic of pharmaceutical injecting in the major metropolises of Delhi, Calcutta and Chennai (Basu et al., 1990; Chowdhury and Chowdhury, 1990; Biswas, 1994; Dorabjee, 1994; Bhardwaj, 1995; Kumar, 1997; Panda and Chatterjee, 1997).

India has a long history of traditional drug use with opium and cannabis being the most popular traditional drugs available. Until the early 1980s, opium and cannabis were available to registered users from government au-

---

\* Corresponding author. Fax: +91-11-619-3145.

E-mail address: jimmyd@vsnl.com (J. Dorabjee)

thorised shops. However, with growing concerns of the international community and the introduction of a restrictive new law — the Narcotic Drugs and Psychotropic Substances (NDPS) Act in 1985 — the controls on licit and illicit sales caused many traditional users to seek available alternatives. Political events on India's western borders (Golden Crescent) resulted in large quantities of 'brown sugar', a crude form of heroin known locally as 'smack', flooding the Indian markets for re-export, and a percentage of this became available to the Indian markets. The predominant mode of brown sugar administration was through chasing and inhalation, with only a small proportion injecting. By the late 1980s rising prices and decreasing quality of brown sugar forced many to seek treatment (Kumar, 1997; Panda and Chatterjee, 1997; Dorabjee and Samson, 1998). In some detoxification centres, injectable buprenorphine was used for the management of heroin withdrawal, and by the early 1990s, the injecting of buprenorphine was documented by agencies and a new pattern of drug administration began to mushroom in many locations (Nizamie and Sharma, 1990; Singh et al., 1992; Kumar and Daniels, 1994; INCB, 1995; Dorabjee et al., 1998a; Panda et al., 1998).

By 1992, reports of drug injecting from other cities began to appear, and we began to see drug injectors from other cities accessing the treatment services leading us to believe that drug injecting had now spread and was established all over the country. A strong sense of denial persisted among government agencies and the National AIDS Control Organisation of the existence of drug injecting in the cities, and rapid situation assessment was envisaged as a means to investigate the magnitude and scale of IDU country-wide. Previous attempts to assess the extent and nature of drug injecting were based solely on

the enumeration and analysis of hospital and treatment centre records which provide woefully inadequate indicators of the drug injecting situation. The HIV/AIDS epidemic and its many nuances led us to integrate quantitative surveys with qualitative ethnography in order to assess the extent of drug injecting at the same time as tracking new trends through the mode of rapid situation assessment.

## 2. Methods of assessment

The RSA methodology followed guidelines developed in a 65-city High Risk Behaviour Study conducted by the National AIDS Control Organisation, India (Ministry of Health and Family Welfare, 1994). This looked at three categories of 'key informants', essentially structuring in a process of triangulation from the outset. The categories were 'officials and policy makers', 'service providers', and the 'population-in focus' (see below). In addition, the RSA followed certain guidelines laid down by the *Rapid Assessment and Response Guide on Injecting Drug Use (IDU-RAR)* as updated for field-testing in February 1998 by the WHO (1998).

This assessment project was not funded, though funding support for the dissemination workshops held in the five cities was provided by the United Nation's Joint Programme on HIV/AIDS (UNAIDS) and the Indian National AIDS Control Organization (NACO). With the exception of Delhi (see below), the city RSA proposals developed were never funded. In our view, this was a reflection of the fact that injecting drug use was not considered a priority area for intervention or worthy of assessment except in the north-eastern States. With the assessment component of the project proceeding without funding, an outside consultant was identified to support the project (Dave Burrows), co-or-

dinators were identified for each of the five cities, and the methodology was discussed and reviewed. We outline below the assessment objectives and methods employed.

### 2.1. *Assessment objectives*

The RSA had two main objectives. First, it sought to examine patterns and the context of drug use (especially by injection) and HIV infection (especially related to drug use), and current and planned interventions, policies and strategies to address drug use and HIV infection in the five cities of Mumbai, Chennai, Calcutta, Delhi and Imphal. Second, it sought to stimulate and influence policy decisions towards a change in focus from abstinence only prevention messages and drug treatment services towards the pragmatic management of drug use problems and the control of HIV spread through the dissemination of information through workshops.

Taken together, information collected from the RSA was intended to inform the design of interventions among IDUs as well as improve the understanding of factors associated with transitions from ‘chasing’ to injecting drug use. The assessment was therefore undertaken in the belief that timely intervention must be evidence-based and stands to impact on epidemics of IDU in the Asian region (India, Nepal and Bangladesh). At the outset, we identified five hypotheses to guide the assessment:

- that IDU exists in cities/towns apart from the north-eastern states;
  - that IDU is now an established behaviour and hence has alarming potential for growth;
  - that significantly large numbers of opioid users are already engaged in injecting;
  - that behaviours carrying a risk of HIV, HBV and HCV transmission, such as needle sharing, are prevalent; and
- that there is already a pool of HIV-infected IDUs in cities besides those in the north-eastern states.

