



GUIDE TO STARTING AND MANAGING NEEDLE AND SYRINGE PROGRAMMES



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World Health Organization, Department of HIV/AIDS

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I. WHY, WHAT, WHERE, HOW?

A. Why this guide?

The transmission of HIV among injecting drug users and related populations of sex workers, youth and other vulnerable people is greatly adding to the burden of disease in countries worldwide. Evidence from 20 years of research shows that needle and syringe programmes (NSPs) *prevent, control and ultimately reduce prevalence of HIV and other blood-borne infections among injecting drug users*. These programmes are now operating in more than 60 countries in all regions of the world; yet it is estimated that less than 2% of injecting drug users are able to access sterile needles and syringes through NSPs [1]. The need for needle and syringe programmes, their role in a comprehensive response to HIV among injecting drug users and evidence for their effectiveness can be found in recent documents such as:

- ▶ *Effectiveness of Sterile Needle and Syringe Programming in Reducing HIV/AIDS among Injecting Drug Users*. Geneva, World Health Organization (WHO), 2005 (Evidence for action on HIV/AIDS and injecting drug use technical paper and policy briefings);
- ▶ Wodak A, Cooney A. Effectiveness of sterile needle and syringe programmes (and other articles in) *Evidence for Action: Special Issue of the International Journal of Drug Policy*, 2005, S31-S44;
- ▶ *Policy and programming guide for HIV/AIDS prevention and care among injecting drug users*. Geneva, WHO, 2005; and
- ▶ *Advocacy Guide: HIV/AIDS Prevention among Injecting Drug Users*. Geneva, WHO, 2004.
- ▶ *Preventing HIV Infection among Injecting Drug Users in High Risk Countries: an Assessment of the Evidence*. Institute of Medicine of the National Academies (2006) Washington DC: The National Academic Press.

This guide is designed to assist in expanding the response to HIV among injecting drug users globally. To do this, many more NSPs will need to be established. Sections I and II of this guide aim to foster this process. Many existing NSPs also need to expand the services that they offer and greatly increase their coverage. How to do this is the topic of sections III and IV. The scaling up of programmes must also include the establishment of many more NSPs in prisons and detention centres. The particular needs of NSPs in such “closed settings” are the subject of section V. The end of this guide provides a list of useful web sites, publications and networks, followed by annexes and notes.

B. What principles should guide NSPs?

Principles and approaches to be used in addressing HIV among injecting drug users are articulated in the UN Drug Control Conventions, the Declaration on the Guiding Principles of Drug Demand Reduction and UN human rights and health promotion policies. These emphasize the following points.

- ▶ Protection of human rights is critical for preventing HIV as people are more vulnerable to infection when their economic, health, social or cultural rights are not respected. Equally, a punitive approach, based overly on criminal justice measures, succeeds only in driving underground those people most in need of prevention and care services.
- ▶ Needle and syringe programmes are a key component of the comprehensive package of harm reduction interventions needed to address HIV among injecting drug users. The comprehensive package includes measures in support of three goals: 1) providing drug users with information and the means to protect themselves and their partners and families from exposure to HIV, including targeted information and education through outreach, provision of condoms and sterile injecting equipment and access to voluntary testing and counselling, 2) facilitating entry into drug dependence treatment, in particular opioid substitution therapy for people dependent on opioids; and 3) encouraging the uptake of other medical care, including general primary care and access to HIV care and ART [2].
- ▶ HIV prevention among injecting drug users should begin as soon as possible, as the virus can spread rapidly in this population and beyond.
- ▶ Interventions should be based on a regular assessment of the nature and magnitude of drug use, as well as trends and patterns of HIV infection.
- ▶ For prevention measures to be effective in a country, it is essential that these reach as many individuals as possible in at-risk populations.
- ▶ HIV prevention and drug-demand reduction programmes should be integrated into broader social welfare and health promotion policies and preventive education programmes.
- ▶ Effective responses to HIV among injecting drug users require the engagement of these people in all phases of programme development and implementation.

