

## **The role of rapid assessment methods in drug use epidemiology**

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### **ABSTRACT**

*“Rapid assessment” methods have the potential to generate important public health information that can be used with monitoring, surveillance and other available data systems to develop intervention programmes. That potential is now the subject of discussion within the field of substance use. First emerging in the early 1990s, the last three years have seen the approach endorsed as an expedient method for profiling drug-related problems, mobilizing human immunodeficiency virus (HIV) prevention efforts, initiating policy change and service reorientation and, more recently, as a potential component of “second-generation” surveillance. In the present article, the authors consider the role of rapid assessment in generating knowledge for public health action and, more specifically, the relationship between rapid approaches and the cornerstone of public health science, epidemiology. Drawing on case studies and examples, the authors propose that rapid assessment is best understood not as a new method, but as a practical convergence of existing research and intervention traditions (including field epidemiology and anthropology). Six roles for rapid assessment in either informing or complementing drug use epidemiology are outlined: (a) in information poor situations; (b) as a means of informing ongoing monitoring; (c) optimizing community involvement; (d) informing quantitative research; (e) questioning quantitative research; and (f) as a tool for responding to emerging health problems.*

*Keywords:* rapid assessment; epidemiology; drug use; surveillance; developing countries; intervention; anthropology; community development.

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### **Introduction**

“Rapid assessment” methods have the potential to generate important public health information that can be used with monitoring, surveillance and other available data systems to develop intervention programmes. Drawing on both qualitative and quantitative research techniques, such assessments are typically undertaken in situations where data are needed quickly, where local resource

constraints rule out more conventional research approaches and where agencies require information to develop, monitor and evaluate intervention programmes [1].

The potential of rapid assessment is now the subject of discussion within the substance use field. First emerging in the early 1990s, the last three years have seen the approach utilized by national, international and United Nations agencies as an expedient method for profiling drug-related problems [2-4], mobilizing human immunodeficiency virus (HIV) prevention efforts [5-8], initiating policy change and service reorientation [9-11], and, more recently, as a potential component of "second-generation" surveillance [12-13]. This interest has manifested itself in the method's global diffusion (with documented use in 70 countries) [14] and in attempts to systematize and refine the methodology through the production of various field guidelines [5, 6, 8, 9].

However, despite that activity, there is much that is not known about rapid assessment. Elsewhere previously unavailable data are presented on the known number, composition, and outcomes of rapid assessments on substance use [14]. In the present article, the role of rapid assessment in generating knowledge for public health action is reviewed and, more specifically, consideration is given to the relationship between rapid approaches and the cornerstone of public health science, epidemiology.

To achieve this, the article addresses two key questions: (a) what is rapid assessment?; and (b) what is its potential role within drug use epidemiology?

### **Rapid assessment: method**

Rapid assessment is not a new method. The approach has evolved as a practical convergence of different research and intervention traditions. Among the most important of these are "field epidemiology", anthropological research, community development and formative research.

### **Field epidemiology: rapidity and response**

Field epidemiology represents a core methodological foundation for rapid assessment in the field of substance use. Typically employed in the investigation of outbreaks of infectious disease [15, 16] and in the formulation of post-disaster intervention programmes [17, 18], Bammer and others propose that the process can be encapsulated in 10 steps [19]:

- (a) Determine that there is a problem;
- (b) Confirm the problem is correctly described;
- (c) Define what constitutes having a problem and what data need to be collected to respond effectively and estimate the numbers affected;
- (d) Orientate the data in terms of time, place and person;

- (e) Determine the risk factors and who is at risk of developing the problem;
- (f) Develop a hypothesis explaining why the problem has emerged and test this by appropriate statistical methods;
- (g) Compare the hypothesis with the established facts;
- (h) Plan a more systematic study that includes data collection to guide action;
- (i) Prepare a written report with options for action;
- (j) Plan and execute control and prevention measures.

Such steps reflect the basic processes and principles underpinning a rapid assessment (although, as mentioned below, they are typically supplemented with additional techniques).