### 2.2. *Assessment training*

Training was conducted in each city by the authors, the project consultant, and two experts in drug injecting and public health research (Dr Samiran Panda; Dr Anindya Chatterjee). In Mumbai, the Tata Institute of Social Sciences, who are participants in the rapid assessment studies of sexual behaviour among substance users (WHO/UNAIDS, 1998), also provided input. At the outset, we determined study criteria so as to develop common understandings of key terms, including on injecting drug use. For the purpose of the assessment, an IDU was defined as a current drug user who had injected heroin or other pharmaceutical products more than three times in the past year.

The need for standardised training across all five sites was only fully appreciated once the first three assessments were completed. As a result, the remaining two assessments in Delhi and Chennai were undertaken with greater efficiency and with the benefit of the experiences gained in Mumbai, Calcutta and Imphal. The only funded assessment (Delhi) — funded through the US India Fund — showed how essential funding inputs were in terms of facilitating a comprehensive assessment.

The training sessions on rapid assessment in Delhi and Chennai therefore incorporated learning from earlier experiences into the assessment process. In Delhi, 12 workers from SHARAN were selected as field researchers, of whom nine constituted “peer researchers”. They were provided in-house training in basic data gathering techniques. The training took place over a period of 4 days and concentrated on interviewing, observation tech-

niques, mapping, documentation and report writing.

A rough guideline of interview questions was developed, pre-tested and then distributed among participants. Mock interviews formed a substantial component of the training. In addition, examples of earlier ethnographic studies were circulated and discussed, and it was suggested that these earlier studies be used as models for further research. It was explained how richness of detail, observations and description, as well as the recording of researchers' insights, feelings and the ambience of interview situations, would contribute to the quality of research. A role-play was also incorporated, in which two staff members enacted an in-depth interview. With one staff member acting as interviewer and the other as interviewee, staff members were invited to review the contents of the role-play and raise questions on the interview process. Such exercises aimed to provide field researchers with an understanding of data collection procedures and findings. All participants were invited to share their apprehensions about the assessment process — for example, on how to deal with unpleasant or difficult situations that may arise and what precautions were required when talking to key informants.

The training led to basic ground rules being established for the smooth functioning of the assessment. Field researchers were to investigate the following:

- assessment of existing treatment and service centers available in the city;
- enumeration of opioid use, giving proportions and absolute numbers that have switched to injecting;
- description of drug users' lifestyles, social networks, peer groups, sexual and injecting behaviours, and the vulnerability to HIV/AIDS, hepatitis, and other adverse consequences;

- description of recent trends, rituals and behaviours in the drug using scene; and
- assessment of service need and identification of gaps in current service provision.

### 2.3. Mapping

Information provided by local outreach workers formed the basis of mapping the areas in which assessments would take place. Based on the existing knowledge of peer researchers, mapping was undertaken of sites in each city where drug injecting was prevalent. Data from treatment records were scrutinized and areas where IDUs originated from were identified as a means to map new locations of IDU. City maps were put up and areas of heavy drug use were circled and an attempt was made to enumerate the numbers of drug users in each site. Specific areas were allocated to individual researchers, with team members selecting areas in which they had already worked with drug users and with which they were geographically familiar. In the Delhi research team, most members were ex and current drug users ( $n = 9$ ), while the others were people who worked with drug users ( $n = 3$ ). Identity cards were provided to each team member. In Delhi, two researchers were assigned to each site. Each location was selected on the basis that there was a high prevalence of IDU at the site; that the site was a known location for drug peddling and injecting; that there was some degree of mobility among the drug users in the area; and that the data gathered from treatment centres corroborated the existence of IDU in the area.

Enumeration of the extent of IDU was based on anecdotal reports given by key informants from all categories and observation at sites where drug injectors congregated were made in order to cross-check size estimations. Data from published and unpub-

lished reports were also utilised. In Delhi, the India Country Drug Report (ICDR) 1995 (UNDCP, 1995) had estimated that in 1985 there were 50 000 heroin “addicts” in Delhi. Informants across the board were unanimous that heroin use had increased and that the numbers of heroin users had more than doubled by the year 1998. Treatment providers interviewed in Delhi estimated a figure of 100 000 heroin users in 1998. Key informant interviews, treatment centre data, presentations from hospitals and treatment centres during the dissemination workshop, and our own observations revealed that the percentage of heroin inhalers who were now injecting was between 25 and 30%. Thus we concluded that there were between 25 000 and 30 000 injecting drug users in Delhi. However, this may be a conservative estimate. The Delhi Government’s AIDS Control Society has estimated 45 000 injectors (Times, 1999).