- ▶ HIV prevention and drug treatment programmes should provide for voluntary counselling and testing for HIV and other infectious diseases to help injecting drug users change behaviours that place themselves or others at risk.
- ▶ HIV prevention programmes should also focus on sexual risk behaviour among people who inject drugs or use other substances.
- ▶ Outreach work, peer education and specific measures outside normal service settings and working hours are often needed to reach injecting drug users, including prisoners, youth, women and sex workers.
- ▶ Flexible, easy-to-access opioid substitution therapy and other drug treatment services are critical to meeting the needs of injecting drug users.
- ▶ Care and support, with community participation, must be provided to injecting drug users living with HIV, and to their families.

C. What elements distinguish effective NSPs?

Needle and syringe programmes vary widely in terms of their location (within or near targeted communities of injecting drug users), hours, distribution policies, and their clientele and the drugs used by this group. Furthermore, while some provide outreach services and alternate sources for the distribution of needles and syringes (such as vending machines) others do not; and the social, political and economic context in which NSPs are situated differs from one place to the next, as does the availability of treatment and social services for people who are dependent on drugs and living with (or at risk of acquiring) HIV. Despite this diversity, effective NSPs tend to share a clear vision of what they wish to achieve, and common characteristics [3]:

Broad coverage: Where opposition to harm reduction measures is intense, it may still be necessary to run pilot studies of NSPs; however, the evidence for NSPs is irrefutable and health authorities should establish full-scale programmes wherever possible. NSPs need to be planned and implemented with the clear objective of reducing HIV transmission among injecting drug users throughout a geographic area. Otherwise, there is a danger of becoming a *boutique* programme that has little or no impact on an HIV epidemic.

Careful assessments: In some locations, circumstances may warrant the immediate provision of

needles and syringes. In all other cases, it is best to conduct a careful assessment of the situation prior to starting, as this will improve the programme's effectiveness and sustainability. An assessment should describe the nature of drug problems and the factors influencing them at a local level. It should also look at the adverse health consequences of drug use and identify resources that might be available to respond to drug problems and interventions that are socially, politically and economically appropriate. Above all, the assessment should provide a foundation for starting an NSP. The WHO/UNAIDS rapid assessment and response (RAR) methodology for injecting drug use provides tools that help in this work [4].

Community mobilization: Effective NSPs engage injecting drug users in decision-making from the earliest moment: assessments, planning, and critical decisions about sites, types of commodities and services to be provided and so on. It is also recommended that NSPs be guided by advisory committees that are broadly representative of stakeholders and the injecting drug users to be served (see text box "Developing NSPs with drug users: Australia's experience", section II A).

Quick start: They begin promptly, so that injecting drug users benefit before HIV spreads widely.

Comprehensive, flexible, easy to access: NSPs cannot prevent HIV and other diseases on their own so they need to provide a comprehensive range of well-coordinated and flexible services aimed at improving the health and well-being of injection drug users. Their services are often provided at multiple locations with varied hours of operation, making sterile injecting equipment and other services easy to access.

Range of commodities: As well as sterile needles and syringes, effective NSPs provide a range of commodities tailored for local needs. This may include male and female condoms, lubricant, filters, swabs, sterile water, cookers or spoons, puncture-proof boxes for used equipment, tourniquets, acidifiers, vitamins, common prescription or non-prescription medications, food, clothing and educational materials (see Section II for detailed discussion).

Dual targets: They target their services not only for injecting drug users but also their sexual partners.

Monitoring: They continually assess their results to understand the changing needs of their clients.

Outreach: Effective NSPs provide community-based outreach to drug users, where they live and use or buy drugs.

Respectful: They show respect for injecting drug users and their families and ensure that all are treated with dignity and with sensitivity to cultural, racial, ethnic and gender-based differences.

Education: They use all available opportunities to educate injecting drug users about the risks they face and the services to help them reduce these risks.

Advocacy: Effective NSPs use strategic advocacy to persuade politicians, police, health authorities, the media and others to create an enabling environment for their work.

Sustainability: They rally support, gain funding, nurture staff and provide targeted services so they are able to survive over the long term.

D. Where should services be started?

A beautiful NSP with well-trained staff and a profusion of sterile injecting equipment, but without large numbers of injecting drug users accessing its services, will have no impact on an HIV epidemic. In retailing, it is said that there are three important factors: location, location and location. While NSPs are not retailers, research shows that an inconvenient location inhibits the effectiveness of NSPs, while a convenient location allows for high coverage of services [5].

