EVIDENCE FOR ACTION: EFFECTIVENESS OF COMMUNITY-BASED OUTREACH IN PREVENTING HIV/AIDS AMONG INJECTING DRUG USERS

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ISBN 92 4 159152 8

World Health Organization

WHO Library Cataloguing-in-Publication Data
Evidence for action: effectiveness of community-based outreach in preventing HIV/AIDS among injecting drug use.

1.HIV infections - prevention and control 2.Acquired immunodeficiency syndrome - prevention and control 3.Disease transmission - prevention and control. 4.Injections - adverse effects 5.Substance abuse, Intravenous - complications 6.Community-institutional relations 7.Review literature 8.Evidence-based medicine I.World Health Organization

ISBN 92 4 159152 8 (NLM classification: WC 503.6)

Printed in France

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World Health Organization
Geneva
2004

ACKNOWLEDGEMENTS

This publication was authored by R.H. Needle, D. Burrows, S. Friedman, J. Dorabjee, G. Touzé, L. Badrieva, J.-P.C. Grund, M. Suresh Kumar, L. Nigro, G. Manning and C. Latkin.

A number of people have made important contributions to the development of this publication. The accompanying references illustrate the seminal contributions of many investigators and their colleagues who have contributed to the science and practice of HIV prevention. We also acknowledge the cooperation of outreach workers and drug users who, over the years, have participated in the studies and interventions and have taught the public health community about their lives and how to effectively intervene to prevent HIV. We thank Marian Patricia Needle for editing and guidance on the development of the publication. In addition, we extend a special acknowledgment to Eugene McCray, Director, Global AIDS Program (GAP) and R.J. Simonds, Branch Chief, HIV Prevention of the United States Centers for Disease Control and Prevention for leadership in expanding the Global AIDS Program to respond to epidemics of HIV in drug-using populations and for promoting HIV prevention in drug-using populations.

Gundo Weiler, Monica Beg and Andrew Ball from WHO and Mukta Sharma edited the publication, which was developed under the supervision of Isabelle de Zoysa, Director of Prevention, Department of HIV/AIDS, WHO.

WHO acknowledges the generous contribution of the Australian Agency for International Development (AusAID) to the development of this publication.

CONTENTS

PREFACE

The global environment for a response to HIV has shifted substantially recently towards a massive scaling up of prevention and care interventions. In particular, the world made an unprecedented commitment during the United Nations Special Session on HIV/AIDS in 2001 to halting and reversing the epidemic by 2015. In support of this, new mechanisms to fund an expanded response have been introduced, such as the Global Fund to Fight AIDS, Tuberculosis and Malaria.

Countries now face the challenge of translating these commitments into practical programmes, including a range of comprehensive interventions to address HIV transmission related to injecting drug use. Although a huge body of scientific literature details the effectiveness of interventions, public health professionals often experience difficulties in accessing and interpreting this knowledge base.

This publication, together with other Evidence for Action technical papers, aims to make the evidence for the effectiveness of selected key interventions in preventing HIV transmission among injecting drug users accessible to a policy-making and programming audience. The interventions reviewed range from providing information and sterile injection equipment to the impact of drug dependence treatment on HIV prevention. Each publication summarizes the published literature and discusses implications for programming with a particular focus on resource-limited settings.

EXECUTIVE SUMMARY

WHO commissioned international literature and programme reviews on the effectiveness of HIV prevention for injecting drug users (IDUs). Evidence for Action publications synthesize existing evidence for advocacy with public health policy- and decision-makers. This publication focuses on the evidence on the origins, evolution and effectiveness of community-based outreach intervention for preventing HIV in IDU populations.

Community-based outreach is one component of a comprehensive HIV prevention model to prevent the further spread of HIV among IDUs. Other components include access to clean needles and syringes, a range of drug dependence treatment options, condom promotion and access to HIV testing and counselling, all within the context of a rights-based approach, in accordance with the United Nations General Assembly Special Session on HIV/AIDS held on 25–27 June 2001. Community-based outreach intervention strategies have been introduced over the past two decades when and where multi-person reuse of injection equipment is highly prevalent and syringe access programmes are not politically viable public health options. Community-based outreach has also been applied as an adjunct to needle exchange programmes and other prevention and treatment services in which outreach workers distribute information on programme locations and times and/or injecting equipment.

Since the early to mid-1980s, models of community-based outreach have been developed, implemented, evaluated and adapted for use in many regions of the world. The community-based outreach HIV risk-reduction intervention strategy is an adaptation of the outreach models developed in the 1970s before HIV/AIDS emerged as a public health threat. Community-based outreach is designed to access hidden or partly hidden populations of drug users in their natural surroundings and engage them in a process to enable them to reduce their injecting and sexual risk behaviour, especially multi-person reuse of contaminated syringes, needles and other drug injection equipment as well as unsafe drug-sharing practices, and to reduce their exposure to HIV. Community-based outreach has changed considerably over time, reflecting the changing dynamics of epidemics of drug use, HIV and other bloodborne diseases, the availability of a greater range of prevention services and the evolving knowledge base and best practices to guide their implementation.
To assess the effectiveness of community-based outreach, three empirical questions guided the review of the available evidence:

- Is outreach an effective strategy for reaching hard-to-reach, hidden populations of IDUs and providing the means for changing behaviour?
- Do a significant proportion of IDUs receiving outreach-based interventions reduce their HIV risk behaviours – drug using, needle and sexual practices – and increase their protective behaviours?
- Are the changes in behaviours associated with lower rates of HIV infection?

This publication includes findings reported from published and unpublished literature on community-based outreach. When possible, evidence from multi-country, multi-site studies or meta-analytical studies is presented. More than 40 published studies reveal that IDUs reached by community-based outreach and provided access to risk-reduction services – risk-reduction information and messages about safer drug use and needle practices, supplies of condoms, bleach, syringes (in some programmes) and referral to or provision of additional prevention and treatment services (voluntary testing and counselling, needle exchange programmes and treatment for HIV disease) – report reducing their risk behaviour and lowering their exposure to HIV. Evidence is available indicating that IDUs – referred by outreach workers to available, accessible and acceptable services such as voluntary testing and counselling and drug dependence treatment – increasingly use these services and reduce their HIV risk behaviour. The evidence for the effectiveness of a community-based outreach strategy for public health policy- and decision-makers is compelling.

The review of the evidence-based findings reveals the importance and effectiveness of community-based outreach in preventing HIV among IDUs. Despite evidence of the effectiveness of community-based outreach from 15 years of evaluation studies, a huge gap exists in most countries between the number of IDUs who want or could benefit from outreach services and the number of IDUs who actually receive them. Findings from evaluation studies on the effectiveness of community-based outreach must be shared, made accessible, rapidly communicated and disseminated globally. Providing evidence-based findings to policy- and decision-makers and advocating the use of findings for policy-making increases the likelihood that supportive policies will be established, including support for training outreach workers and supervisors. Nevertheless, although evidence of effectiveness needs to be provided to policy-makers and decision-makers to guide

their decisions, this is not always sufficient to persuade them to take action and implement scaled-up prevention programmes. This requires ongoing advocacy, strengthening the evidence base and plans to link evidence-based findings with technical assistance and training to enhance the capacity of regions and countries to introduce, scale up and sustain HIV prevention outreach to IDUs as part of a comprehensive HIV prevention strategy. *A training guide for HIV prevention outreach to injecting drug users* will be available soon; it has been field tested and revised. Implementation of outreach has to be linked with ongoing evaluation. Tools and guidelines for the evaluation of outreach work are also now available from the European Monitoring Centre for Drugs and Drug Addiction.

This review provides evidence that: Outreach is an effective strategy for reaching hard-to-reach, hidden populations of IDUs and provides the means for enabling IDUs to reduce their risk behaviours; a significant proportion of IDUs receiving outreach-based interventions reduce their risk behaviours-drug using, needle and sexual practices and increase their protective behaviours; changes in behaviours have been found to be associated with lower rates of HIV infection. HIV transmission in IDUs is preventable.

1. INTRODUCTION

The Declaration of Commitment on HIV/AIDS of the United Nations General Assembly Special Session on HIV/AIDS in 2001 recommended that countries implement a comprehensive programme to prevent the further spread of HIV/AIDS among drug users. The components of a comprehensive HIV prevention programme include, but are not limited to, community-based outreach, access to clean needles and syringes, a range of drug dependence treatments, condom promotion and HIV testing and counselling, all within the context of a rights-based approach. The proposed recommendations for preventing HIV transmission in injecting drug users (IDUs) reflect more than a decade of research on the effectiveness of community-based interventions (Jones & Vlahov, 1998; Needle, et al., 1998; Stimson et al., 1998). Results from early studies, and especially the WHO multi-country study of drug injecting and HIV infection from 1987 to 1992 (Stimson et al., 1998) and the United States National Institute on Drug Abuse (NIDA) multi-site study of community-based outreach from 1987 to 1991 (Brown et al., 1993), indicate that epidemics of HIV among IDUs can be prevented, slowed and even reversed. Despite the cumulative evidence on the effectiveness of community-based outreach, many countries have not introduced or scaled up the implementation of outreach programmes to prevent the further spread of HIV infection among IDUs.

This publication focuses on one component of a comprehensive HIV prevention programme: community-based outreach. Since the HIV epidemic began, community-based outreach has been a feasible and effective public health strategy to reach hard-to-reach, hidden and out-of-treatment IDU populations, to provide them with the means to change their behaviour and to reduce their risks for acquiring or transmitting HIV. Additional publications on evidence for action in preventing HIV in IDUs focus on the effectiveness of other components of a comprehensive HIV prevention programme, such as sterile needles and syringe access and drug dependence treatment in preventing HIV infection among IDUs.

Most of the published research on the effectiveness of community-based outreach was conducted in the late 1980s and mid-1990s in industrialized and/or low-prevalence countries, before HIV began to rapidly spread in drug-using populations in countries in South Asia and South East Asia, eastern Europe and central Asia and Latin America – all resource-constrained countries. Coyle et al. (1998) and Needle & Coyle (1998) reviewed the literature on the effectiveness of community-based outreach. This publication presents a synopsis of previous findings from earlier reviews and updates the published and unpublished literature since 1998, with attention to reports from developing countries.

1.1. Aims and scope

This publication focuses on the origins, evolution and effectiveness of community-based outreach intervention for preventing HIV in IDU populations. Evidence from the published and unpublished literature is reviewed, and the findings are reported in response to three interrelated empirical questions.