Firstly, owing to external time and resource pressures, the speed of assessment and response is necessarily accelerated [17]. Within the field of drug use the continued occurrence of HIV epidemics among injecting drug users has been a key driving force in the emergence of rapid assessment. As Friedman and Des Jarlais pointed out over a decade ago, once HIV prevalence among intravenous drug users (IDUs) reaches 10 per cent, without intervention it can then surpass 40-50 per cent in between one and four years [11]. Acting quickly to minimize risk in order to prevent harm is a fundamental feature of the logic of the public health movement and rapid assessment approaches have been promoted as one of the methods of achieving those aims. Consequently, both field epidemiology and rapid assessment studies aim to adopt pragmatic and streamlined methodological designs. In practical terms, this means that an ongoing trade-off is made between analytical depth and rapidity. In both approaches, priority is typically given to establishing a basic description of the problem in order to allow initial decisions about response development to be made, rather than implementing sophisticated (and more lengthy) methodological designs. Significantly, this does not mean that conventional research techniques, protocols and standards are discarded. Instead, those basic techniques are adapted and reformulated in the light of the often difficult and "resource-poor" settings in which assessments are conducted.

Secondly, the central aim of both field epidemiology and rapid assessment approaches is to initiate intervention responses, rather than for knowledge generation itself. As Glass and Noji note [17]:

"The success of the ... investigation ... can be measured directly by how rapidly data collected and analysed can identify prevention strategies, and how effectively these strategies can then be implemented by decision makers to direct relief and decrease ongoing mortality."

Arguably, rapid assessment's utility is therefore evaluated both on its ability to inform effective response development as well as on methodological rigour.

Recent evaluation studies of rapid assessment in the field of substance use underscore the method's ability to quickly produce systematic data that can be used in response development. A review of 12 different methodological guidelines

on “drug” rapid assessments indicate that most assessments should take no longer than 12-16 weeks, while data retrospectively collected on 83 rapid assessments suggest an average study length of 18 weeks [14]. Typically employing multi-method approaches, the majority of studies are also reported as resulting in the development of a range of intervention responses [14].

### **Anthropology: meaning and context**

Field epidemiology represents a core methodological foundation for rapid assessment in the field of substance use. However, as with any method, the approach also has limitations. As recent discussion acknowledges [20, 21], one limitation lies in the extent to which measures of the social and cultural contexts in which substance use, risk behaviour and HIV infection take place can be captured in epidemiological assessments. The importance of “situating” epidemiological research in the social and cultural context of health behaviours and problems has been met through numerous initiatives [22, 23]. However, within rapid assessment, two significant contributions have been made by anthropologists interested in developing “short-cut” approaches to accumulating social knowledge.

Firstly, the work of the Latin American Centre at the University of California at Los Angeles in the early 1980s began making strides towards adapting traditional ethnographic research techniques [24-26]. Working at a time when increasing interest among policy makers in capturing the social context of health behaviours was tempered by frustration with the time-scale required to produce that knowledge, researchers adapted techniques such as observation, in-depth interviews, mapping and group discussion so that they could be readily applied. Importantly, those methods did not aim to achieve the analytical depth of intensive anthropological studies, but traded this off against the rapid production of basic situational descriptions.

Secondly, the same period witnessed the development of various field manuals and guidelines on how to undertake rapid assessments [27-33]. Rapid assessments had previously been relatively uncodified and frequently reflected the disciplinary interests and skills of the investigator. The development of these simple “road maps” [34] to social knowledge provided a reference point for assessment design and allowed assessments to be undertaken in areas where a lack of trained social scientists had meant that opportunities to profile and respond to health problems had either not been fully exploited or were based upon conventional survey methodologies. The simplified research protocols contained within the guidelines for rapid assessment procedures allowed such work to take place and arguably contributed to an element of technology transfer.

### **Community development and formative research: participation and action**

Rapid assessment has also evolved as a mode of “community development” and “community diagnosis”. Popularized in the late 1970s, those approaches

emphasize that the efficacy of assessment of welfare problems, and of the interventions developed in response, not only depend on knowledge of local situations and community practices, but also require the active participation of local communities in the research and intervention process. “Rapid rural appraisal” provides an example [35]. Here, rapid assessment is envisaged as a mode of community organization and change, and not merely “top-down” research promoted by “outside” experts.

Rapid assessment has also featured as part of the development of local interventions through programmes of “formative research” and “needs assessment”. The aim of such research is to identify the interests, attributes and needs of different populations within a community (primarily those people likely to use the intervention, but also other groups with a stake or concern in the response) and to develop interventions that both meet those needs and are culturally acceptable and feasible. Importantly, such programmes are set up either prior to the design or implementation of an intervention or they are used to refine and fine-tune the intervention while it is being conducted.