#### 2.4. Key informant interviews

A total of 516 key informants were interviewed in the five cities, with 154 interviews undertaken in Delhi, 180 in Calcutta, 108 in Chennai, 47 in Imphal and 27 in Mumbai (Table 1). We divided the key informant sample into the following three categories:

KI 1: policy makers, narcotics and police officials, and Government ministries;

KI 2: service providers, NGO workers, government workers in drug treatment and

HIV prevention, doctors, psychologists, counsellors and social workers; and

KI 3: ex and current drug users, drug dealers, slum dwellers and informed persons.

The individuals interviewed were selected on the basis of being ‘information rich’, and people who were familiar with the drug-using scene were asked to assist in identifying such people. As shown in Table 1, the majority of key informants interviewed across all five sites were those with direct experience of drug use or drug scenes ( $n = 444$ ). In Delhi, three ‘hit doctors’ were interviewed. All those interviewed were explained in detail the purpose of the study and informed consent was taken.

Most of the interviews were conducted by people who had been drug users themselves. In Delhi 12 field researchers collected the information while in Imphal the number was seven, Mumbai and Calcutta used five and there were six in Chennai. They asked open-ended questions about the person’s drug-use and treatment history, details about the first time the person injected drugs, how many injecting drug users were in the area, and other behavioural questions relevant to the spread of HIV. Most of the interviews were conducted in the localities where the users gathered to socialize. Drug users were interviewed, for example, in the parks in which they meet to inject, sleep and live. Dictaphones were used to record interviews at some sites for later transcription and coding

Table 1  
Key informant sub-samples

	Delhi	Mumbai	Calcutta	Chennai	Imphal	Total
KI 1	2	3	10	3	5	23
KI 2	12	5	20	5	7	49
KI 3	140	19	150	100	35	444

on computer. Field notes were taken at all sites.

In addition to interviews, ethnographic observations were undertaken at chemists selling pharmaceutical drug cocktails in order to estimate the number of IDUs injecting. Observations of drug injecting and chasing were carried out. Fifteen focus group discussions were also held with an average of eight participants per group, and with a range of key informants in each city.

### *2.5. RSA matrix development*

In order to standardise the format for data analysis and reporting across the five cities, matrices outlining the key dimensions for data analysis and reporting were developed by the project consultant, and pre-tested. Matrices were developed in four key areas of assessment: drug treatment; drug use; risk assessment; and social context. Each participating city provided feedback on the matrices. However, the standardised matrices were not utilised by field researchers in Calcutta and Mumbai, making comparability across all five sites difficult.

### *2.6. Development of interview questionnaires*

A semi-structured questionnaire with open-ended questions was prepared for interviewers of the KI 3 sub-sample. This was translated into Hindi and pre-tested among a group of current drug users. Appropriate revisions were made to the questionnaire, specifically relating to the order of questions. Further questions were added to derive a comprehensive picture of injecting drug use behaviour. The topics covered in the questionnaire related to: demographic information; drug use history, including types of drug used and mode of intake; injecting and sharing practices; sexual behaviour; and

knowledge of HIV/AIDS. A separate semi-structured questionnaire was used for interviewing KI 1 and KI 2 sub-samples, with additional questions on supply and distribution of drugs, policies relating to drug use and treatment procedures.

### *2.7. Secondary data collection*

Secondary data analysis was conducted of existing documentary evidence, including: policy papers and documents; annual reports of the International Narcotics Control Board (INCB); reports from the Ministry of Welfare, the UNDCP, and the National AIDS Control Program; a literature review of published and unpublished research reports; reports of city prevalence data; NGO programme reports and proposals; and annual reports, intake data and evaluation forms of city treatment centres.

### *2.8. Feedback and dissemination*

After the draft city reports were prepared, workshops were held in each city to disseminate the findings. These workshops drew together treatment agencies, government officials, AIDS control organisations and individuals working in related fields. These workshops, as we describe below, proved an invaluable part of the participatory process to ensure that city assessment reports were comprehensive and inclusive. City agencies and hospitals were asked to make presentations of their work and the additional data they provided on prevalence and incidence were incorporated into final city reports.

## **3. Summary of assessment findings**

Our aim here is only to summarise the main findings emerging from the assessment.

A full description of the assessment findings is provided elsewhere (Chatterjee and Panda, 1998; Dorabjee et al., 1998b; Kumar et al., 1998; Rajkumar et al., 1998; Tellis, 1998). A description of the rapid assessment in Chennai is provided by Kumar et al. (2000).

### 3.1. Literature review

In reviewing the research literature we realised that despite a reported increase in drug injecting as early as 1990 (Chowdhury and Chowdhury, 1990; Nizamie and Sharma, 1990; Naik et al., 1991), there were little data available on the prevalence and incidence of HIV infection among injecting drug users except for studies conducted in the state of Manipur (Sarkar et al., 1993). A study in Chennai found HIV seroprevalence rates among heroin and buprenorphine injectors to be 17.9 and 15.1%, respectively (Mudaliar and Kumar, 1997).