- Is outreach an effective strategy for reaching hard-to-reach, hidden populations of IDUs and providing the means for changing behaviour?
- Do a significant proportion of IDUs receiving outreach-based interventions reduce their HIV risk behaviour – drug using, needle practices and sexual – and increase their protective behaviour?
- Are the changes in behaviour associated with lower rates of HIV infection among IDUs?

1.2. Organization

This section describes the literature search methods and the criteria used to evaluate the strength of the evidence and defines key terms and concepts. Section 2 presents the rationale and objectives of community-based outreach. Section 3 describes community-based outreach. Section 4 discusses the evolution, diffusion and adaptation of community-based outreach models since they were first introduced in response to epidemics of HIV among IDUs. Annex 1 describes these models in more detail. Section 5 presents the available evidence on the effectiveness of community-based outreach. This section is organized to address the empirical questions and to evaluate the strength of the evidence using Hill's criteria for evaluation. Section 6 considers the feasibility and sustainability of outreach in resource-constrained settings, generalizability across regions and case studies in subsequent sections are presented. The publication concludes with a brief discussion and recommendations for strengthening the evidence base and scaling up implementation to close the gap between demand, availability and utilization of outreach.

1.3. Methods for reviewing literature on community-based outreach

Search methods

This publication includes, where possible, reported findings and evidence from multi-country, multi-site studies or meta-analytical studies. Authors reviewed studies reported in English as well as Spanish, Italian and Russian. The review had limitations: not all papers in the field could be obtained, and publications in languages other than those mentioned are not included.

Evaluating the strength of the evidence

Although the gold standard in evaluation study designs is the randomized control trial, there are non-design criteria to assess the evidence and infer causation from observational studies (Hill, 1971). Table 1 presents the criteria used in earlier reviews for evaluating the evidence of effectiveness of community-based outreach in preventing the spread of HIV infection among IDUs (Coyle et al., 1998).

Table 1. Evaluating the effectiveness of community-based outreach in preventing HIV transmission in IDUs according to the criteria of Hill (1971)

Criteria	Empirical questions
Temporality – correct association (appropriate time sequence between intervention and observed outcomes)	◗ Is evidence available indicating post-intervention changes in risk behaviour? ◗ Is evidence available that groups not exposed to community-based outreach did not report the same levels of change in risk behaviour?
Consistency of findings (similar associations by different plans under different circumstances)	◗ Is evidence of effectiveness of community-based outreach available: ❰ over time, since this epidemic began? ❰ as reported by different investigators? ❰ from different countries with variation in HIV incidence and prevalence and differences in public health infrastructure?
Specificity of association is limited to specific participants or specific outcomes	◗ Is evidence available indicating post-intervention changes in targeted behaviour (drug use and needle practices)? ◗ Is evidence available indicating that post-intervention changes did not occur or occurred less frequently in non-targeted risk behaviour (sexual behaviour of IDUs)?
Dose–response relationship	◗ Is greater exposure to the multi-component community-based intervention associated with greater post-intervention changes?
Plausibility (causation is feasible in the context of current knowledge)	◗ Is evidence available that community-based outreach: ◗ reached the populations at risk? ◗ provided them with the means to change their behaviour, especially multi-person reuse of syringes? ◗ reduced multi-person reuse of syringes? ◗ reduced multi-person reuse of syringes and this was associated with reduced exposure to HIV?

Specifically, Hill's criteria include reviewing evidence related to a temporally correct association (an appropriate time sequence between the intervention and the observed outcome). An effort is made to determine whether outreach results in post-intervention reduction in risk behaviour associated with HIV transmission. Hill also identified consistency of findings of similar association by different investigators, in different places, under different circumstances and at different times as an important criterion in interpreting causation from observational studies. This publication reports data for community-based outreach in different countries with variation in the incidence and prevalence of HIV and differences in the infrastructure available to respond to epidemics of HIV among IDUs. Additional criteria include the strength of association between the intervention and observed outcome and the specificity of the association and dose–response relationship. A most important criterion is related to the behavioural and biological plausibility of the cumulative findings. Is causation feasible in the context of current knowledge? Is evidence available that community-based outreach reached the populations at risk, provided the means for changing behaviour, especially means that would enable IDUs to reduce multi-person reuse of syringes? Were reductions in risk behaviour associated with reduced exposure to HIV?

1.4. Definition of key terms and concepts

Community-based outreach is organized to access and engage populations of IDUs in a process of risk reduction in communities where they congregate rather than intervening with drug users who attend clinics to access services. Outreach workers can be current IDUs or non-injecting drug users, former IDUs or non-injecting drug users or non-drug users who have close links to and are trusted by IDUs. They can be trained to provide services and preserve the confidentiality of the drug users they reach and engage in risk reduction. Outreach workers as peers typically carry out «a set of specific education strategies devised and implemented by members of a subculture, community or group of people for their peers, where the desired outcome is that peer support and the culture of the target group is utilized to effect and sustain change in behaviour» (Kinder, 1995).

2. OBJECTIVES AND RATIONALE FOR COMMUNITY-BASED OUTREACH

2.1. Objectives

There are four interrelated objectives for prevention interventions, including community-based interventions for IDUs:

- preventing HIV transmission in IDUs;
- preventing progression to AIDS;
- preventing morbidity and mortality related to HIV/AIDS; and
- preventing morbidity and mortality related to drug use.

Most community-based outreach activity has been primarily organized to reach IDUs and to prevent HIV transmission. Outreach has also been implemented to provide services to prevent drug use–related health consequences such as abscesses, infections and drug overdoses. Given the increase in the numbers of IDUs living with HIV disease and the likelihood that therapy will become more accessible and affordable, the potential role of the outreach worker will expand to focus on reaching the affected population to provide risk reduction and to refer IDUs to available services. Thus, in this situation the role of outreach workers will increasingly include aspects of care and treatment.

2.2. Rationale for outreach

The majority of drug users in most countries attempt to remain hidden from authorities, especially law enforcement; to protect their privacy, they also often avoid using treatment and agency-based services (Hughes et al., 1977; Lambert & Wiebel, 1990; Rhodes, 2000). Drug users who could benefit most from HIV prevention services and drug treatment are the least likely to use these services (Lambert & Wiebel, 1990). Outreach is designed to reach hidden populations of drug users in their communities, engage them in a process and provide the means to enable them to reduce their risk of acquiring HIV infection. HIV in IDUs is spread primarily through behaviour related to multi-person reuse (sharing) of contaminated syringes, needles, other drug injection equipment and sharing drug solutions as well as by unprotected sexual intercourse with HIV-seropositive persons (Marmor et al., 1984; Friedland et al., 1985; Koester et al., 1990; Grund et al., 1991a, b, 1996, 2001; Grund, 1993; Jose et al., 1993).

Outreach workers provide access to available services (risk reduction, risk-reduction supplies and referrals) to enable drug users to reduce their risk behaviour related to multi-person use of syringes and drug injection equipment and to high-risk sexual practices. The extent to which outreach to IDUs starts and sustains a process that results in reduced risk behaviour that, in turn, leads to a reduction in exposure to and acquiring and/or transmitting HIV is the evidence base required to establish the effectiveness of outreach in preventing HIV in IDUs. Disentangling the relative contributions of multicomponent outreach from the effects of other prevention interventions such as syringe access programmes is often difficult.

3. DESCRIPTION OF COMMUNITY-BASED OUTREACH

Outreach to drug users has been among the most frequently implemented interventions because it can reach hidden populations of drug users (illicit drug use is not usually performed openly in front of strangers) who are stigmatized (society views illicit drug users as being different and generally views them negatively).

Trained community-based outreach workers know the local community. They know where, when and how to access and engage hidden populations of drug users in the process of reducing risk within their neighbourhoods. Outreach workers can be trained to establish trust and are recognized as sources of accurate information. They can assist drug users in understanding their personal risk for HIV and other bloodborne diseases and in identifying the preventive steps necessary to reduce risk. They can provide referrals or bridge IDUs to services, if available, including drug treatment, testing and counselling for HIV/AIDS, sterile syringe access programmes and other HIV prevention and treatment services.

Outreach workers work in both «open» and «closed» drug scenes. Some cities have an open scene where drugs are bought and sold fairly openly on the streets or elsewhere. This is often a strategically important place to make contact because there may be many IDUs in a small geographical area (Burrows, 2000). Other vulnerable groups at risk for HIV often congregate in areas where drugs are being used and sold (Needle et al., 2003). In addition, interviews can be conducted and information distributed among a large number of people in a short time. In other places, drugs are bought, sold and used very secretively. Drug sellers may use pagers or mobile phones, and people they trust must introduce drug buyers to sellers. Drugs are also used in less public places such as drug-users' residences or «house addresses,» where purchased drugs may be consumed on the spot (Grund et al., 1992; Grund, 1993; Des Jarlais et al. 2002; Rhodes et al. 2002). These are known as closed scenes and are much harder to penetrate. Outreach is often the only way to contact IDUs and deliver services in closed scenes (Burrows, 2000).

Trained outreach workers can be responsive to and address rapidly changing behaviour patterns, such as changes in the availability of injectable and non-injectable drugs and the availability of needles and syringes. These patterns are often influenced by police activities and social pressure. For example, drug users may be pushed from one neighbourhood to another by constant police raids (Grund et al., 1992), may avert needle exchange programmes because of police surveillance (Des Jarlais et al., 2002) or may just avoid carrying their own injection equipment because of fear of arrest (Grund et al. 1995; Grund 2001). In addition, increasing rents may force drug users to move to new locations. The membership of drug-selling and using networks may also change: different ethnic groups may become involved; drug users of different ages may enter or leave the scene; and specific groups may take over certain drug sales.

4. EVOLUTION, DIFFUSION AND ADAPTATION OF OUTREACH MODELS

The community-based outreach HIV risk-reduction intervention strategy was an adaptation of outreach models developed in the United States and western Europe before HIV/AIDS emerged as a public health threat. In the United States, this model was introduced in the late 1960s in response to epidemic levels of heroin use. Hughes et al. (1977) hired former heroin users to provide targeted outreach to active, out-of-treatment, hidden populations of IDUs in Chicago drug market areas to encourage them to enter methadone maintenance treatment. In western Europe, community-based peer outreach evolved from the tradition of reaching out to youth with problems related to drugs and drug users at risk for hepatitis B and other related health effects.