### **Emergence in the substance use field**

As described above, rapid assessment approaches represent a convergence of experience and techniques derived from different research and intervention traditions. Taken together, those approaches emphasize the importance of:

- Rapidity
- Pragmatism, simplicity and adaptation
- Using multiple methods and data sources
- Hypothesis testing, but remaining open to new discoveries (induction)
- Understanding individual behaviour in terms of local meaning and context
- Optimizing community participation
- Undertaking research that leads to local action and intervention

However, it is important to note that, while rapid assessment draws on various disciplines, the resulting composite does not represent a superior “meta-methodology” that overcomes and supersedes the limitations of individual disciplines. Instead, rapid assessment acts less as a substitute for in-depth research and more as a tool for generating basic knowledge and initiating prevention activity.

### **The role of rapid assessment**

Currently, rapid assessment has a low profile among public health and scientific audiences. This has been a consequence of the approach prioritizing the generation of knowledge for local action, rather than for publication in peer-reviewed

journals. The present authors argue that rapid assessment should be given a more central role in public health data collection and in this section outline six potential contributions it could make.

### *In "information-poor" situations*

In the absence of data from previous research or surveillance systems, rapid assessment can be used to generate descriptions of the extent and nature of local substance use. One example of this is provided by a series of rapid assessments conducted in India in 1998 [36]. Despite few existing data sources and governmental denial of the problem of IDU, researchers in five Indian cities undertook rapid assessments with the dual aims of bringing attention to the problem and also of highlighting the resources necessary to respond to it. Significantly, that assessment did not represent a "one-off" and instead provided a base from which further research was undertaken, with rapid assessments being undertaken in 1999 in the same five cities (plus five additional locations) with a view to filling gaps in a now growing knowledge base [36].

### *Informing ongoing monitoring*

Rapid assessment can make an important contribution to drug monitoring systems. Monitoring systems draw on the routine collection of data to provide an ongoing description of trends in health behaviours and their adverse health consequences. However, such monitoring can fail to deliver information of practical relevance. Routine systems for the monitoring of substance use generally identify "new" drug problems long after they first emerge. Usually located in drug treatment, medical care or criminal justice agencies, they only cover people who make contact (who are a selected minority of drug users) and there is a considerable time lapse between new drug trends and related agency contact. The use of fixed data fields, while essential for the routinization of data collection and analysis, can also mean that subtle changes in drug use, as well as new forms, can be missed.

Periodic rapid assessment studies may overcome some of these shortcomings. Through multi-method assessments conducted with users and substance use professionals, descriptions can be generated of current drug use situations, contributing to the revision of data collection procedures, providing an early warning of drug problems on the horizon and locating trends within the broader socio-economic context. Although similar systems are in operation in countries such as Australia [37], they currently do not go beyond sentinel surveys and existing data analysis.

### *Involving the local community*

Community endorsement is key to effective research and intervention programmes. Work undertaken in Madras, India, in 1998 provides an example of how rapid assessments can initiate and optimize local participation. The assessment

emphasized the importance of not only soliciting local opinion, but also formalizing this in a Community Advisory Body, which would meet regularly to help plan, undertake and act on the results of the research. The body consisted of 20 members, including, a Catholic priest, a community worker, a pharmacist, an elected political representative, a leader of the Ambedkar Movement, a representative of the fishermen's association and representatives of the community council. The community board was assisted by a small group of technical experts in the field of drug use and acquired immunodeficiency syndrome (AIDS) and the decision-making process was seen entirely as negotiations around priority issues for assessment and intervention [38]. Although it was recognized that such collaboration required careful facilitation, the assessment was used not only as a vehicle for data collection, but also as a focal point for incorporating multisectoral input and action.

### *Informing quantitative research*

Rapid assessments aim to complement and inform longer-term research design. An example of this is the use of such assessments within the WHO Phase II Drug Injecting Study. The WHO Drug Injecting Study is a comparative study of drug injecting behaviour and health and social consequences in 14 developing countries and countries with economies in transition. The aim of the study is to produce information on drug injecting behaviours that can inform regional and national policy and practice and data from phase I have resulted in important epidemiological, prevention and policy advances [39].

Importantly, the study has employed a design that links rapid assessment and epidemiological survey approaches. This has involved rapid assessments in collecting both behavioural data through qualitative methods and describing the context in which research was conducted and the use of survey methodology to provide descriptions of drug use behaviours in populations of injectors both in and out of contact with treatment agencies. Data from the rapid assessment have been used to enhance the design of locally relevant questions for inclusion in the cross-sectional survey, inform sampling design (including possible recruitment locations), win the support of influential professional and community leaders and provide data based on which epidemiological analysis could explain key findings.