Care needs to be taken, therefore, in choosing locations: of fixed sites, home bases or central offices for outreach workers, drop-in centres (whether they

provide NSP or not), where outreach workers seek drug users, and where mobile NSPs stop. Good locations tend to be in or close to neighbourhoods where injecting drug users live, or are easily accessible from these neighbourhoods by public transportation. They also tend to be close to other suppliers of needles and syringes, such as pharmacies, but not too close to police stations and other places that may be considered hostile to injecting drug users [6].

E. How should services be delivered?

There are three basic modes of delivering the services of needle and syringe programmes [7]:

- ▶ Fixed site: a place to which injectors can come to collect and dispose of injecting equipment, and make use of other services;
- ▶ Mobile services: services are provided from a van or bus, usually with a regular route and regular hours of stopping in several locations; and
- ▶ Outreach/backpack: workers travel through streets or other areas (such as apartments), distributing clean needles and syringes and collecting used injecting equipment for safe disposal.

Many of the most effective NSPs provide a range of delivery modes, including syringe-vending machines and pharmacies. For a detailed discussion of delivery modes, see section II D.

II. GETTING STARTED

Start-up activities for NSPs generally include development of a programme plan that provides a timetable for activities, identification of the number of staff required and job descriptions, choice and calculation of the quantity of supplies needed, development of key policies and procedures, and initial guidelines for monitoring and reporting activities.

A. Planning with SMART objectives

At its simplest, a programme plan lists key tasks and notes when they should be completed: an initial plan is usually made for six or 12 months. For example, the first three months of a plan for a fixed-site NSP with an outreach team (after an RAR process has been carried out) may look like the example in Annex A.

Programme plans can be more complex, from Gantt (bar) charts to spreadsheets developed with project planning software; but the important point is that the list of tasks needs to be arranged chronologically. For example, it is impossible to train staff before staff have been recruited; outreach work should not begin before safety policies and procedures for outreach are developed; and needles and syringes should not be ordered before an estimation exercise to determine how many needles and syringes of each type will be needed.

Plans should also articulate clear goals and objectives so that programme implementers and evaluators can judge whether the NSP has achieved its targets. Too often, newly established NSPs identify goals that are vague or impossible to achieve. It is now recommended that NSPs use a combination of city- or district-specific goals and programme-specific SMART objectives. If 60% of injecting drug users in a specified geographic area are reached by the NSP at least once a month during the last year this is considered good coverage [8].

SMART objectives relate to the programme's contribution to the above goal and are:

- ▶ **Specific:** State clearly what the programme is trying to achieve;
- ▶ **Measurable:** Can be measured without massive resources devoted to research and evaluation;
- ▶ **Achievable:** Challenging, yet not overly ambitious given the available human, financial and other resources;

- ▶ **Relevant:** Useful to the overall process of working towards the goal; and
- ▶ **Time-constrained:** Identify a time limit within which it is to be achieved; otherwise the objective will be impossible to measure.

A SMART objective for an NSP in a district with 10,000 injecting drug users could be: "To reach 20% of injecting drug users in the district (about 2000) on a regular basis (at least monthly with appropriate injecting equipment and services (both should be defined) by the end of the NSP's first year of activities."

Similar SMART objectives can be developed for subsequent years and for quality as well as quantity. An example of a quality objective is: "To receive no more than three complaints per month about staff attitudes towards clients". This objective assumes that a clear and well-advertised complaints procedure has been developed and that clients with a grievance are encouraged to make a complaint. (The number of complaints is not set at zero as some people will always complain, no matter how good the programme. Also note that the objective is specifically about staff attitudes as complaints about lack of services or certain types of injecting equipment may be related to funding constraints over which staff have no control.)

A sub-section below, "Standardized Monitoring Processes", discusses monitoring in support of SMART objectives.