4.1. Models of intervention delivery

Community-based outreach has changed considerably over time, reflecting the changing dynamics of epidemics of drug use, HIV and other bloodborne diseases, the availability of a greater range of prevention services and the evolving knowledge base and best practices to guide their implementation. Table 2 presents an overview of the conceptual basis and changes in community-based outreach models that have been implemented, evaluated and adapted for use in other countries. To a great extent, these models were developed and evaluated in the United States, western Europe and Australia and adapted for use in other countries. Annex 1 describes in detail each of the models referred to in Table 2.

Overview of models

The outreach strategy was originally designed to rely on current and/or former drug users and train them as mobile teams to reach out-of-treatment IDUs for whom services were not available or were available but not accessible or who chose not to use the services. The outreach strategy was also designed to reach drug users in their communities who were unable and or unwilling to stop injecting drugs and to provide risk-reduction information and services (Wiebel, 1996). The San Francisco MidCity Consortium to Combat AIDS (Watters, 1986) developed and field-tested risk-reduction prevention messages and introduced the distribution of bleach and information on cleaning syringes. Early outreach efforts were characterized by repeated and time-intensive contacts with IDUs. These efforts were introduced before voluntary HIV testing and pre- and post-test counselling were established as components of a prevention programme and before other services for IDUs with HIV disease were available. These services are still not available in many countries today.

With the expansion of services for IDUs in some countries, outreach models were expanded to increase opportunities for drug users to access a range of prevention and treatment services (Needle & Coyle, 1997; Tinsman et al., 2001). Peer-driven outreach models, often relying on current drug users, were introduced to reach drug-user risk networks rather than individual drug users. Conceptually, this strategy recognizes that the networks of IDUs not only are important determinants of their risk for HIV but can also be successfully used for influencing drug users to reduce their risk behaviour to prevent HIV infection (Latkin et al., 1996; Broadhead et al., 1998; Latkin, 1998). Neaigus (1998) reviewed the network approach and interventions to prevent HIV among IDUs. Outreach models often rely on a mix of approaches that combine individual-level risk reduction with network-based components.

The link of outreach with syringe access programmes is characteristic of the renewal outreach programme model (Badrieva, 2001) and increasingly evident in countries with recent epidemics of HIV in IDUs and in regions and countries that have adopted the harm-reduction approach to preventing HIV and the other health-related effects of drug use. Many of the more recent adaptations of outreach programmes rely on recruiting people from neighbourhoods where drug users congregate and encouraging these individuals to use their residence as a venue to provide a range of services to enable IDUs to have access to means for changing behaviour.

Community-based outreach programmes vary in terms of the components adopted, adapted and implemented. More specifically, outreach varies in:

- the types and numbers of people doing outreach: current and/or former drug users, non-drug users and health professionals;
- the roles of outreach workers;
- the types of training for outreach workers and supervisors;
- the amount of time engaged and numbers of actual contacts with IDUs in high-risk locations;
- the types of people to be reached: IDUs, non-injection drug users in or out of drug treatment using various substances, IDU risk networks, prisoners and those recently released, commercial sex-working IDUs and people living with AIDS;
- the venues used for outreach: tolerance zones or open drug scenes, closed drug scenes, streets, bars, crack houses, storefronts, favelas (Brazil) or shantytowns, residences, house addresses, tusovkas or pritons (Russian Federation);
- the differences in the means provided to drug users to change their behaviour: risk-reduction information, condoms, bleach, syringes, safe pipes for crack users, referrals to health and other services;
- the types of services linked with outreach: voluntary testing and counselling, needle exchange programmes and treatment for HIV disease;
- organizations and subcomponent service providers: nongovernmental organizations, drug users' organizations, health departments, municipalities and drug treatment agencies;
- the administrative oversight of outreach workers in the field;
- the methods used for recording and reporting field-based activities; and
- the emphasis placed on evaluation.

The effectiveness of the community-based outreach intervention strategy depends greatly on the skills of the outreach worker: the art of outreach work. Outreach requires that the outreach worker earn the trust of drug users and be recognized by drug users in their community as a source of risk-reduction information and services to enable them to adopt risk-reduction practices. Several publications (NIDA, 2000; WHO, in press) have reported the characteristics and desirable skills (personal, communication and knowledge-based) necessary for effective outreach workers. Personal skills that have been identified as factors accounting for effective outreach work include empathy, respect for others, being genuine and communicating in concrete terms, addressing issues of self-disclosure, dealing with the immediacy of the feeling of IDUs, competence, trustworthiness, adhering to the guidelines of the programme and commitment and conviction to work with IDUs to enable them to reduce their risks. WHO has recently published a guide to train outreach workers in the art and science of outreach work (WHO, in press).

Table 2. Evolution and diffusion of community-based peer outreach models

MODELS DEVELOPED IN THE UNITED STATES				
Name	**Year**	**Features**	**Target populations**	**Comments**
Indigenous leader outreach model (Wiebel, 1988)	1988	Combines ethnographic and epidemiological methods for targeting neighbourhoods and drug users at risk and developing AIDS interventions ◗ Relies on indigenous outreach workers ◗ Identifies and accesses out-of-treatment IDUs ◗ Increases AIDS awareness ◗ Conducts street-based risk assessment ◗ Provides risk reduction ◗ Reinforces risk-reduction measure	IDUs not in treatment IDU risk networks	◗ Adapted from earlier work of Hughes et al. (1977) and developed to respond to heroin outbreak in 1970s ◗ Intense street outreach focused on risk networks and individual-level behaviour changes ◗ Adapted and used model in 1995 trials to facilitate entry into drug treatment ◗ Adapted and used in some central European and central Asian countries
Community health outreach workers model	1987	◗ Targeted recruitment of community health outreach workers ◗ Created hierarchical message on risk reduction ◗ For disinfection of injection equipment, community health outreach workers provided: – Risk-reduction information – Bleach – Demonstrations of skills to clean equipment	IDUs	◗ Hierarchical risk-reduction message first developed and introduced (later to be expanded) ◗ Teach and bleach ◗ Focused on sexual transmission of IDUs ◗ Bleach incorporated into community-based interventions in Argentina, Belarus, Brazil, India, Malaysia, Nepal, Russian Federation, Thailand, Ukraine and Viet Nam ◗ Some debate about effectiveness, but no debate that it provides an opportunity to engage drug users in risk reduction
United States National Institute on Drug Abuse community-based outreach model	1987–1998			
◗ United States National AIDS Demonstration Research Program	1987–1991	◗ Targeted outreach ◗ Indigenous outreach ◗ Tested three different intervention models – Behavioural counselling – Indigenous leader outreach model – United States National Institute on Drug Abuse HIV counselling and educational model	IDUs and sexual partners of IDUs and others at high risk	◗ First major national multi-site HIV efficacy study based in the United States ◗ Multi-site (29), multi-year programme ◗ Manuals and training materials for each model developed ◗ Some referrals to voluntary testing and counselling
◗ Cooperative agreement programme	1991–1998	Targeted outreach ◗ Outreach and two sessions of voluntary HIV testing and counselling ◗ Messages on risk reduction and safer sex ◗ Provided risk-reduction materials (such as bleach and condoms) ◗ Referrals to other services	Crack and cocaine smokers among IDUs	◗ Relied on outreach workers to bridge out-of-treatment IDUs to voluntary testing and counselling sites ◗ Standardized HIV pre- and post-test counselling as risk reduction ◗ Adapted and used in India

MODELS DEVELOPED IN THE UNITED STATES				
Name	**Year**	**Features**	**Target populations**	**Comments**
Peer-driven intervention (Broadhead et al., 1998)	1994	Recruitment of network members, through use of chain referrals Active IDU peers, IDUs actively involved in recruiting and providing risk reduction, with monetary incentives provided	IDUs and their risk networks	Compared traditional outreach (provider–client approach) that uses professional outreach workers with peer-driven current drug users as outreach workers (social network approach) ◗ More active role in recruiting other IDUs ◗ Effectiveness of peers in providing information evaluated ◗ Model implemented in Odessa and several other regions in central and eastern Europe and Viet Nam
Use of peer leaders for HIV prevention (Latkin, 1998)	1994	Identified peer leaders participated in a 10-session training programme Leaders asked to recruit risk network member(s) Outreach to networks, providing risk-reduction information and discussing HIV prevention After each outreach visit, the leaders discussed experience	Risk network members including drug users and sexual partners who inject drugs	◗ Shift from more individual-level community-based interventions to interventions designed to affect group-level influences and behaviour. Relies on outreach worker and formalizes training for their roles as peer leaders ◗ Effectiveness on the diffusion of information to others in networks assessed by interviewing the network members recruited
Center for Substance Abuse Treatment, United States Department of Health and Human Services	1995-2000	◗ Street outreach to link high-risk populations to HIV-related services and drug treatment ◗ Provided referral or services including substance abuse treatment, HIV/AIDS risk reduction, medical diagnostic testing and screening and links to other services	IDUs and their sex and needle-sharing partners	◗ Multi-site (n = 12) multi-year, with different populations at risk ◗ Trial organized around two outcomes: – Persuading high-risk people to obtain HIV tests – Entering substance abuse treatment ◗ Tested effectiveness of integrating street outreach with referral to substance abuse treatment

MODELS DEVELOPED IN WESTERN EUROPE				
Name	**Year**	**Features**	**Target populations**	**Comments**
Youth model	1960s	Focus on drug use and HIV prevention among IDUs	«Problem youth» and drug problem	◗ Original form of outreach and preceded the emergence of HIV ◗ Used in Austria, Nordic countries, France, Germany and Portugal
Catching the clients model	Mid-1970s	Encourages drug users to enter drug treatment Primary focus is to help drug users to stop using drugs	Drug users in need of treatment	◗ Carried out mainly by therapeutic communities and other drug treatment providers ◗ Greece, Norway and Sweden
Self-help model	Mid-1970s	Relies on drug users to reach out to other drug users	Active drug users	◗ Resulted in the formation of organizations of drug users ◗ Belgium, Denmark, France, Germany, Italy, Netherlands, Spain, United Kingdom
Public health model	Mid- to late 1980s	◗ Low threshold for harm-reduction services (providing services) ◗ Bridging to helping institutions (drug treatment, testing and counselling and HIV/AIDS treatment)	IDUs	◗ IDUs work with physicians and nurses to reach IDUs ◗ Most widely used model in Europe

MODELS DEVELOPED IN THE RUSSIAN FEDERATION (KAZAN, REPUBLIC OF TATARSTAN)				
Name	**Year**	**Features**	**Target populations**	**Comments**
Renewal outreach programme	1999	Outreach linked to needle and syringe programmes ◗ Provide outreach in places where IDUs congregate (tusovka) ◗ Use volunteers from tusovkas for secondary exchange	IDUs	◗ Combination of outreach and needle exchange programmes ◗ Relies on volunteers, which allows for more efficient use of volunteers ◗ Coverage of IDUs has been substantial

5. EVIDENCE OF THE EFFECTIVENESS OF COMMUNITY-BASED OUTREACH

Three empirical questions guided the review and analysis of published and unpublished papers on the effectiveness of community-based peer outreach.