### *Questioning quantitative research*

Rapid assessment can also be used to question and explore the findings of quantitative research. As noted earlier, assessments can be undertaken that seek to "unpack" some of the social and cultural factors underpinning statistical trends in substance use. One example of this has been the Rapid Assessment Response and Evaluation (RARE) programme conducted in 11 metropolitan cities of the United States of America between 1999 and 2001 [40]. The catalyst for the study was data from routine surveillance indicating that HIV infection rates in each city were

disproportionate among ethnic minority groups. However, there were no clear indications why this was the case. In response, each site employed a combination of geo-social mapping techniques (to physically describe the layout of drug “hotspots”), interviews with users and cultural experts, extended observations (often over 24-hour-long periods) and street interviews to explain the cultural and social reasons for the statistical relationship [41] and on the basis of these to identify appropriate interventions. This adopted an inductive approach to hypothesis testing, where key research questions were identified prior to assessment but were both refined as data were collected and those questions were supplemented by additional questions as new discoveries were made.

### *Responding to emerging health problems*

Finally, although rapid assessment can play important roles in relation to conventional epidemiological research, this approach also represents an important tool in its own right for profiling and responding to rapidly emerging public health problems.

An example of rapid assessment being employed to quickly mobilize resources to assess and respond to emerging drug use problems is provided by work undertaken by Care Bangladesh. In December 1998, an IDU harm-reduction strategy was launched in Dhaka. The programme encountered significant risk behaviours among IDUs prompting concern about the potential for wide-scale spread of HIV infection among drug injectors in Dhaka and elsewhere in Bangladesh [42]. Consequently, in January 1999, rapid assessments were undertaken in Dhaka, six other cities in Bangladesh and five smaller areas with the aim of documenting drug using behaviours and establishing how limited prevention resources could be best allocated. Completed over a period of six weeks, the assessments employed interviews with 82 substance use professionals, 113 “formal” user interviews, several hundred “informal” user interviews and targeted observation studies. They revealed that the potential for HIV diffusion among IDUs was pronounced in the northern region of Bangladesh and that there was particular need in the city of Rajshahi (in which resources were subsequently concentrated). This example underscores not only the rapidity with which rapid assessments can be mobilized, but also the ability of assessments to produce comparative data across multiple sites for use in intervention development decisions.

A further example of intervention development also underscores the importance of accepting the process of rapid assessment as the beginning of the response itself. Rather than envisioning a chain of activities of which intervention development is the final link, rapid assessments emphasize the importance of introducing interventions at any stage of the assessment if there is sufficient evidence for action. Conducted in Sydney, Australia, in 2000 the project aimed to strengthen the capacity of service providers to better respond to the health needs of IDUs from non-English-speaking backgrounds, with particular emphasis on prevention of hepatitis C virus [43]. During the project it was found in focus groups that Spanish-speaking injectors had limited knowledge about the routes of

transmission of HIV and hepatitis C virus. Consequently, in the week following the focus group, the research team organized a number of health education sessions with that population of injectors.

## Conclusion

In the present article, it has been suggested that rapid assessment provides a means of undertaking multi-method research in time- and resource-poor situations. Representing a practical convergence of different research and intervention traditions, rapid assessments do not provide a substitute for long-term or in-depth studies, but instead offer a useful tool for establishing basic descriptions of substance use problems and initiating intervention development. Furthermore, six roles have been described in which the method is directly complementary to conventional epidemiological research.

It is important to recognize, however, that rapid assessments also have their limitations. Simple research questions, relatively small sample sizes, the potential biases inherent in becoming both observer researcher and interventionist actor and an ongoing trade-off between rapidity and analytical depth mean that assessments have to walk a careful line between being expedient, pragmatic and informative and being simply “quick, practical—and wrong” [44].

However, perhaps the greatest constraint currently placed upon rapid assessment studies is their low profile among scientific and public health audiences. The consequence of the approach prioritizing the generation of knowledge for local action, rather than for publication in peer reviewed journals, compounded by the relatively few platforms in which such accounts could be published, means that rapid assessment faces a trinity of obstacles: countering the assumption that the approach’s low public profile is somehow representative of its public health contribution; avoiding the danger of an inward-looking discipline, where practitioners unknowingly replicate the previous endeavours of others and fail to learn from past experience; and developing a coherent account of its emergence and development in the substance use field. To overcome those obstacles, rapid assessment practitioners face what is perhaps their greatest challenge: introducing a culture of learning, reflection and discussion into a methodology primarily premised on rapidity and pragmatism.