Developing NSPs with drug users: Australia's experience

Effective needle and syringe programmes engage their clients in many aspects of planning and development. The involvement of drug users, however, can be difficult. Their lifestyles often make it difficult to sit through three-hour meetings, for instance. What often occurs is that one "safe" injecting drug user (i.e., one who does not make too much trouble) gets invited to advisory group meetings, and this leads to token involvement of drug users rather than an inclusive approach. A genuinely inclusive approach might entail arranging regular meetings of local injecting drug users (over pizza or some other attractive food) to discuss issues that two or more members of this group can take forward to the advisory committee. A productive feedback loop is then established in which representatives of drug users report back to the larger group on each committee meeting and gather input for the next committee meeting. Such a process requires a significant investment of time but will practically ensure a high-quality programme [9]. HIV among injecting drug users in Australia has remained at low levels since the early 1980s, and evidence shows that drug users have contributed greatly to controlling the disease. All national committees, provincial committees and national non-government organizations addressing HIV and hepatitis have representatives from drug users' organizations as active members. Each state and territory has at least one drug users' organization funded mostly from government sources to ensure that the viewpoint of injecting drug users is expressed on any proposed change to policy or practice, especially where these concern needle and syringe programmes. To learn more about recent theories of engaging clients in the development of harm-reduction services, see an article by Jon Zibbell in the *International Journal on Drug Policy* [10, and see also 11].

B. What to provide

At its most basic, an NSP provides needles and syringes to injecting drug users; however, as noted above, effective NSPs tend to provide much more: everything from condoms to puncture-proof boxes, tourniquets, medications, food, clothing and educational materials [12]. Before choosing which commodities to provide, programme managers should consider the following issues.

Needles and syringes: The types of needles and syringes distributed should be those preferred by local drug users. If possible, injectors should be encouraged over time to use a single-unit needle and syringe such as the 1ml diabetic disposable syringe, as "attached" units provide less opportunity for HIV to survive in dried blood than do separate needles and syringes. Most NSPs provide a variety of needles and syringes to cater for different types of drug use and for different preferences among drug users.

Retractable (auto-destruct) syringes are not recommended for needle and syringe programmes. A review concluded that the usefulness of retractable syringes depends on the extent to which they replace or supplement existing injection equipment, and whether they are acceptable to injecting drug users. Trials have found that retractable syringes are unacceptable to injecting drug users in the United States of America, parts of Europe and Australia [13].

Condoms: Among the greatest risks of HIV infection are unprotected receptive anal or vaginal intercourse that involves torn mucosal lining or the presence of genital ulcerations (which are commonly caused by some sexually transmitted infections). Latex condoms are highly effective in reducing the likelihood of HIV transmission during such sex. It is recommended, therefore, that NSPs provide male condoms to clients. As well, where possible and acceptable to clients, they should provide female condoms (polyurethane sheaths that line the inside of the vagina).

Filters: Injectors often use cigarette filters (or cotton, cotton wool, tampons or rolling paper) as a filter between the tip of the needle and the solution to be injected to prevent undissolved particles of the drug and other debris from entering the syringe and the veins. A common practice, especially in resource-poor settings is to save used filters, then to squeeze or "wash" these filters to extract sufficient liquid for another injection. This practice is likely to enhance the spread of HIV and other viruses. As filters may prevent large particles getting into the syringe but will not prevent the entry of small organisms such as bacteria, it is recommended that filters be distributed with a pore width of 0.22 µm (micrometres). If this is not possible (as such filters may be too expensive), NSPs should provide cotton filters at least.

Sterile water: Many injectors share a common water container or use untreated water (such as rain or gutter water) for the preparation of drugs in an

injectable solution. When a water container is shared or used by more than one person, small amounts of blood from another injector may mix with the water and increase the risk for transmission of HIV or other viruses. As well, non-sterile or shared water can be contaminated with bacteria and lead to other health problems such as skin abscesses and endocarditis. Where possible, therefore, NSPs should provide single-use, sterile water ampoules. These contain enough water to mix drugs into an injectable form, but once opened, the ampoules cannot be recapped—eliminating the risk of contamination and re-use.

Swabs: Injectors use alcohol swabs to clean the skin before injection and to remove any blood resulting from the injection from their fingers and other surfaces. By distributing these swabs to clients, NSPs can help to protect injectors against abscesses and other bacterial infections.