- Is outreach an effective strategy for reaching hard-to-reach hidden populations of IDUs and providing the means for changing behaviour?
- Do a significant proportion of IDUs receiving outreach-based interventions reduce their HIV risk behaviour – drug using, needle practices and sexual – and increase their protective behaviour?
- Are the changes in behaviour associated with lower rates of HIV infection among IDUs?

This section reviews evidence on the effectiveness of strategies for reaching hard-to-reach hidden populations of IDUs. Table 3 describes the characteristics of the major multi-country, multi-site, meta-analysis and single-site studies referred to in the next several sections.

Table 3. Major evaluation studies of community-based peer outreach interventions

MULTI-SITE EVALUATION				
	Period of study and site(s)	**Multi-site or single-site**	**Design**	**Measures**
WHO Multi-City Study on Drug Injecting and Risk of HIV Infection	1987–1992 Cities in Europe, South America and Asia	Multi-site (12)	Cross-sectional Case-histories of five low-seroprevalence cities	Risk behaviour Context of risk behaviour Prevalence of HIV-1 infection Description of prevention activities
United States National AIDS Demonstration Research Program	1987–1991	Multi-site (29) *n* = 44 000	Quasi-experimental	Process Intervention components Post-intervention risk behaviour Cost–effectiveness
Community-based outreach cooperative agreement	1990–1998	Multi-site (23) *n* = 26 000	Quasi-experimental	Process post-intervention Risk behaviour HIV prevalence Cost–effectiveness
Center for Substance Abuse Treatment, United States Department of Health and Human Services	1995–2000	Multi-site (12) *n* = 9 296	Quasi-experimental	Process Service delivery services and procedures Risk behaviour Entry into treatment
United States Centers for Disease Control and Prevention Research Synthesis Project	1988–1997	Meta-analysis of 33 United States–based behavioural and social HIV interventions	Experimental or select quasi-experimental designs	Changes in heterosexual risks (reducing unprotected sex acts or increasing use of male condoms) among drug users

5.1. Is outreach an effective strategy for reaching the at-risk populations?

In most countries, size estimates of the IDU population are either not available or are problematic because they underreport the number. The number of IDUs is often underestimated because the sampling is frequently based on participants from drug treatment agencies and other institutional sources, such as jails. Consequently, except for a few countries, reporting with great confidence about coverage or the portion of the IDU population reached by community-based outreach is difficult. The following sections report on regional and country-specific outreach programmes.

Central and eastern Europe and the newly independent states

In central and eastern Europe and the newly independent states of the former USSR, very few countries have reached most IDUs through outreach (or any other method). The Czech Republic, Kyrgyzstan and Lithuania are possible exceptions (Burrows & Alexander, 2001), and only in Kyrgyzstan has the government made a commitment to reach this target (Burrows & Holmes, 2001).

In central and eastern Europe, most outreach programmes follow the North American or western European models and are coupled with syringe access programmes. In central Europe, especially the Czech Republic and Slovenia, European models, including the self-help or public health models, are most often implemented. In eastern Europe and central Asia (such countries as Kyrgyzstan, the Russian Federation and Ukraine), North American models such as the indigenous leader or peer-driven intervention are frequently used.

In the Russian Federation, a new model (see case study in Annex 2) was developed in 1999 in Kazan in the Republic of Tatarstan that focuses specifically on reaching IDUs in a closed scene of apartment-based drug buying and selling (Badrieva, 2001). A total of 101 sites had been opened in the city and the programme had reached 7700 IDUs (about 35% of the city's IDUs). Unfortunately, only 35 sites are still operating, mainly because of continued police activities around *tusovkas,* places (not necessarily apartments) where IDUs get together to congregate rather than buy drugs

Funding is not sufficient to expand outreach staff to the level needed to reach all IDUs in Kazan. But even with a stable number of outreach workers, this process has enabled the programme to reach over 100 hidden networks of IDUs. With additional outreach workers and sufficient harm-reduction equipment, the programme should eventually be able to reach almost every hidden network in the city with information and education and with injection equipment.

A six-city project in Belarus (Minsk,etc) reports that community outreach workers play a critical role in providing drug users with information on avoiding sexuality transmitted infection and HIV. They also provide clean syringes and needles, disinfecting materials and condoms to between 5-30% of drug users in 4 cities (Gailevich, 2001).

In the Russian Federation, Moscow outreach workers have reached about 10 000 IDUs and disseminated leaflets and condoms since 1997. Compared with the high number of contacts, referrals to other services such as drug treatment and HIV testing are low. The issue centres on the availability of anonymous services, since most IDUs are afraid to contact official agencies (Khachatrian, 2001). This feasibility issue is also addressed in other countries and clearly highlights the importance of community-based outreach, even if it is limited to making contact with IDUs, offering risk-reduction information and whatever other means can be provided.

Western Europe

Data from western Europe also demonstrate that outreach has reached large numbers of the at-risk populations with services. Country-level reports reveal that large numbers of IDUs are being provided with condoms, syringes and referrals to drug treatment services. In the 1980s, an outreach and needle exchange programme in Rotterdam, the Netherlands greatly extended its reach and the quantity of supplies provided by including programme participants as peer outreach workers who brought large amounts of injecting equipment (and condoms) to house addresses where drugs were sold and consumed (Grund et al., 1992). At some point, this programme distributed about 50% of all the injecting equipment provided in the city of Rotterdam in the neighbourhood where it operated. The European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) reviewed the national reports on outreach work of the EU Member States (Burkhart, 1999). This report provides an analysis of outreach work classified by target group, objectives, theoretical models and indicators. In many of the countries, outreach is one intervention, along with drop-in centres, syringe exchange programmes and

methadone services, and reaches drug-using and other populations (such as commercial sex workers) with a range of low-threshold services. Scientific evaluation of the programmes has been limited. The European Monitoring Centre for Drugs and Drug Addiction (http://www.emcdda.org) can provide more information about outreach work (EMCDDA, 1999).

Asia and the Pacific

Compared with the size of the IDU population, Asia and the Pacific has few outreach programmes providing services to IDUs. In Australia and New Zealand, outreach workers have reached a large majority of IDUs (Feacham, 1995), although Bangladesh reports having reached up to 80% of injectors in some cities (Jenkins et al., 2001). Section 8 presents a case study on the outreach programme in Bangladesh. In all these cases, outreach is combined with needle and syringe exchange programmes. India also has large-scale outreach programmes connected to both needle and syringe exchange programmes and buprenorphine substitution treatment in Delhi, Chennai, Mumbai and Calcutta.

Outreach programmes have been implemented in some states of India. The State of Manipur in India is scaling up its needle and syringe exchange programmes and outreach interventions in an attempt to reach most IDUs. A village in Manipur reported reaching almost all IDUs (750 of 850). Over 18 months, they reported 5939 contacts with IDUs, 3930 bleach kits distributed and more than 4700 condoms distributed (Hangzo et al., 1997). In a Delhi slum, a drop-in centre provides a range of services to IDUs and acts as a base for outreach workers (Dorabjee et al., 2001). Although the outreach component was not separated from the drop-in services for the evaluation, the researchers found that the programme had been very successful in reaching IDUs, contacting 3415 between May 1999 and July 2001 compared with a target of 500 clients. The programme serves as an effective bridge to drug treatment.

A recent study found that 12 countries in Asia have started outreach activities, often as a substitute for needle and syringe exchange programmes, which are politically or legally prohibited (Gary Reid, Centre for Harm Reduction, Melbourne, Australia, personal communication). Small programmes, usually without needle and syringe exchange programmes (or in some places unofficially exchanging needles), have begun in China, Indonesia, Malaysia, Mongolia, Myanmar and Thailand. Thailand is now considering introducing community-based outreach in Bangkok and then extending the outreach strategy to other parts of the country. It most likely will introduce the indigenous leader outreach model described earlier and discussed in more detail in Annex 1.

Outreach connected to needle and syringe exchange programmes has been carried out for more than a decade in Nepal and has begun more recently in Bangladesh, India, Pakistan and the Philippines.

Twenty-one of the 61 provincial AIDS committees in Viet Nam reported disseminating «propaganda» in 2000 to increase awareness of HIV/AIDS and to reduce high-risk and promote safer behaviour. In Vietnam, peer educators provide information to a variety of groups – drug users, sex workers and people infected with HIV. Peer educators are trained and paid to do outreach in a range of settings including streets, drug injection settings, railway stations, hotels, brothels and clients' homes. They provide brochures, condoms, syringes and limited referrals. In a collaboration between Viet Nam's Ministry of Health and the United States Centers for Disease Control and Prevention, training of outreach workers began recently using a combination of the Community-Based Outreach Model of the United States National Institute on Drug Abuse (NIDA, 2000) and the WHO *Training guide for HIV prevention outreach to injecting drug users* (in press).

Africa and the Eastern Mediterranean

No outreach programmes specifically for IDUs have been reported in Africa or the Eastern Mediterranean despite findings that 15 African and 12 Eastern Mediterranean countries have identified drug injecting in their communities. Of these 27 countries, 17 have found HIV among IDUs (Ball et al., 1998). Three sub-Saharan countries with potential for epidemics of HIV in drug-using populations within the context of overwhelming heterosexual epidemics are Kenya, Nigeria and South Africa.

Latin America

In recent years, substantial effort has been made to introduce community-based outreach programmes in Latin America. This section is selective and comments on outreach in different countries, since a detailed overview of activities in the region is not available.

Brazil developed the first syringe exchange programme in Latin America, which began in 1995 in Salvador, Bahia. The Center for the Study and Therapy of Drug Abuse (CETAD) began working in a very crowded neighbourhood of the city and later

spread to other neighbourhoods using outreach to get in touch with IDUs and crack users. The harm-reduction programme of Porto Alegre was created in 1996. Harm-reduction interventions mainly rely on outreach workers. Some outreach workers are former drug users who make weekly visits to shooting galleries and IDU networks. Interventions include information on sexually transmitted diseases and AIDS, sexual and IDU-related transmission, needle-exchange kits, male condom distribution and referral to health and social services. This intervention has provided knowledge related to injection cocaine use patterns and drug users' social and health needs.