In 1994, the Ministry of Welfare and the Ministry of Health and Family Welfare in collaboration with the UNDCP Regional Office in India established a 'Working Group on Assessment of Drug Abuse Problems' at the National Institute of Social Defense. In 1995, the Working Group produced a draft report entitled *Drug Abuse, Consequences and Responses: India Drug Country Report 1995* (UNDCP, 1995) which was intended to inform policy and program development throughout India (Ministry of Social Justice and Empowerment, 1999). It was also intended to stimulate dialogue and debate, to provide a basis for further research, and to equip interested parties with the information they needed to make informed decisions about drug use, related problems and programs to reduce them. The report is the most comprehensive national report on drug use available to date. However, no estimate of the total number of users was posited. The

draft report estimated that in 1985 there were more than 50 000 'heroin addicts' each in the cities of Calcutta, Delhi and Madras and 80 000 in Bombay. The report also confirmed the emergence of heroin addiction in cities of Manipur (UNDCP, 1995). Eighty-one per cent of those receiving treatment for drug dependence in a Delhi hospital in 1984 were dependent on heroin. The report also observed that heroin was generally inhaled.

Discussion in the report about trends begins by noting that "a large increase in the abuse of all types of drugs was reported" (UNDCP, 1995, page 41), and approaches its conclusion with the comment, "Drug injection is increasing in India" (UNDCP, 1995, page 42). In the North-Eastern states of Manipur, Mizoram and Nagaland, "it is estimated that between 1 and 2% of the general population inject drugs" (UNDCP, 1995, p. 42). It goes on to indicate that in cities such as Delhi, Bombay and Madras injecting drug use has only been "noticed". Outside of the North-Eastern states, the largest number of injecting drug users observed since 1990 was 120 people injecting Tidigesic (buprenorphine) in Chennai. The report considered injecting drug use to be "relatively insignificant" in the major cities because only small percentages of opiate users are currently injecting. It concluded that "very few abusers using heroin resort to injecting" (UNDCP, 1995, p. 42).

Opiates form the major drug category used in India. Government funded centres report "37% of single abusers as opiate addicts" (UNDCP, 1995, p. 1). Opium is traditionally used in several states like Rajasthan, Madhya Pradesh, Punjab and Orissa. Extensive use of heroin has been reported in major cities including Delhi (UNDCP, 1995). A study in 33 cities found that among those who used drugs, there was a high proportion of males (96.5%) (UNDCP, 1995). While drug use is

predominant among the 18–25 year age group, traditional drug use is found in the older population. Married drug users (68.5%) far outnumber unmarried users, and drug users mostly belong to lower and middle income groups (UNDCP, 1995).

In Delhi, hospital data indicate a 60% increase in the demand for drug treatment during 1980 and 1984, which is attributed to increased availability of heroin due to transit traffic. The emergence of brown sugar (smack) in the market led to an increase in its addiction among the low income group (Jiloha and Sain, 1992). There has been an increase in drug injection in India, especially in the injection of buprenorphine, in several states (INCB, 1995, 1996). Alongside this, there has been an increase in the prevalence of HIV among injecting drug users reported at 38.4% for 1991 (UNDCP, 1995).

We found that the available literature provides sketchy and sometimes conflicting information on injecting drug use in the major cities. This lack of data has proved to be a hindrance in the design of effective treatment and HIV prevention activities. Until 1997, strong denial has persisted among decision makers of the existence of IDU beyond the north-eastern states in India, going so far as to call it negligible and insignificant. Our review of the literature emphasised that current data are inadequate on injecting drug use outside the north-eastern states of India, and that situational assessment is required to redress this.

### *3.2. Drug injecting situation*

The universal finding was that in the last few years injecting drug use has become far more visible and that the numbers of IDUs are increasing. The main drugs injected were heroin (brown or white), and pharmaceutical products tidigesic and norphin (buprenor-

phine), avil (chlorpheniramine maleate), valium and calmose (diazepam), proxyvon (dextropropoxyphene), fortwin (pentazocine) and phenargan (promethazine). The assessment indicated that a gram of heroin usually costs between Rs 200 and 400. Those inhaling heroin spent an average of Rs 150 daily, while pharmaceutical injectors spent an average of Rs 50–60 per day.

The findings from Imphal and Mumbai show that heroin in its various forms (white powder and brown sugar) is the most popular injectable drug used by IDUs, and that this may reflect the regular supplies available in these two cities. While in Imphal, white heroin (locally known as No. 4) from the Golden Triangle region is available, in Mumbai there is a continuous availability of good quality brown sugar, either made locally in India or from the Golden Crescent Region. In both these cities, most IDUs inject heroin but switch to pharmaceutical products when the availability drops. In Mumbai heroin injectors cooked up the heroin with avil (chlorpheniramine maleate) for increased effect with the belief that avil removed impurities in the heroin. Also, to break down the brown sugar either tablets of vitamin C (Celin) or a few drops of lemon juice was used.