Spoons: Drugs in powder or tablet form need to be mixed with water to make a solution that can be injected. A cooker is used as the container for this mixing process: heat may be needed to further dissolve the drug so that the solution is of the right consistency for injection. Spoons and, less frequently, bottle caps are used as cookers. It is recommended, therefore, that NSPs provide steel spoons, where possible.

Puncture-proof containers: NSPs must ensure they are in control of used needles and syringes from the point of collection to final destruction. This requires that they provide staff with puncture-proof containers to transport and store used syringes and needles. It is also recommended that NSPs offer these containers to drug users, so that they can safely store their used equipment at home or at injecting places and safely transport them to an NSP collection point.

Acidifiers: When injecting insoluble drugs such as brown heroin or crack cocaine, drug users must sometimes first add an acid to create a salt. Relatively safe acidifiers such as pure ascorbic, citric or acetic acid are not always available and injectors may use more available acids such as lemon juice or vinegar. These liquid acids can promote the growth of certain bacteria and fungi and lead to infections such as endocarditis of the heart, and candidal endophthalmitis of the eyes—a cause of blindness. Where injectors use acidifiers, it is recommended that NSPs provide single-use sachets of citric or ascorbic acid.

Tourniquets: Most injecting drug users use a tourniquet during injection, such as a piece of rope, a leather or cloth belt or a bandana. These items are not elastic enough, however, for quick release and may, therefore, cause trauma to the skin or vein, and infiltration of blood and fluids into surrounding tissues. In addition, these items are hard to clean if splattered with blood. It is recommended that, where possible, NSPs distribute thin, pliable, non-porous tourniquets.

Bleach and other disinfectants: The use of bleach and other agents for disinfection of needles and syringes is controversial. Use of bleach to clean needles and syringes has been found in the laboratory to be effective in disinfecting syringes contaminated with blood containing HIV. It has been found that even a single rinse with water will reduce the HIV in a contaminated syringe by 70%, with the best results (more than 95%) obtained by either using undiluted bleach or the “2 x 2 x 2” method [14]: flush twice with clean water; flush twice with full-strength bleach; and flush twice with clean water. None of these methods kills or removes all of the virus and research shows that methods such as “2 x 2 x 2” are practised poorly outside the laboratory. When drug users have no injecting equipment and are reusing someone else’s needle and syringe, their ability to follow all these steps carefully is often diminished. It is theorized that the very high levels of hepatitis C prevalence among injecting drug users in many countries where HIV prevalence among injectors has remained low may be caused by a reliance on disinfection methods rather than ensuring that a sterile needle and syringe is used for every injection. In 2005, and again in 2007, WHO recommended that bleach be provided only as an adjunct to NSP and should be accompanied with clear information stating the limited effectiveness and instructions on how to sterilise effectively [15].

Other services: Section III describes the spectrum of services that NSPs should provide or help clients to access through other agencies. These include education, first aid for abscesses and other minor ailments, low-threshold drug treatment (especially opioid substitution therapy), voluntary HIV testing (accompanied by pre- and post-test counselling), diagnosis and treatment of sexually transmitted infections, and antiretroviral therapy and medication for opportunistic infections associated with HIV. Where possible, legal and social support, care and support for HIV-positive injecting drug users, access to drug user-friendly health-care, and other services should be added as needed.

C. Stock orders, storage and disposal

It may be difficult to estimate how many needles and syringes will be needed in the first year owing to unknown factors. Unknowns may include the time needed to establish the location of the programme, recruit staff and satisfy the regulatory requirements of city authorities and police; the time needed to contact and recruit injecting drug users to the service (this varies widely from place to place); and seasonal variations in demand for injecting equipment. To arrive at a figure, the results of a rapid assessment and response survey (RAR) can be used to estimate the target number of injecting drug users to be reached on a regular basis (at least monthly) by the 12th month of the project: a useful rule-of-thumb is that 10% should be reached in this way by this time. This means that, in a city with 10,000 injecting drug users, the NSP should be accessed by at least 1000 on a regular basis by the end of its first year. If the NSP is to be effective in changing behaviours, each of these regular clients should be receiving at least three needles and syringes per week (or an average of 3000 needles and syringes per week). The estimation process for an NSP in the above situation would therefore look something like:

Months 1-3 (set-up phase):	
0 per week:	0
Months 4-6 (initiation phase):	
500 per week average x 13 weeks:	6500
Months 7-9:	
1500 per week average x 13 weeks:	19,500
Months 10-12:	
2500 per week on average x 13 weeks ¹ :	32,500
Annual estimate (first year):	58,500

It should be noted that these calculations, though based on the experience of setting up NSPs in many countries, are not applicable for every situation. For example, in districts with fewer than 1000 injecting drug users, some programmes have been able to gain access to 40% or more of drug injectors by month 12. Also, the figure of three needles and syringes per regular client per week is not optimal. Many guides and government strategies on needle and syringe provision state that the target is to provide every injecting drug user with sterile

injecting equipment for every injection. This is to be applauded but even the largest NSP systems in the world have not yet been able to attain this goal. As well, keep in mind that this calculation process is only for the first year. Over time, many more injecting drug users should be reached on a regular basis and the number of needles and syringes distributed per client should increase.

An added complication is that injecting drug users may require a range of different needles and syringes depending on the drugs injected, the state of the user's veins, peer norms, personal preferences and so on. On numerous occasions, NSPs have been established and stocked with a type of syringe that drug users will not or cannot use to inject. This is not only wasteful, it diminishes rather than enhances trust between drug users and NSP staff. It has been recommended [16] that a survey be undertaken among drug users of the types of needles and syringes they favour and that these results be extrapolated for the calculation process described above. For example, if a survey indicates that 40% of drug injectors use a 2ml syringe, 50% use a 1ml and 10% use a 5ml syringe, then these same percentages are used for calculating monthly budgets for syringe purchases. Substantial contingency budgets (10% or more of the total needle and syringe procurement budget) should be included to allow for adjustment of these percentages once the NSP is operational.

Similar processes will be needed for estimating the number of other items to be distributed. In general, one alcohol swab, container of sterile water, cooker and filter should be provided for each syringe distributed. Educational materials (apart from stickers on injecting kits, etc.) are usually provided at a rate of one with every syringe distributed in the first few months of the programme, then at a much lower rate (closer to one in 20) as most clients have already received the material. For this reason, new educational materials must be developed on a regular basis. Condom distribution varies widely by culture and type of drugs used. A safe estimate is that about half as many condoms will be needed as needles and syringes (unless sex workers are a large proportion of clients, in which case condoms may outnumber syringes). A sachet of lubricant should be provided with each condom. In addition, if first aid or other services are to be provided, estimates will be needed for bandages, medications and other medical supplies.

¹ While the NSP should be providing at least 3000 needles and syringes per week under this model by month 12, it is still building towards that figure in months 10 and 11: hence the lower average across the three months of 2500 needles and syringes per week.

Special measures for managing stock

The success of an NSP may be determined by how well it handles the ordering, supplying, storing and disposing of its needles, syringes and other stock. All staff should, therefore, know something about how this is done, and record-keeping and monitoring systems need to be reviewed regularly, especially when the service is expanding. Mistakes in this area can be disastrous. In one case in Asia, a needle and syringe programme stopped operating for several months when it ran out of injecting equipment. This happened when the manager, who had always been responsible for ordering, went away. Local drug users began to share injecting equipment more frequently. This led to a doubling in prevalence of HIV over a short period in this population.

To avoid problems, develop a stock management system and do regular stock inspections so that, at all times, the manager of the programme knows how many needles, syringes and other products are in stock. At all times it is important to have more than enough stock to cope with delays caused by ordering or other problems. Some organizations have a policy of always having three months' supply of all essential items in stock. The minimum stock level should be reviewed regularly to ensure that it is adequate—especially if the service is expanding. Annex B provides a stock management form that can be used by most NSPs.

As well, every NSP needs a set of rules on ways to transport and dispose of used injecting equipment. This equipment can be a serious hazard for staff and the NSP should consider itself responsible for all steps in the disposal process from collection of used equipment from drug injectors until the equipment is ultimately destroyed. See Annex C.