In Argentina, Intercambios, a nongovernmental organization, began in 1998 as a research and intervention project with drug users in Buenos Aires (Touzé et al., 1999). Interventions include the distribution of information, clean syringes and condoms and the first needle exchange programme in the country. Drug users and researchers organized prevention activities for the rest of the community. Some of these drug users now work with Intercambios as outreach workers (Rossi et al., 2000).

During 2001, Intercambios coordinated a communication campaign focused on drug users. To disseminate information on safer sex and injection practices in drug-using populations and to contact IDUs and connect them with social and health care organizations, focus groups involving drug users designed prevention materials. These materials were distributed together with condoms and syringes at 20 sites. One thousand IDUs and 8000 non-injecting drug users were contacted.

El Retoño is a nongovernmental organization in Argentina involving drug users, former drug users, government agents, members of religious communities and social science professionals. Its main activities include street work to establish contacts with noninstitutionalized drug users, especially the most excluded, and to provide health care information, condoms and syringes. Between 1998 and 2000, El Retoño contacted over 300 drug users, partners and children to provide information and encourage voluntary testing (Radulich, 2001).

There are outreach programmes in other Latin American countries – Colombia and Mexico. Limited descriptive information is available, and even fewer data are reported.

North America

Review of available data from the United States National Institute on Drug Abuse (Needle et al., 1998b) and the United States Substance Abuse and Mental Health Services Administration (Rowden et al., 1999; Tinsman et al., 2001) multi-site studies reveal that they reach large numbers of hard-to-reach, stigmatized, hidden, at-risk, out-of-treatment IDU populations. Outreach programmes in the United States provide direct services related to risk reduction, such as bleach and condoms, and refer drug users for other services such as syringe access and disposal and drug treatment, HIV testing and counselling. The multi-site studies of the United States National Institute on Drug Abuse reached more than 60 000 male and female HIV-seropositive and -seronegative IDUs of various races and ethnic origins and provided risk-reduction information, bleach, condoms and referrals or direct services related to HIV testing and counselling. In addition, 10 000 sexual partners and nearly 14 000 crack users were reached and provided risk-reduction information, bleach, condoms and referral to services.

The most recent United States Substance Abuse and Mental Health Services Administration multi-site (12 cities) outreach study of high-risk drug-using populations found that outreach was effective in referring drug users for drug treatment services. Of the 68% of drug users referred, 41% entered drug treatment. This study highlights the fact that, if services are available, outreach is an effective strategy to reach, to refer and to start a process that can lead to reduced risk and prevention of HIV infection. The results were similar for reaching drug users and referring them for HIV testing and counselling. In the United States, outreach now appears to reach a large majority of IDUs. Each year an estimated 750 000 to 1 000 000 outreach contacts (about 250 000 different IDUs) occur in the United States – including hard-to-reach IDUs such as sex-working, homeless, homosexual and transgendered IDUs (personal communication, D.C. Thompson, United States Center for Substance Abuse Treatment, Rockville, MD, 2002). The data are less clear for Canada.

Limited descriptive information and even fewer data are available about outreach programmes in Mexico.

5.2. Is outreach work associated with decreasing risk behaviour and increasing protective behaviour among IDUs?

Accumulated evidence from more than 40 different studies, most in the United States and using observational and quasi-experimental designs, strongly indicates that outreach-based interventions have been effective in reaching out-of-treatment IDUs and providing the means for effective behaviour change (Coyle et al., 1998). Some of these included needle and syringe exchange programmes, but most did not, especially the ones in the United States, as the federal government does not fund needle exchange. Since the 1998 summary, a number of new studies have been reported. These five additional studies (Broadhead et al., 1998; Cottler et al., 1998; Latkin, 1998; Goldstein et al., 2002) and a study by Kumar et al. (1998) in Madras, India confirm earlier findings that community-based outreach results in reported reduction in risk behaviour related to acquiring and transmitting HIV. For more details about the methods and findings from these studies, see Coyle et al. (1998).

Specifically, these studies consistently report significant and strong post- intervention reductions in 10 of the 11 studies of outreach related to cessation of injection drug use, reduced injection frequency (17 of 18), reduced multi-person reuse of syringes (18 of 22), reduced use of other injection equipment (9 of 13) and reduced crack use (8 of 8). These studies also report increased needle disinfection (11 of 17), increased entry into drug treatment (7 of 8) and increased condom use (18 of 21). Goldstein et al. (2002) reported that street outreach in combination with other interventions was effective in assisting drug users to return to methadone maintenance treatment programmes. Kwiatkowski et al. (2000) reported that opiate drug users recruited by street outreach workers and offered free methadone treatment were more likely to enter and remain in treatment than those who entered when they had to pay for treatment. In addition, outreach is effective if it is combined with referral programmes that make services accessible by providing transport, which facilitates the use of services (Tinsman et al., 2001). Tinsman et al. report employing mobile units to provide testing services on the street; providing on-site testing increases the likelihood that these services will be utilized. Projects with mobile units were 86 times more likely to have their clients tested for HIV than projects without mobile units. Projects with on-site HIV testing were 21 times more likely to have their participants tested for HIV than those that referred for services. Thompson et al. (2002) report that prevention-related services, including peer outreach and drug treatment services, resulted in reduced risk behaviour for HIV related to drug injection and sex among alcohol and drug users.

Broadhead et al. (1998) reported that, over a 2-year period in the United States, both a peer-driven intervention and traditional outreach models produced significant reductions in HIV risk behaviour. IDUs recruited by peer-driven intervention reported that they shared syringes and other injection paraphernalia less often and injected drugs substantially less often than did IDUs recruited through traditional outreach. The results from Latkin's (1998) network studies support findings by Broadhead et al. (1998) that active drug users, or opinion leaders recruiting networks, recruit a more diverse and at-risk group of IDUs and may cause greater changes in risk behaviour than more traditional outreach. These data considered together strongly support the conclusion that outreach has been an effective intervention for reducing IDU risk behaviour in the United States.

Post-intervention changes in IDU risk behaviour have also been reported in other countries – Belarus, India, Indonesia and the Russian Federation. In India, Kumar et al. (1998) reported on community-based outreach to drug injectors in Madras. The outreach programme included reaching IDUs on the street, face-to-face education about HIV/AIDS risk-reduction information and provision of bleach and condoms. Drug users participated in three education sessions to raise awareness, reinforce risk perception and receive information about services, including referrals to HIV testing and counselling. The researchers reported significant declines in injecting risk behaviour among IDUs in the programme but found that sexual risk behaviour was difficult to change. Drug users in communities with outreach programmes reported greater changes than those without such programmes.

The effectiveness of an outreach programme in the absence of needle and syringe exchange programmes was also evaluated in Bali, Indonesia (Desembriartista, 2001). A programme in Denpasar, Bali carries out research and outreach: to provide information on HIV/AIDS, sexually transmitted diseases, hepatitis B and C; to promote safer injecting and safer sex; and to provide referrals and counselling. In addition, the office is used as a drop-in centre.

Responses from IDUs were compared from before the programme started and 1 year after it began. Although the sample size was small, the study found increases in awareness of HIV/AIDS, knowledge of how to clean needles and syringes, actual cleaning of equipment, use of new needles and syringes, increases in condom use and an overall decrease in injecting.

In Yaroslavl, Russian Federation, it has been reported that a peer-driven intervention outreach programme significantly reduced the sharing of drug preparation and injecting equipment and water among the city's IDUs over a 2-year period (Sergeyev et al., 1999).

Studies from the United States and India reveal that drug users are less likely to reduce risky sexual behaviour than to change drug use and needle practices. Outreach-based peer programmes have been repeatedly reported to be more effective in enabling IDUs to change their drug-using and needle risk behaviour than their sexual behaviour (Stephens et al., 1993; Kumar et al., 1998). This is not surprising, since most of the interventions specifically targeted trying to change drug use and needle practices. Semaan et al. (2002) analysed 33 studies (most including outreach) and reported reduced unprotected sex acts and increased use of condoms among IDUs in intervention programmes. The reductions were greater than those in IDU comparison groups, which also reported reductions. Though the findings are in the direction of reduced risk, the magnitude of the change was not great.

5.3. Is outreach work associated with lower rates of HIV infection among IDUs?

A critical question in evaluating the effects of community-based outreach on the HIV epidemic is determining whether post-intervention reductions in risk behaviour result in fewer infections. The number of empirical studies is limited, but the results are promising.

Wiebel et al. (1996) provide the strongest evidence that participants in outreach can reduce their HIV risk behaviour (especially multi-person reuse of syringes) and thereby reduce their exposure to HIV. Wiebel et al. conducted a prospective study of intensive street-based outreach intervention in Chicago. The intervention was guided by the indigenous leader outreach model (Annex 1). Former drug users delivered the HIV prevention services in community settings. The authors employed a quasi-experimental design, collecting baseline and 6-month follow-up data between 1988 and 1992 from IDUs who were at risk (seronegative at baseline) for HIV transmission through their reuse of needles, syringes or other paraphernalia (n = 641). The authors added a non-equivalent control group that was not exposed to outreach intervention. A non-equivalent control group does not share identical characteristics with the experimental group in the intervention and somewhat limits the interpretation of the causal impact of outreach on seroconversion.

Wiebel et al. report that the proportion of out-of-treatment drug users reporting injection risk behaviour declined from 54% at wave one to 14% in the final sixth year of follow-up. Sex risk behaviour also decreased, but the changes were less dramatic than reported changes in injection-related practices. The seroincidence among outreach participants declined from 8.4 to 2.4 per 100 person–years. Injection risk was the only behavioural risk factor associated with a reduction in HIV seroincidence risk. Seroconversion was associated with injection risk behaviour (risk ratio = 9.8). In the nonequivalent control group not exposed to outreach intervention, 50% reported risky injection practices. In the outreach intervention group, only 14% of the IDUs reported risky injection practices. Wiebel et al. attribute reduced HIV infection in the outreach group to reduced injection risk. The study design is strong, and the results support the interpretation that outreach reduces exposure to HIV and prevents HIV transmission. This study, unfortunately, has not been replicated. For more details about the methods, including sampling and data analysis, see Wiebel et al. (1996).