In Calcutta, Chennai, Delhi and Mumbai, the majority (90%) of IDUs inhaled brown sugar before switching to injecting. Whereas large proportions (between 15 and 50%) of former heroin inhalers had switched to injecting in these sites, in Imphal drug injecting has, and continues to be, the predominant mode of intake. The assessment suggests that rising cost, decreased availability and decreased quality of available heroin has contributed to the increase in the numbers of injectors.

The use of cocktails of tidigesic, avil or phenargan and diazepam was common, espe-

Table 2  
Estimated number of IDUs, HIV seroprevalence and drug treatment availability

City	Number of IDUs	HIV seroprevalence	Treatment slots
Imphal (Manipur State)	9000–12000 15 000–20 000	80.70% (State AIDS Cell, 1997)	165
Chennai	10 000–15 000	15–19.5% (Kumar et al., 1997)	300
Mumbai	38 000 (mean)	7.43% (State AIDS Cell, 1998)	300
Calcutta	10 000–15 000	2% (State AIDS Cell, 1998)	200
Delhi	25 000–30 000	44.5% (SHARAN, 1999)	350

cially in Delhi, Chennai and Calcutta. In Chennai, a vocabulary exists for such combinations which are known as “CAT” (Calm-*pose*, *Avil*, *Tidigesic*; see also Kumar et al., 2000). A major difference between the findings reported from Imphal in comparison to other sites was that pharmaceuticals such as dextropoxophene, buprenorphine and pentazocine were usually injected when heroin was not available. Yet in Imphal, there are very few users who permanently switch to these substances as in the case of Delhi, Calcutta and Chennai.

Table 2 summarises the estimated number of IDUs in each of the five cities, alongside existing data on HIV seroprevalence among IDUs, and the available drug treatment slots for IDUs. Seroprevalence among IDUs is estimated to be in the region of 80% among IDUs in Imphal (Manipur state) and near 45% in Delhi, while we have upper estimates of between 15 000 and 30 000 IDUs for Calcutta, Chennai and Delhi.

### 3.3. Risk situation

Most IDUs used the same needle and syringe repeatedly. Despite the fact that needles and syringes are relatively inexpensive and freely available in pharmacies, they were not affordable to IDUs. The sharing of injecting equipment (needle sharing) was extremely high in spite of having some knowledge of

adverse consequences such as HIV/AIDS, hepatitis or abscesses. Such sharing was associated, in some cases, with withdrawal. As one Delhi drug injector commented: “When I’m sick I can’t be careful”. But sharing was also sometimes associated with a more general attitude of invulnerability to harm. As was indicated by one IDU in Delhi: “I have not seen any injector suffering from AIDS — so I don’t care”. As another injector from Imphal commented: “I no longer care if I share. In spite of having knowledge about HIV and fear, we land up sharing”. Awareness about how to clean injecting equipment was low, as were the numbers of IDUs who attempted to decontaminate their injecting equipment before use.

Except for Imphal where 7% of IDUs were women, the majority (95%) of drug injectors were males who were also sexually active and had unprotected sex. In Delhi, for example, 94% were sexually active and 77% had never used condoms, while in Chennai 84% had had sex in the past year and 59% had not used condoms during their last sexual encounter.

Overdose deaths among IDUs were said to be increasing, particularly among those injecting a cocktail of drugs. This is captured by the words of one drug injector interviewed in Delhi: “Nowadays all the people are getting into injecting as it is cheaper and easily available but by injecting people are dying

faster". Rates of overdose were found to be especially high in Imphal, and were also found to be associated with detoxification and relapse, where "recovered" heroin users would relapse and overdose.

In the entire country, only two substitution programmes using sublingual buprenorphine exist, both of which are located in Delhi. A key finding of the assessment was that almost all available treatment slots for drug dependency were abstinence-oriented and fell far short of the actual need that exists. In addition, most IDUs did not access such treatment as they found them expensive, unwelcoming, and inaccessible. Indeed, most IDUs were not aware of the treatment facilities available in their city. One such typical response was as follows: "I have never been for treatment to give up drugs and I don't know any place where there is treatment". We found, therefore, a need for harm reduction programmes to focus on issues of HIV prevention and for interventions to address the range of HIV-related risk behaviours common among IDUs.

#### **4. Assessment impact and dissemination**

This assessment is the first time in India that more than 100 drug treatment and HIV intervention providers came together to assess and review the current injecting drug use situation. Through the RSA dissemination workshop process, a better understanding of the magnitude and nature of injecting drug use was gained, leading to a clearer vision of intervention needs and future developments in prevention and treatment programs.