D. Modes of service delivery

Fixed sites

Of the options available, fixed-site needle and syringe programmes are the simplest. The environment of a fixed-site service can be designed to ensure that it is friendly for service users, that staff safety is assured, and that there is adequate storage. At a fixed-site it also easy to offer additional services such as health care and testing and counselling for HIV and hepatitis. At its best, the site will have different rooms for each of the services offered. Fixed sites are often converted offices or shops and have a reception area at the front and rooms behind. The reception area can be used by clients who drop-in and for giving out new, and receiving used, injecting equipment. The back rooms can be used for storage, counselling, medical assistance, individual and group education, staff meetings and so on.

Fixed-site services are usually set up in response to assessments that indicate there is either a fairly open drug scene—where drugs are bought and sold openly in the street or parks, for example—or a large number of injecting drug users in one part of the city. For instance, if the assessment finds that about 10% of the city's 2000 injecting drug users come into an area every day, and that these people are in touch with another 30–40% of the city's injectors, a fixed-site NSP might be started in suitable premises in or

near to this part of town. Ideally such a service would be open every day during the hours when most drug users are in the area. If space or staff in an existing facility is available, this could also weigh in favour of a fixed site; however, managers should first ascertain whether the facility is accessible and appropriate.

The location and size of the site should be informed by the findings of the initial assessment. Factors to consider are the number of people expected to visit the site; where injecting drug users live and buy and sell drugs; availability of public and private transport; population density; and the services to be provided and number of staff to be employed by the programme.

Fixed-site NSPs should have an office with a door that locks, where reports can be written and the computer, files, cash and other important equipment can be kept. There should also be a lockable storage room. Although many services also use the office for counselling or medical services, this is often inconvenient; where possible, therefore, the site should have separate rooms for these other services. These rooms will also provide a private venue for counselling.

A convenient location is probably the most important feature of a fixed-site. Over the years, needle and syringe programmes have started in strange places.

One opened in rooms on the third floor of a huge hospital, with no signs, so that drug users needed the guidance of security guards and nurses to get to it. Such obstacles are serious as drug users do not return and, worse, advise their friends against using the NSP. At first, injecting drug users are often suspicious, so they may want to get in and out of an NSP site as quickly as possible and will want to remain anonymous. Where possible, therefore, fixed sites should have two entrances so that clients can enter one way and exit by another.

Mobile programmes

These normally operate from a van or bus (coach). In a van, there is a driver in the front and at least one worker who provides and collects injecting equipment through a door or window at the back. Large buses (coaches) function more like fixed sites, with needle-syringe services at the front and counselling,

medical and other rooms at the back. A mobile service is often more expensive than a fixed site because it requires the purchase and maintenance of a vehicle, as well as access to additional office and storage space. Mobile services also need secure parking garages, fuel, insurance and, of course, a driver.

Mobile services are often easier for local residents to cope with and can overcome opposition focused on a fixed site. If the initial assessment finds that there are several distant areas frequented by drug users, programme planners are sometimes faced with a choice between starting two or more fixed-site services (as done in large cities) or a mobile service. Sometimes mobile services are set up in conjunction with fixed sites. The fixed sites operate in areas close to a large number of drug users and/or with good public transport links, and the mobile unit travels from there to areas with smaller numbers of drug users.

Why Macedonians opted for a mobile NSP

The geography and poor public transport of Skopje, Macedonia, made it difficult for many injectors to access the fixed-site needle and syringe programme. Police harassment of clients on their way to and from the programme also conspired against the use of a fixed site. An outreach team including drug users aimed to overcome these barriers, however, its members were also regularly harassed by police and they found it difficult to carry clean equipment to clients or to return to base with used equipment. In addition, the intense fear generated among injectors by police put the outreach workers at risk of attack, as potential clients mistrusted anybody approaching them. These factors led to the start of a mobile service in Skopje, which overcame many of these problems.

Other key issues to address before starting a mobile service include the size of vehicle and its schedule. The vehicle should be large enough for one or two members of staff to sit comfortably in the rear to give out and receive injecting equipment—this is doubly important in cold climates. The choice of vehicle should also be determined by the NSP's budget, proposed services, size of clientele, and the availability of parking (or garaging) facilities. The schedule must be realistic, allowing for traffic and other delays and take into account when drug users are likely to use the service. It should also allow for routine maintenance of the vehicle, as any breakdowns will leave people without injecting equipment and undermine trust in the programme. Drivers must be adept in dealing with injecting drug users and be well trained, as even a small accident requiring repairs can disrupt services. Arrangements must be made so that the van can be restocked from secure and accessible, storerooms and be within easy range of the programme's office space and administrative support. As well, the sched-

ule of the mobile NSP must be well publicized so that injecting drug users know when and where to find it.