## References

1. L. Manderson, *Population and Reproductive Health Programmes: Applying Rapid Anthropological Assessment Procedures* (New York, United Nations Population Fund, 1996).
2. H. Riper, “Quick Scan: recreational drug use, clubbing and prevention”, unpublished document, 2001.
3. F. Trautmann, “Rapid assessment on nature and extent of substance use among asylum seekers and refugees”, personal communication, 2000.

4. F. Trautmann, "Rapid assessment on nature and extent of substance use among asylum seekers and refugees", unpublished document, 2000.
5. J. Howard and others, *The Rapid Assessment and Response Guide on Psychoactive Substance Use and Especially Vulnerable Young People (EVYP-RAR)*, draft for field-testing (Geneva, World Health Organization, 1998).
6. G. V. Stimson, C. Fitch and T. Rhodes, *The Rapid Assessment and Response Guide on Injecting Drug Use*, draft for field-testing (Geneva, World Health Organization, 1998).
7. T. Rhodes and others, "Rapid assessment, injecting drug use, and public health", *Lancet*, vol. 354, 1999, pp. 65-68.
8. T. Rhodes, C. Fitch and G. V. Stimson, *The Rapid Assessment and Response Guide on Psychoactive Substance Use and Sexual Risk Behaviour* (Geneva, World Health Organization, 2002).
9. United Nations International Drug Control Programme, *Guidelines for the Development and Implementation of Drug Abuse Rapid Situation Assessments* (Vienna, 1998).
10. R. N. Needle and others, "Rapid assessment, response and evaluation (RARE): a public health strategy to reduce the impact of communities", National HIV Prevention Conference, 29 August-1 September 1999, Abstract No. 525.
11. D. C. Des Jarlais and S. R. Friedman, "HIV among drug injectors: the epidemic and the response", *AIDS Care*, vol. 3, 1991, pp. 239-250.
12. Tobi Saidel, "Behavioural surveillance surveys and rapid assessments: complementarities in addressing data needs for HIV epidemics among IDUs in Asia", Twelfth International Harm Reduction Conference, Delhi 2001.
13. D. C. Des Jarlais, K. Dehne and J. Casabona, "HIV surveillance among injecting drug users", *AIDS*, vol. 15 (suppl. 3), 2001, pp. S13-S22.
14. C. Fitch and G. V. Stimson, *An International Review of Rapid Assessments Conducted on Drug Use: A Report from the WHO Drug Injection Study Phase II* (Geneva, World Health Organization, 2003).
15. J. Giesecke, *Modern Infectious Disease Epidemiology* (London, Arnold, 2001).
16. M. A. Bellis and others, "Unexplained illness and deaths among injecting drug users in England: a case control study using regional drug misuse databases", *Journal of Epidemiology and Community Health*, vol. 55, 2002, pp. 843-844.
17. R. I. Glass and E. K. Noji, "Epidemiologic surveillance following disasters", *Public Health Surveillance*, W. E. Halperin, E. L. Baker and R. R. Monson, eds. (New York, Van Nostrand Reinhold, 1992).
18. R. Pearson and M. D. Kessler, "Use of rapid assessment procedures for evaluation by UNICEF", *Rapid Assessment Procedures: Qualitative Methodologies for Planning and Evaluation of Health Related Programmes*, Nevin S. Scrimshaw and Gary R. Gleason, eds. (Boston, Massachusetts, International Nutrition Foundation for Developing Countries, 1992), pp. 387-401.
19. G. Bammer, M. Beers and M. Patel, "The role of field epidemiology in the investigation of drug problems", *Drug and Alcohol Review*, vol. 18, 1999, pp. 329-31.
20. M. Susser and E. Susser, "Choosing a future for epidemiology: from black box to Chinese boxes to eco epidemiology", *American Journal of Public Health*, vol. 86, 1996, pp. 674-677.