Des Jarlais et al. (1998) demonstrated in a WHO study that intervening before the prevalence of HIV infection reaches 5% in IDUs and introducing a range of prevention activities helped cities to maintain a low prevalence. They linked seroprevalence and risk behaviour data with reports from local experts to test the hypothesis that introducing a comprehensive HIV prevention programme that includes early intervention, large-scale provision of sterile injection equipment and community outreach to disseminate AIDS information and risk-reduction supplies to build trust between health care workers and IDUs would result in lower seroprevalence. All outreach programmes provided referrals to other services, including drug treatment and HIV testing and counselling. Des Jarlais et al. concluded that the evidence available at the time indicated that epidemics of HIV-1 transmission can be prevented in high-

risk IDUs. The authors addressed the limitations of the design and examined the data in terms of making causal inferences about preventing HIV epidemics. Since there were multiple HIV prevention components, the relative contribution of outreach cannot be disentangled compared with other intervention components.

5.4. Interpreting and summarizing the evidence

Hill's criteria and the accumulated evidence on the effectiveness of community-based outreach in preventing HIV transmission in IDUs is summarized in Table 4.

Table 4. Interpretation and summary of evidence-based findings on the effectiveness of community-based outreach in preventing HIV transmission in IDUs

Criteria	Findings summarized	Comments
Temporality – correct association with appropriate time sequence between intervention and observed outcomes	Post-intervention reductions in risk behaviour reported in more than 40 studies ◗ Groups not in interventions do not show reduced risk behaviour ◗ Post-intervention change in testing and counselling and in entering and re-entering drug treatment repeated in 10 studies targeting this behaviour	Design of studies with behaviour at baseline and follow-up support the interpretation that outreach led to reduction of HIV infection risk in IDUs exposed to intervention
Consistency of finding similar associations by different plans under different circumstances	◗ Outreach has been effective in reaching populations in all regions of the world where it has been implemented ◗ Outreach has been effective in enabling IDUs to reducerisk behaviour starting in the 1980s, continuing throughout the 1990s and into the third decade of the epidemic ◗ Outreach has been effective in reducing risk behaviour in countries with both limited and substantial public health capacity	Evidence strong and consistent that IDUs reached by community-based outreach over time and in different countries report reductions in risk behaviour
Specificity of association is limited to specific participants or specific outcomes	Outcomes – post-intervention changes in targeted behaviour (drug use and needle practices) ◗ Post-intervention use of services referred by outreach workers ◗ Smaller changes in sexual risk practices	Outreach provides risk-reduction messages and means for behaviour change, including referral to other services The IDUs reached by community outreach workers utilized services when they were available
Dose–response relationship	Very few data available	Data too limited to infer that the more outreach, the greater the change in behaviour
Plausibility (causation is feasible in the context of current knowledge)	◗ At-risk populations reached by outreach ◗ Provided means to enable IDUs to reduce risk behaviour and/or increase protective behaviour ◗ Reductions in risk behaviour reported, especially multi-person use of syringes ◗ Incidence of HIV transmission in IDU group exposed to outreach lower than that of IDU group not exposed to outreach	Epidemiological studies publication that multi-person reuse of syringes is related to HIV transmission, and evaluation studies of outreach indicate that: ◗ Outreach is an effective method of enabling IDUs to reduce their risk behaviour ◗ One study directly links reduction in risk behaviour to reductions in HIV

Epidemiological studies publication that risk behaviour, especially multi-person reuse of syringes, is the primary reason for HIV transmission in IDUs. Strong evidence indicates that outreach reaches at-risk HIV-vulnerable populations, provides the means to reduce the risk associated with multi-person reuse of syringes, results in reports of reduced sharing of syringes and other injection equipment and increases the use of other services, especially voluntary counselling and testing and drug treatment services. One major study (Wiebel et al., 1996) indicates that reductions in multi-person reuse of syringes among IDUs reached by outreach were followed by reductions in seroincidence.

Review of more than 40 studies indicates consistency in the direction and strength of the association between outreach and the specificity of behaviour change. The magnitude of post-intervention changes in risk behaviour is substantial. Reports are consistent that interventions targeting IDU-specific risk behaviour related to drug use and needle practices reduced these types of risk behaviour. For example, analysis of a subset of studies supported by the United States National Institute on Drug Abuse found that between 16% and 34% fewer IDU participants exposed to outreach reported reusing drug preparation paraphernalia 6 months after first being interviewed. The median reduction was 27% of the 2554 IDUs, translating into 460 fewer IDUs reporting sharing injection equipment in the past 30 days, 6 months after they were first interviewed (Coyle et al., 1998). These findings are consistently reported by different investigators, in different places, under different circumstances and at different times during the HIV epidemic.

Interventions focused on providing risk-reduction information and referrals to related services also resulted in specific behaviour changes. Outreach is designed to bridge out-of-treatment drug users to services. It starts a process that often results in increased utilization of services. Those referred for drug treatment and for whom drug treatment was available entered treatment. The results were similar for HIV testing. Most recently, reports of intervention targeting reaching drug users who dropped out of methadone maintenance treatment programmes reveal that outreach in combination with other interventions was effective in assisting these people in re-entering treatment (Goldstein et al., 2002). Initially, drug users who dropped out of treatment were not willing to re-enter treatment. Repeated contact with the outreach worker and the resulting established trust facilitated treatment re-entry. Differential effects of entry into treatment and use of HIV testing and counselling occurred when investigators provided mobile services and/or introduced these services in their own programmes rather than referring to other agencies (Rowden et al., 1999; Tinsman et al., 2001).

The cumulative evidence reviewed supports the conclusion that outreach is causally associated with reduced risk behaviour and reduced exposure to HIV. This inference is strengthened by findings that groups exposed to outreach interventions had greater reductions in risk behaviour than did those not participating (Wiebel et al., 1996). Kumar et al. (1998) also report that IDUs in control populations had higher rates of risky behaviour than IDUs exposed to the community-based intervention. These data suggest a temporally correct association (appropriate time sequence between intervention and outcome). This interpretation is challenged by difficulties in disentangling the relative contributions of the multiple and linked HIV prevention components such as voluntary counselling and testing, syringe access programmes and drug treatment. In that respect, outreach work should be seen as a tool that can be implemented in various contexts and not as a (stand-alone) programme per se.

In sum, the science-based evidence from more than 15 years of research indicates that community-based outreach is an effective strategy for reaching hidden populations, for providing the means to enable IDUs to change their behaviour and for reducing their exposure to HIV. Pinkerton et al. (2000) used a mathematical model of sexual and injection-related HIV transmission to evaluate the effectiveness of the United States National AIDS Demonstration Research Program. They analysed a subsample (8 of 29) of United States sites from the United States National AIDS Demonstration Research Program and reported, based on their cost–threshold analysis, that 129 cases of HIV infection among 6629 partners were averted. They reported that the costs of preventing HIV infection are much lower than treating it. They concluded that outreach-based intervention programmes were cost-effective.

6. FEASIBILITY AND SUSTAINABILITY IN RESOURCE-CONSTRAINED SETTINGS

6.1. Resources to support outreach programmes

Community-based outreach is a comparatively low-cost effective intervention for preventing HIV infection among IDUs. It is therefore particulary well suited to resource-constrained settings. Outreach is often the first step in establishing HIV prevention, care and support programmes among IDUs. Outreach programmes in India were found to be highly cost-effective methods of reaching IDUs with education and tools for prevention (Ball & Crofts, 2001). As Burrows (2000) notes, at the simplest level, outreach workers can be trained to make «a journey [back] into the community to make contact with a network of drug users to see and understand their practices, to gain their trust and to seek their help in preventing HIV transmission.» However, although outreach programmes are often the easiest to start, they may be difficult to maintain and to scale up to have the impact necessary to prevent the further spread of HIV, especially when disconnected from other services. To maintain more permanent relationships with IDUs and other vulnerable groups, outreach workers should have something to offer beyond information (on avoiding risk). Although there is no consensus on the number or percentage of the risk group that needs to be reached, reaching as many of the group at highest risk as possible is critically important. Critical issues emerging from the literature are training, supervision and compensation for outreach work. Availability and use of epidemiological and/or ethnographic data will help target communities and populations at risk.

A major function of outreach programmes is to bring IDUs into contact with existing services. However, this process is not effective unless the services accept IDUs as clients and provide services IDUs perceive as being valuable. Outreach programmes therefore also need strong links with all relevant services in their local area. Functional relationships between outreach workers and the police (and other authorities) are also crucial. Outreach programmes need these links to ensure non-interference with outreach activities but not such close links that IDUs suspect that the outreach programme is reporting to the police or other agencies (Burrows, 2000).

6.2. Risks related to outreach work

Several risks are also associated with outreach work. Risks can be grouped into occupational safety hazards affecting individual outreach workers and those affecting IDUs who are clients of the outreach programme. The first group includes risks related to drug use by outreach staff. This can include increased drug use by current drug users, relapse by former users and initiation of drug use by non–drug users. Of these, by far the most commonly cited problem is relapse by former users. Guidelines on the establishment of outreach programmes, such as the *Training guide for HIV prevention outreach to injecting drug users* (WHO, in press) commonly contain advice and information on preventing relapse and preventing supporting staff from relapsing to drug use associated with conducting outreach work. With careful selection, training, debriefing and guidelines for outreach worker behaviour and support for those who relapse, the issues can be addressed. However, this issue must be constantly discussed and agreed on by organizations that employ outreach workers. This is extremely problematic in countries where little drug treatment is available and where continuing use or relapse can be the basis for punishment. Policy-makers and supervisors must directly address this issue.

Other commonly cited problems for outreach workers are harassment and verbal abuse and/or violent treatment by the police and (less often) by community leaders. Careful and ongoing liaison with the police, and sometimes other community leaders such as shopkeepers and religious authorities, is usually needed to ensure that outreach workers can work without interference.

Risks affecting the clients of outreach workers are limited to police harassment or arrest. In several cases, the police have been reported to follow outreach workers and arrest their clients. In these cases, outreach programmes had to stop operating until appropriate arrangements were made with the local police.

Outreach workers may also potentially violate the confidentiality of outreach clients. This is why many programmes separate the roles of outreach workers and those responsible for voluntary HIV testing and counselling. This issue has to be systematically addressed in training and reinforced by organizations supporting outreach work in the community.