The RSA documented the emergence and growth of injecting drug use in Indian cities outside of the north-east. It has documented the findings of research and program reports and has shown earlier beliefs that IDU was

confined to the north-eastern States to be incorrect. Through the RSA and workshop process, it is concluded that IDU is much more widespread in India than previously assumed and that some cities may have greater numbers of IDUs than the whole of Manipur State.

##### *4.1. Community impact*

Through the RSA workshops, a process of community mobilisation of drug treatment agencies has occurred. Recommendations from all five cities suggest the urgent need to adopt a comprehensive spectrum of services to manage the issues of drug injecting, HIV and other related harms. Participants recognised that current drug treatment options available were limited to non-injecting behaviour and did not include HIV information and awareness as an integral part of drug treatment.

Though most participants were from an abstinence-oriented background, it was agreed that harm reduction programs need to be urgently implemented in all the cities on a large scale. The aims of such programs should be to prevent or limit the risks/harms related to injecting drug use, especially HIV, hepatitis B and C, and other blood-borne infections affecting IDU communities. However, there was a reluctance to accept the term "harm reduction" by some service providers, and it was suggested that "risk reduction" seemed a more acceptable definition.

It was also unanimously decided that drug use should not be considered a crime punishable by imprisonment, and that drug users who were arrested by the police should have the option of undergoing treatment. Further, injecting and other drug users should be provided with a wide range of treatment options including needle exchange, drug substitution

and maintenance, counselling, detoxification, rehabilitation, and outreach services. Treatment should cover the human rights issues of drug users. A network of drug treatment and HIV prevention programmes has been facilitated through the RSA workshops, leading to stronger links and referral support between programs in all five cities. In addition, in Delhi, Imphal, Mumbai and Chennai, leading national daily newspapers covered the workshops and reported the event in the media, thereby widening the focus and coverage beyond treatment and interventions to raising the awareness of the general population.

#### *4.2. Policy impact*

Previously under-documented high levels of HIV infection among injecting drug users emerged through the RSA and workshop process. For example, in Mumbai the State AIDS Cell informed a seroprevalence of 7.4% among IDUs. Similarly, the Chennai and Imphal prevalence rates provided the impetus for agencies to take the issue of HIV among IDUs much more seriously. Furthermore, commitments were made by City and State Governments and AIDS Control Societies to fund ongoing research and program development.

For the first time, the National AIDS Control Organization (NACO) Policy document of 1999 has included Mumbai, Calcutta, Chennai and Delhi as cities with substantially large numbers of IDUs at risk of HIV infection (NACO, 1999). This was due to information contained in the RSA reports that was submitted to NACO and UNAIDS, who part-funded the workshops. The policy document also recommends the initiation of harm minimization and risk reduction activities targeted at IDUs. As is detailed with document on HIV associated with injecting drug use:

Government therefore considers it as a serious issue and is committed to adopt the appropriate strategies for preventing the risk of transmission through injecting drug use... The most appropriate strategy... would be the Harm Minimisation approach which is now being accepted worldwide as an effective preventive mechanism... Government will encourage NGOs working in the drug de-addiction area to take up harm minimisation programmes as part of the HIV/AIDS control strategy in areas which have a large number of drug addicts (NACO, 1999, paragraph 5.10).

In addition, the National Institute of Social Defense, a training and research wing of the Ministry of Social Justice and Empowerment (formerly the Ministry of Welfare), who are responsible for funding over 300 drug treatment programmes countrywide, have given greater recognition of the problems associated with the emergence of IDU and HIV as a consequence of the RSA. Staff from SHARAN now conduct regular training programmes in harm reduction methods to the drug treatment programme staff.

Furthermore, and as a consequence of the RSA, a European Union funded programme has been initiated by SHARAN in the same five cities. The components of this programme are needle and syringe exchange, buprenorphine substitution, community-based drug user groups and newsletters, training, and technical support for harm reduction activities. The programme operates from eight drop-in centres in the five cities and covers a total of 1500 IDUs and their sexual partners.

#### *4.3. Research impact*

The method of rapid assessment has gained

acceptability among Indian researchers and drug treatment providers as an appropriate tool for quickly assessing the magnitude and nature of injecting drug use. There were few disagreements on the RSA methodology employed, though workshop participants were unanimous that more research was needed, thus paving the way for further assessments. Following the dissemination, funding for a follow-up five-city rapid assessment during 1999 was secured from UNESCO by SHARAN. This second wave assessment will identify the gaps in the 1998 RSA leading to improvements in the implementation of RSA methodology and to a more comprehensive assessment as a result.