21. M. Agar. "Recasting the 'ethno' in 'epidemiology'", *Medical Anthropology*, vol. 16, 1995, pp. 1-13.
22. P. Bourgois, "The moral economies of homeless heroin addicts: confronting ethnography, HIV risk, and everyday violence in San Francisco shooting encampments", *Substance Use and Misuse*, vol. 33, 1998, pp. 2323-2325.
23. P. Bourgois and J. Bruneau, "Needle exchange, HIV infection, and the politics of science: confronting Canada's cocaine injection epidemic with participant observation", *Medical Anthropology*, vol. 18, 2000, pp. 325-350.
24. S. C. M. Scrimshaw, "Adaptation of anthropological methodologies to rapid assessment of nutrition and primary health care", *Rapid Assessment Procedures: Qualitative Methodologies for Planning and Evaluation of Health Related Programmes*, Nevin S. Scrimshaw and Gary R. Gleason, eds. (Boston, Massachusetts, International Nutrition Foundation for Developing Countries, 1992), pp. 25-38.
25. R. Chambers, "Rapid but relaxed and participatory rural appraisal: towards application in health and nutrition", *Rapid Assessment Procedures: Qualitative Methodologies for Planning and Evaluation of Health Related Programmes*, Nevin S. Scrimshaw and Gary R. Gleason, eds. (Boston, Massachusetts, International Nutrition Foundation for Developing Countries, 1992), pp. 295-305.
26. M. E. Bentley and others, "Rapid ethnographic assessment: applications in a diarrhea management program", *Social Science and Medicine*, vol. 27, 1988, pp. 107-116.
27. S. C. M. Scrimshaw and others, "The AIDS rapid anthropological assessment procedures: a tool for health education planning and evaluation", *Health Education Quarterly*, vol. 18, No. 1 (Spring 1991), pp. 111-123.
28. S. C. M. Scrimshaw and others, *HIV/AIDS Assessment Procedures: Rapid Anthropological Approaches for Studying AIDS-Related Beliefs, Attitudes and Behaviours* (Geneva, World Health Organization, 1990).
29. I. A. Agyepong and others, *The Malaria Manual Guidelines for the Rapid Assessment of Social, Economic and Cultural Aspects of Malaria* (Geneva, World Health Organization, 1995).
30. A. M. Almedom, U. Blumenthal and L. Manderson, *Hygiene Evaluation Procedures, Approaches and Methods for Assessing Water and Sanitation Related Hygiene Practices* (Boston, Massachusetts, International Foundation for Developing Countries, 1997).
31. L. Manderson and A. Larson, *Contextual Assessment Procedures for STD and HIV/AIDS Prevention Programmes* (Brisbane, Queensland, Australian Centre for International and Tropical Health and Nutrition, 1997).
32. E. Herman and M. Bentley, *Rapid Assessment Procedures (RAP): to improve the Household Management of Diarrhea* (Boston, Massachusetts, International Nutrition Foundation for Developing Countries, 1993).
33. A. Long, S. C. M. Scrimshaw and E. Hurtado, *Epilepsy Rapid Assessment Procedures. (ERAP): Rapid Assessment Procedures for the Evaluation of Epilepsy Specific Beliefs, Attitudes, and Behaviours* (Landover, Maryland, Epilepsy Foundation of America, 1988).
34. L. Manderson, "Applying medical anthropology in the control of infectious disease", *Tropical Medicine and International Health*, vol. 3, 1998, pp. 1020-1027.

35. M. Nichter, "Project community diagnosis: participatory research as a first step toward community involvement in primary health care", *Social Science and Medicine*, vol. 19, 2002, pp. 237-252.
36. J. Dorabjee and others, "Rapid situation assessment of injecting drug use in Delhi", unpublished report, 1998.
37. R. McKetin, "Use of RAM to monitor illicit drug use in developed countries: can rapid assessment result in a rapid response?", *Drug and Alcohol Review*, vol. 18, 1999, pp. 333-335.
38. M. S. Kumar and others, "Rapid assessment and response to injecting drug use in Madras, south India", *International Journal of Drug Policy*, March 2000.
39. G. V. Stimson, D. C. Des Jarlais and A. L. Ball, eds., *Drug Injecting and HIV infection: Global Dimensions and Local Responses* (London, Taylor and Francis, 1998).
40. R. N. Needle and others, "Methodologically sound rapid assessment and response: providing timely data for policy development on drug use interventions and HIV prevention", *International Journal of Drug Policy*, vol. 11, 2000, pp. 19-23
41. E. Quimby, "District of Columbia rapid assessment, response and evaluation", unpublished report, 2001.
42. C. Jenkins, "A six city rapid assessment in Bangladesh (short version)", unpublished report, 2001.
43. L. Maher, P. Sargent and M. Cunningham, "Rapid assessment of hepatitis C prevention strategies among injecting drug users from non-English speaking backgrounds (NESB)", unpublished report, 2000.
44. H. Lambert, "Methods and meanings in anthropological, epidemiological and clinical encounters: the case of sexually transmitted disease and human immunodeficiency virus control and prevention in India", *Tropical Medicine and International Health*, vol. 3, 1988, pp. 1002-1010.