6.3. Generalizability

Outreach is suitable in virtually all settings (inner city, peripheral city and rural) in all countries. The only significant barriers to implementation of outreach programmes are funding and interference by authorities. Lack of funding is a problem because government and other decision-makers may be unaware of the potential benefits of outreach programmes, especially when they are linked with needle and syringe exchange programmes, and of the potentially disastrous effects of not responding.

6.4. Case studies

The case studies in this publication illustrate the activities associated with planning, introducing and scaling up a community-based outreach programme for IDUs. Annex 2 has two case studies : the renewal outreach programme in Kazan, Republic of Tatarstan (Russian Federation), linked with needle and syringe exchange programmes, started in May 1999 (Badrieva, 2001), and the SHAKTI Project's Injecting Drug User Intervention by CARE Bangladesh began with a rapid situation assessment in 1997.

DISCUSSION

In the 1980s, community-based outreach was the most feasible and potentially effective public health strategy to reach and enable hard-to-reach (hidden) IDU populations to change their behaviour and reduce their risks for acquiring and transmitting HIV. Since the 1980s, community-based outreach programmes have been introduced when multi-person reuse of injection equipment is prevalent and syringe access programmes are not a viable option. Over time, the community-based outreach model has evolved, reflecting the changing dynamics of epidemics of drug use, HIV and other bloodborne diseases, the availability of a greater range of services and the evolving knowledge base and best practices to guide the implementation of this strategy.

Community-based outreach is designed to reach drug-using and other vulnerable populations at high risk of acquiring HIV infection. Community-based outreach typically relies on indigenous members of the community (most of whom are former drug users and some current drug users) to access out-of-treatment drug users, establish trust and rapport and initiate risk-reduction activities including referral to other services on the streets and/or in other neighbourhood settings. The outreach strategy has been expanded to include out-of-treatment IDUs, sexual partners of IDUs, non-injecting drug users and drug-using networks and other especially vulnerable populations (women and high-risk youth). This review makes it clear that the adjunct services available to vulnerable populations (drug treatment, testing and counselling and syringe access programmes) vary considerably.

Outreach workers often provide risk-reduction messages (related to drug use and injection and options for sex behaviour to reduce vulnerability to HIV infection) and risk-reduction supplies to enable IDUs to adopt safer practices. When possible, outreach workers also refer IDUs to other services including voluntary counselling and testing, drug treatment, other health services and referral for treatment of HIV disease. Specifically, community-based outreach is designed to enable drug users to reduce their risk behaviour, including multi-person reuse of syringes and other injection equipment and unprotected sexual intercourse, and to increase protective behaviour: disinfecting needles and increasing condom use.

Evidence from more than 40 studies and additional unpublished reports indicates that community-based outreach reaches the hard-to-reach populations vulnerable to HIV, provides credible risk-reduction information and the means for behaviour change to enable drug-using populations to reduce drug use, to reduce reuse of syringes and other drug injection equipment, to increase condom use and, if they are referred and the services are available, to use drug treatment, testing and counselling and other services. Reducing risk behaviour greatly reduces exposure to HIV infection. Despite evidence of the effectiveness of community-based outreach from 15 years of evaluation studies, a huge gap exists in most countries between the number of IDUs who want or could benefit from outreach services and the number of IDUs who actually receive them.

The implementation of outreach programmes can be rapidly scaled up to reduce the spread of HIV among drug-using populations. Policy-makers and decision-makers now have access to evidence-based findings on the effectiveness of outreach and tools and guidelines to train outreach workers and to plan, implement and evaluate programmes to reach IDUs and other vulnerable populations (WHO, in press; NIDA, 2002).

There is no time to lose. HIV transmission among IDUs can be prevented.

ANNEX 1

Indigenous leader outreach model

The indigenous leader outreach model relies on former and/or current users employed as mobile teams of outreach workers (Wiebel, 1993). This model, implemented in 1986, relies on epidemiological and ethnographic data to target drug-using neighbourhoods and uses insiders with access to the drug-using community who know the rules governing the social systems of the streets (Wiebel, 1988). Outreach workers develop trusting relationships with the target population of drug users. They engage IDUs in discussions of risk and provide risk-reduction information and supplies. Wiebel focused simultaneously on creating changes both in the network norms related to risk and in the patterns of risk of individual network members. This strategy, and the more focused network-oriented interventions, recognize that drug injectors' networks not only are important determinants of their risk for becoming infected with HIV but can also be successfully used for influencing them to reduce risk behaviour to prevent HIV infection. With network-based interventions, the objective is to develop a sustained and self-maintaining culture in which IDUs and their friends will actively discourage one another from engaging in behaviour such as backloading, sharing of syringes or other injection paraphernalia and engaging in unsafe sex. The public health objective of changing the network subculture is to reduce IDU risk behaviour by developing a culture in which IDUs and their peers support each other in efforts to reduce risk.

Community health outreach workers model

In 1986, the San Francisco MidCity Consortium to Combat AIDS, a coalition of five social, health and research agencies, trained mobile teams of community health outreach workers to access, engage and intervene with out-of-treatment drug users in their own communities. The strategy was designed to reach IDUs who could not or would not access drug treatment or who were unable or unwilling to stop injecting drugs and to enable them to change their behaviour associated with risk of HIV infection through multi-person reuse of syringes (Watters et al., 1986; Watters, 1987; Feldman & Biernacki, 1988; Newmeyer, 1988). The community health outreach workers established a presence in public areas frequented by drug users; this was determined by reviews of epidemiological and ethnographic data (Feldman & Biernacki, 1988). The community health outreach workers made personal and continuous contact with drug users, providing risk-reduction information, literature, bleach and condoms. The HIV prevention message was «Stop using drugs. If you cannot stop using drugs, don't share. If you share, disinfect your works before you reuse some other person's syringe.» The group also focused on sexual transmission risks among IDUs and provided sexual risk-reduction messages and condoms. The San Francisco MidCity Consortium to Combat AIDS developed, tested and incorporated a bleach distribution component into the programme. Following the initiative, bleach distribution proliferated rapidly in cities across the United States and around the world, including Argentina, Belarus, Brazil, India, Malaysia, Nepal, the Russian Federation, Thailand, Ukraine and Viet Nam (Ball et al., 1998; Needle et al., 1998b).

United States National Institute on Drug Abuse (NIDA) community-based outreach model

The United States National AIDS Demonstration Research Program (1987–1991). In this multi-site programme, indigenous outreach workers were deployed to initiate risk-reduction activities on the streets and in other settings where injectors congregated (Brown et al., 1993; Coyle, 1993; NIDA, 2000, 2002). Basic risk-reduction activities usually involved face-to-face communication and information on HIV disease, prevention and other services; distribution of male condoms for safer sex; and bleach kits for decontaminating injection equipment. To diffuse information more rapidly, outreach workers made contact with individuals in small groups, though some sites formally targeted outreach at existing networks of drug users, often engaging network leaders in teaching or modelling HIV risk reduction. Outreach workers also referred drug users to other available services in the community, including drug treatment (Brown et al., 1993; Needle & Coyle, 1997; Coyle et al., 1998).

The NIDA community-based outreach cooperative agreement programme (1991–1998). This model incorporated the indigenous outreach model and combined it with the features of other models. The

model was adapted to include pre- and post-test HIV counselling (Needle & Coyle, 1997; Coyle et al., 1998; Needle et al., 1998a; NIDA, 2002). HIV pre- and post-test counselling became available in 1985 and was not readily available to communities involved in the first NIDA multi-site outreach programme; counselling represented another opportunity to engage IDUs in the process of changing behaviour. This model included two interrelated components designed to facilitate behaviour change among at-risk drug users, including injecting and non-injecting crack and cocaine users. These include (1) community-based outreach and (2) two sessions of education and risk-reduction counselling organized around testing for HIV, hepatitis B virus and hepatitis C virus. The pre- and post-test counselling enables drug users to learn their HIV status and the behaviour changes need to reduce transmission risks. The hierarchical sets of risk-reduction messages developed in the community health outreach worker programme were expanded, and the messages were linked to skills, where appropriate (how to clean injection equipment and how to effectively use condoms), and to referral to a range of services.

Peer-driven intervention

Broadhead et al. (1998) developed a social network model of outreach, referred to as a peer-driven intervention. This relies on active IDUs, provides them with guidance and direct, per-task monetary rewards to carry out outreach-related tasks. Broadhead et al. focused simultaneously on creating changes in network norms related to risk as well as the behavioural patterns of risk of individual network members. The IDU's first contact occurs when he or she is recruited and educated by the trained peer outreach workers. This mobilizes community networks of drug users to recruit drug users into a storefront where they receive one-on-one intervention and are trained to educate and recruit other peers. The recruitment process is designed to involve network members in discussing HIV risk reduction with one another, thus strengthening the norms for safer behaviour. This is currently being implemented in some cities in the Russian Federation and Viet Nam.

Outreach in natural settings: the use of peer leaders for HIV prevention among IDU networks

Latkin (1998) incorporates features from the above models and extends the intervention to include key players or potential opinion leaders from drug-user networks, training them as peer educators. This model relies on individuals with status within their drug-using networks to recruit and intervene with members of their drug-using and sexual risk networks. Latkin et al. (1995, 1996) and Latkin (1998) asked street-recruited drug injectors to bring in people with whom they had injected drugs for a series of six meetings in which they discussed together what the risks were, what could be done about these risks and the potential social and practical obstacles. They trained them to do outreach work with the members of their drug and sexual networks.

The following section describes other widely used outreach models. To date, relatively few evaluation data have been reported about effectiveness.

Youth model

The youth work model is the original form of outreach in many western European countries. Youth workers are employed to seek out problem youth and assist them with their problems. Drug use is not usually the primary focus of these outreach programmes, but HIV prevention among IDUs has become part of their work in recent years. This model is used in Austria, the Nordic countries, France, Germany and Portugal.

Catching the clients model

The catching the clients model is carried out mainly by therapeutic communities and other drug treatment services, where outreach workers encourage drug users into treatment. HIV prevention education is also an outreach activity, but the primary focus is on helping drug users to quit. This programme is common in the Nordic countries (especially Norway and Sweden) and Greece.