## 5. Conclusion

There have been no attempts in India to determine the extent of injecting drug use through a comprehensive methodology. This is despite the reality that HIV and hepatitis B and C have been widely identified among the injecting populations (Kumar et al., 1997; Panda and Chatterjee, 1997). In response to this need, SHARAN implemented a rapid situation assessment in five major cities. The method employed the review of secondary data (including a literature review), interviewing key informants (including ex and current drug users), and the development of matrices to standardise data collection and reporting. Training was conducted with field research staff and others involved in the implementation plan, and the assessment process was disseminated among a variety of groups, including community and policy agencies, in the five cities.

We found that undertaking the process of assessment — from design of the method to

report writing — was not as ‘rapid’ as originally envisaged. The availability of funding is also critical here. In addition, we found that the implementation process revealed major gaps in the RSA methodology, showing that the original method did not take certain factors into consideration. First, there may not be enough secondary data to give a comprehensive description of drug use in the city. Second, we found the secondary data available to be very subjective and anecdotal, thus limiting its usage. Third, the populations to be assessed may be so large as to be unmanageable. Fourth, the literacy levels of clients interviewed may be very low, thus reducing their capacity to project estimates. Fifth, there was often not a sense of co-operation and collaboration among the groups involved in the assessment process. Lastly, the response envisaged at the end of the RSA needed collaboration and ownership from the outset so as to arrive at future collaborative intervention design.

We found that the overall impact of the RSA was significant, eventually being responsible for the endorsement of the recognition of injecting drug use in four major cities in India, leading towards the provision of needle exchange and substitution programs in those cities. Prior to the RSAs, the only IDU interventions developed by the Government were focused on the north-eastern States. Manipur, a state often stigmatized for high prevalence of IDU and as the AIDS capital, had endorsed piloting needle exchange programmes since 1996. In this respect, one key outcome of the assessment was the endorsement of IDU across India by the NACO in their Policy Document for 1999 (NACO, 1999). As detailed in the report: “The problem of injecting drug use through needles has emerged as a serious problem, firstly in Ma-

nipur and other North-eastern States, and in metropolitan cities like Mumbai, Chennai, Calcutta and Delhi". It further led to the endorsement of SHARAN as an agency with the capacity to train officials in the drug treatment business, and to provide input on further policy development. It was also well received in general by drug service providers, who were interested in approaches in the management of HIV among their clients.

In conclusion, rapid assessment is an effective tool for advocacy and the improvement of treatment services. It also provides insights into drug using scenarios and developing trends which may be key to the prevention of evolving epidemics. RSAs also provide an indication of the gaps which exist in essential routine data systems, and have the potential to fill these gaps. There is no escape from the reality that the information generated by RSA is essential to bring about the big picture. This facilitates viewing the epidemic of HIV in terms of the management of new infections among drug injectors and their sexual partners.

This implies that the processes employed and the instruments developed will have to take into consideration that simplicity will empower voluntary organisations and government players alike, and shift the research from highly-skilled professionals to those working at street-level, where ongoing assessment is most needed. The experience of the RSAs conducted has shown the value of street-level research in terms of the identification of new trends and the comprehensive approach to collaboration. Additionally, this approach recognises the role of practitioners in the research process, and empowers grass-roots workers to participate in it. Lastly, the principle of linking intervention responses to RSAs is perhaps the selling point for the methodology. In this particular circumstance, the RSAs highlighted gaps in intervention

logic by presenting an epidemiological perspective to key players. The response in each of the locations proved to be a focus for networking, capacity building and a stimulus for a comprehensive drug treatment plan for the cities involved.

## References

- Basu D, Varma VK, Malhotra AK. Buprenorphine dependence: a new addiction in India. *Disabilities Impairment* 1990;3:142–6.
- Bhardwaj A. Self injecting of drugs gains popularity in Punjab, *The Times of India*, 30 July 1995.
- Biswas S. Hooked to a new high. *India Today*, April 1994.
- Chatterjee A, Panda S. Rapid Situation Assessment of Drug Use, Drug Injecting and HIV Risk among Drug Users in Calcutta City and Neighbouring Areas, 1998 (unpublished report).
- Chowdhury AN, Chowdhury S. Buprenorphine abuse: a report from India. *British Journal of Addiction* 1990;85:1349–50.
- Dorabjee J. IDU Reports 1994. Delhi: Sharan Archives (unpublished reports).
- Dorabjee J, Samson L. Self and community-based opioid substitution among opioid dependent populations in the Indian sub-continent. *International Journal of Drug Policy* 1998;9:411–6.
- Dorabjee J, Samson L, Kaplan CD, Wodak A. Intervencion con buprenorfina para abusadores de narcoticos en Delhi (India). *Acta Colombiana De Psicologia* 1998a;1:63–70.
- Dorabjee J, Samson L, Sarin E, Mehra D, Singh S, Mishra M, Burrows D, Manning G. Rapid Situation Assessment of Injecting Drug Use in Delhi. Draft Report, 1998 (unpublished report).
- INCB, 1995. Report of the International Narcotics Control Board (INCB) (paragraphs 282 and 285), 1995.
- INCB, 1996. Report of the International Narcotics Control Board (INCB) (paragraphs 278 and 280), 1996.
- Indian Council of Medical Research, 1992–1995. Unit for Research on AIDS in NE States of India, Calcutta. Project Reports, 1992–1995 (unpublished reports).
- Jiloha RC, Sain B. *From Drug to Dragon: A Challenge to Society*. New Delhi: Mittal, 1992.