Self-help model

This model relies on drug-user outreach to reach out to other drug users about issues of mutual interest, including HIV/AIDS. This type of outreach is most common in France, Germany and the Netherlands but is also found in Belgium, Denmark, Italy, Spain and the United Kingdom. In recent years, this model has been adapted to assist IDUs living with HIV/AIDS. For example, an outreach organization in Amsterdam provides a newsletter on issues relevant to IDUs living with HIV/AIDS throughout the Netherlands. The newsletter uses a circular process through surveys with IDUs living with HIV/AIDS to discover what issues are of most interest to them, and then an expert centre of specialist health educators and outreach workers finds the technical information required and translates it into appropriate language for clients. The newsletter goes beyond scientific information; its goals are to stimulate access to and compliance with highly active antiretroviral therapy, to assist IDUs living with HIV/AIDS in supporting one other and to improve their overall quality of life (Brandsmaa, 1999).

Public health model

This model is built on the self-help model in which IDUs and former users work with physicians, nurses and other health workers to reach IDUs and provide HIV prevention information, often needles, syringes, condoms and other equipment and, in some cases, care and support (including medical treatment) for IDUs. This is the most widely used model across western Europe. This programme is designed to bridge drug users (especially those who cannot or are not willing to stop using drugs) with helping institutions for information and a range of services. Street outreach workers visiting places frequented by drug users make contact. In Amsterdam, for example, programmes include low-threshold harm-reduction measures: regular medical examinations, methadone distribution (including a mobile methadone bus), distribution of condoms, referral and a needle exchange system (Buning, van Brussel and van Santen, 1988). Begun before HIV/AIDS was reported in Amsterdam, HIV/AIDS prevention activities were added to the existing range of services for drug users.

ANNEX 2

Kazan, Republic of Tatarstan

The renewal outreach programme in Kazan, Republic of Tatarstan (Russian Federation) is linked with needle and syringe exchange programmes and started in May 1999 (Badrieva, 2001). Outreach began in the infectious diseases hospital because hidden populations of IDUs go there for treatment. Since this hospital serves a large geographical area, IDUs attending the hospital are representative of many different risk networks. Having won the trust of IDUs, «snowball» techniques – asking each drug user to introduce outreach workers to his or her friends – were used to penetrate social networks throughout the city. The programme produced its own educational materials, most notably a series of small cards each with a single, simple message and graphic, which were distributed with injecting equipment. To increase the reach of the service within Kazan, needle and syringe exchange and education services were expanded to reach hidden, apartment-based networks of IDUs.

To ensure that each brochure and each syringe they distributed had maximum effectiveness, the programme sought out tusovkas: places (not necessarily apartments) where IDUs get together to congregate rather than buy drugs. It was decided that these were the most appropriate and least dangerous places to reach IDUs and that, with relatively few outreach workers, this would be effective in reaching more of the at-risk population. They provided harm-reduction materials (including needles and syringes, condoms and alcohol swabs) and information about safer behaviour. To provide these services, a system of secondary exchange has been established, using volunteers at tusovkas. Workers in outreach and in fixed-site needle and syringe programmes are constantly seeking addresses of tusovkas (which are carefully hidden from the police and other authorities) and introductions to the tusovka host. This person may be the owner of an apartment or simply the most respected person in the place: the leader. Once access has been gained to the tusovka, outreach workers work to persuade the host to participate as a volunteer in programme activities. This process of persuasion has three main stages: opening, development and support.

Opening is the beginning stage and is designed to win the trust of a site host. The development stage is designed to involve the site in programme activities; outreach workers spend many hours establishing personal contact with all visitors to the site and observing the activities at the site. They anticipate the types of harm-reduction materials and information that would be most helpful to IDUs to enable them to prevent HIV transmission. Much time is devoted to persuading the host to allow harm-reduction activities to be carried out at the site (needle and syringe exchange programmes, distribution of leaflets, collection of used equipment and training sessions for visitors to the site) and to receiving information about new sites. Once the host is considered to work well as a volunteer and all or almost all visitors to the site have been met by outreach workers, the site moves into the third stage: support. Information and materials are provided for distribution at the site, and outreach workers provide occasional education and training sessions. This requires less involvement from outreach workers in short visits from time to time.

Dhaka, Bangladesh

The SHAKTI Project's injecting drug user intervention by CARE Bangladesh began with a rapid situation assessment in 1997. This was followed by a debriefing in May 1998 attended by representatives from government, nongovernmental and United Nations organizations, local community representatives and IDUs. The consultant presented the major findings from the rapid situation assessment, followed by an open discussion of the findings and a proposed intervention design (with emphasis on harm-reduction strategies).

The rapid situation assessment estimated that Dhaka had about 7 650 IDUs and at least 11 000 heroin smokers. More than 90% of the IDUs had previously smoked heroin (so that the 11 000 heroin smokers could be viewed as potential IDUs). The sex partners of IDUs were most often also IDUs. 90% had shared injecting paraphernalia; 30% were homeless; 46% had no education; 84% had ever been arrested; 66% had ever been imprisoned.

To finalize the project design, project staff, with the help of active IDU guides and other key informants, conducted extensive field visits and observations to map the city, identifying 42 drug-injecting places in Dhaka some of which were also places where drugs were being sold. The mapping exercise was especially helpful for selecting sites for drop-in centres and for placing outreach workers.

Getting started

The project started peer outreach training in May 1998 and ended with 12 active IDUs completing the 5-day training course. The training course covered education of other IDUs on : issues related to sexually transmitted diseases, HIV/AIDS and injecting drug use; health services for abscesses and sexually transmitted diseases; exchange of needles and syringes; and distribution of condoms.

Rules for staff behaviour were developed during the course. These rules included : no injecting while working; no carrying of drugs during work hours; and avoiding involvement in criminal activities. During the course, working hours were agreed with staff (8 a.m. to 2 p.m. 5 days a week, Sunday–Thursday). After training, the peer outreach workers received CARE peer outreach worker identification cards (to be carried only during work).

The first drop-in centre was set up in May 1998. Criteria for selecting the site of the drop-in centre included the number of nearby injecting spots, the accessibility and acceptability of the drop-in centre site to IDUs, the frequency of police raids in the area and the acceptance and cooperation of local authorities. Spots where drugs were directly sold and bought were avoided. Project staff held formal and informal meetings with local government, community leaders, police and youth clubs, and finally, the ward commissioner provided space in his own building free of charge. By June 1998, peer outreach workers had reached 150 IDUs and had distributed 1753 syringes.

Advocacy

Within 3 months, the ward commissioner came under pressure from various community groups, the local elite, religious leaders, youth groups and police to shut the project down : the project was accused of promoting drug use and not treating and rehabilitating drug users. The ward commissioner began to react to this pressure, worried that he had made a mistake in assisting the project. In August 1998, the biggest flood in history hit Bangladesh, and almost all of Dhaka was under water. As IDUs had no work, they turned to petty crime to get money for drugs.

Field workers found that local residents got furious toward the drug users and eventually towards the programme. One day during normal outreach activities, the local leaders and the ward commissioner demanded that something be done for the flood victims to really help the community people in their distress. Around 5000 people of that area and nearby areas took shelter at the community centre and in another government school.

There was one physician and one qualified nurse on the IDU intervention staff. These two, together with other field staff and peer outreach workers, formed an emergency medical team. As there were no funds for medicine, the team started just giving health education on food, drinking-water, sanitation, hygiene practices and communicable diseases.

Other agencies were convinced to fund the work (including medication for the flood victims) 2 weeks later. The IDU intervention staff continued to work there for about a month until the flood was over. The timely response to the community need helped in regaining trust and acceptability. Since then, the ward commissioner and other community people have become strong advocates of the programme.

Two other important tasks included dealing with police harassment and linking with drug treatment programmes. At first, arrest and harassment of peer outreach workers by police was common during working hours, with one staff member arrested by the Narcotics Department. Clients suffered police beatings, robbery of money and drugs (which were resold to drug users at higher prices) and at least one IDU was beaten to death.

Police harassment of peer outreach workers and field staff became less frequent after advocacy meetings between project staff and the police in charge at the local police station and with higher government officials such as the Minister for Law, Justice and Parliamentary Affairs, Inspector General of Police and Director General of Narcotics Control (all at the national level). These meetings resulted in a specific directive to police by the Inspector General of Police to cooperate with SHAKTI.

Partnership (both formal and informal) with other agencies providing drug treatment and other services was crucial to SHAKTI's success. A key partner was the Central Drug Treatment Hospital Dhaka which, after negotiation with project staff, gave priority to referrals from SHAKTI for detoxification at very low cost. Other important partnerships included those with Marie Stopes International Clinic; Ahsania Mission (demand reduction programmes); the local community (especially the provision of two drop-in centres free of rent); and a support network of influential people providing ongoing advocacy, formal and informal, with many community actors at the local, city and national levels.

Results

Preliminary findings have been reported (Beg, 1999), and behavioural surveillance results related to IDUs in Dhaka have been provided for 1998–1999 and 1999–2000 (Government of Bangladesh, 2000). By June 1999, the average number of IDUs reached each day was 1945, reaching over 2200 on some days. Between June 1998 and June 1999, a further six drop-in centres were opened; 26 more peer outreach workers were trained; and 210 peer educators (unpaid volunteers) started training, with 160 completing training. In addition, 20 medicine shop sellers were trained to act as referral points for sexually transmitted disease, abscess care and needle and syringe exchange programme services and to encourage them not to buy needles and syringes from IDUs (to prevent leakage from the SHAKTI project). By June 1999, the project distributed 16 213 condoms per month and 50 000 needles and syringes per month.

The project constantly expanded through the use of field trainers. These positions continuously monitored the activities of peer outreach workers and peer educators, providing on-the-job training where needed, ensuring smooth implementation of field activities, troubleshooting, addressing local advocacy needs, entering new areas, finding and talking to drug users, building rapport with IDUs and their local communities, looking for suitable places to establish drop-in centres and helping to set these up. As sufficient potential peer outreach workers and peer educators were found, new training courses were set up and the peer outreach workers and peer educators started work at the newly established drop-in centres. Through this process, ever-larger areas of the city were covered.

The impact of the programme has been demonstrated by monitoring HIV infection in Dhaka from 1998 onwards. Surveys of about 400 IDUs in Dhaka, using similar sampling and recruiting practices, were carried out in mid-1998 (when 2.5% of the IDUs surveyed were found to have HIV) and in early 2000, (when 0.2% of IDUs surveyed were found to have HIV). In the South Asian region, during this period, the prevalence of HIV infection rose rapidly among IDUs in Kathmandu (Nepal) and New Delhi and Chennai (India). These data suggest that the SHAKTI outreach programme has been successful in maintaining a low prevalence of HIV among IDUs in Dhaka.

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