- Kumar MS. A study of buprenorphine abuse in Madras City, India. Research Monograph on Drug Abuse and HIV/AIDS. Chennai: SAHAI Trust, 1997.
- Kumar MS, Daniels D. HIV Risk Reduction Strategies Among IDUs in Madras. New Delhi: Caritas India, 1994.
- Kumar MS, Mudaliar S, Daniels D. Designing, developing, implementing and evaluating HIV interventions for injecting drug users. Research Monograph on Drug Abuse and HIV/AIDS. Chennai: SAHAI Trust, 1997.
- Kumar MS, Mudaliar S, Daniels D, Rajkumar R, Kumar MS. Rapid Situation Assessment of Injecting Drug Use in Chennai. Summary Report, 1998 (unpublished report).
- Kumar MS, Mudaliar S, Thyagarajan SP, Kumar S, Selvanayagam A, Daniels D. Rapid assessment and response to injecting drug use in Madras, south India. *International Journal of Drug Policy* 2000;11:83–98.
- Ministry of Health and Family Welfare. Report on the High Risk Behaviour Study — Coordinator Trainings, National AIDS Control Organisation, Ministry of Health and Family Welfare. Delhi: Government of India, 1994.
- Ministry of Social Justice and Empowerment. The National Institute of Social Defense. Institute for Research and Training on Drug Abuse. Ministry of Social Justice and Empowerment. Delhi: Government of India, 1999.
- Mudaliar S, Kumar MS. Comparative analysis of HIV, sexual and substance use risk behaviours among injecting heroin users and buprenorphine users in treatment programs. Research Monograph on Drug Abuse and HIV/AIDS. Chennai: SAHAI Trust, 1997.
- The National AIDS Control Organisation (NACO). The National AIDS Prevention and Control Policy Document (Draft). Delhi: Government of India, 1999.
- Naik TN, Sarkar S, Singh HL, Bhunia SC, Singh YI, Singh PK, Pal SC. Intravenous drug users: a new high-risk group for HIV infection in India. *AIDS* 1991;5:117–8.
- Nizamie SH, Sharma LN. Buprenorphine abuse, a case report. *Indian Journal of Psychiatry* 1990;32:198–200.
- Panda S, Chatterjee A. Injecting drug use in Calcutta: a potential for an explosive HIV epidemic. *Drugs and Alcohol Review* 1997; 16.
- Panda S, Chatterjee A, Bhattacharjee S, Ray B, Saha MK, Bhattacharya SK. HIV, hepatitis B and sexual practices in street recruited injecting drug users of Calcutta — risk perception versus observed risks. *International Journal of STD and AIDS* 1998;9:214–8.
- Rajkumar V, Sharma U, Dorabjee J. Rapid Situation Assessment on Trends and Behavioural Shifts among Drug Users in Imphal, Manipur, 1998 (unpublished report).
- Sarkar S, Mookerjee P, Roy A, Naik TN, Singh JK, Sharma AR, Ibotombi SY, Singh PK, Tripathy SP, Pal SC. Descriptive epidemiology of injecting drug use. *Journal of Infection* 1991;23:201–7.
- Sarkar S, Das N, Panda S, Naik TN, Sarkar K, Singh BC, Ralte JM, Aier SM, Tripathy SP. Rapid spread of HIV among injecting drug users in north-eastern states of India. *Bulletin on Narcotics* 1993;XLV:91–105.
- Singh RA, Mattoo SK, Malhotra A, Varma VK. Cases of buprenorphine abuse in India. *Acta Psychiatrica Scandinavica* 1992;86:46–8.
- Tellis E. Preliminary Assessment Report of the Injecting Drug Use Situation in Mumbai, 1998 (unpublished report).
- The Times of India, New Delhi, April 7, 1999.
- United Nations Drug Control Programme (UNDCP) and the Government of India. Drug Abuse: Consequences and Responses. India Drug Country Report (IDCR). Welfare Sector. Delhi: UNDCP and the Government of India, 1995.
- World Health Organization. Rapid Assessment and Response Guide on Injecting Drug Use (draft for field-testing). Geneva: WHO, 1998.
- World Health Organization and United Nations Joint Programme on HIV/AIDS. Rapid Assessment and Response Guide on Sexual Behaviour Associated with Substance use. Geneva: WHO/UNAIDS, 1998.