Outreach programmes

At their simplest, these involve a person going to apartments where there are injecting drug users, with a bag containing new injecting equipment, a puncture-resistant bin for used needles and syringes and some leaflets. Of the three main modes of NSP, the outreach/backpack is the easiest to start, but it can be difficult to maintain. Outreach methods may, however, be called for if an initial assessment finds that most injecting drug users inject in apartments; police activities are making drug users afraid to congregate; or the population of drug users is widely dispersed.

Outreach may also be the best option when NSPs have little funding. This has been the preferred mode of delivery of NSP in cities such as Kolkata (Calcutta) in India, where small groups of drug injectors are found in many different parts of the city, and there is

no open scene of drug buying and selling. Often outreach services are set up to complement the work of fixed-site or mobile exchanges when it is apparent that there is a significant number of injectors who are not making use of the service. Outreach workers can then go out, make the contacts and encourage people to use more comprehensive services.

Outreach programmes can be started quickly, at low cost and with just one person. Outreach alone, however, will have limited effect as it provides fewer opportunities for education and other services that require more time and a measure of privacy. Also, additional precautions are needed to ensure the safety of outreach workers as both service users and police can be hostile towards them.

Syringe-vending machines

The Netherlands, Germany, Italy and Australia are among the countries now using these in support of NSPs. Syringe-vending machines typically accept coins or tokens (or a used syringe in the case of a syringe-exchange machine) and dispense a “harm reduction pack”. In Australia, this pack includes several needles and syringes, alcohol swabs, cotton wool, sterile water and a spoon. Educational materials are often included in these packs, sometimes as stickers on the packs. The machines are mounted on a wall at a height that makes it difficult for children to reach the coin slot. It is unmarked except with instructions and a needle exchange logo (this has two arrows, one red and one white in a circle, with no words, but is instantly recognisable to drug injectors) and its contents are hidden to avoid the attention of non-users. The machines are often installed on the outside walls at fixed-site NSPs, though some are installed in places where there are no other sources of needles and syringes. The machines are accessible 24 hours a day, seven days a week. The Australian experience of vending machines since 1990 has been described in several studies [17].

Machines should be located in an area where injecting is known to occur and where drug injectors can access the machine without fear of police surveillance or other harassment. As with any vending machines, there can be mechanical problems. This may lead to frustration and vandalism of the machine. Issues to consider with vending machines is who must take responsibility for stock filling and emptying as well as for maintenance and repairs. The machines are also very limited in their ability to provide NSP services other than just provision and disposal of injecting equipment, so they are most usefully considered as an adjunct to other modes of NSP.

Range of modes

As the main goal of any NSP is to maximize access to sterile needles and syringes among injecting drug users in a given area, it may be necessary over time to provide a range of modes of service delivery. For example, in Pskov in Russian Federation, the fixed-site NSP was established in August 1998 and its first staff member began work one month later by providing peer outreach services. An injecting drug user, she was married to a Roma man, who was also an active injecting drug user and, at that point, in prison. As well as distributing clean needles and syringes, she managed to attract new outreach workers and volunteers—mostly other Roma, at first. By 2003, however, the harm reduction project of the Pskov Oblast AIDS Centre comprised 22 staff, including the project director, project coordinator, outreach manager, driver, six outreach workers, including three former injecting drug users and one active injecting drug user, and eight unpaid volunteers. The needle-exchange services are now provided from a fixed-site in Pskov, a mobile unit, which operates in Pskov and a nearby town, and by outreach (on the street, as well as in the railway station and drug users’ apartments. The bulk of needles and syringes are distributed and exchanged through secondary distribution in some 50 apartments. The programme provides social assistance to outreach workers, including assistance with finding work, as well as the possibility of working part-time. Outreach work takes place from 9am to 7pm, Monday to Friday, and the outreach team meets to provide daily reports.

Pharmacies

The advantage of pharmacy NSP is that in most areas a network of pharmacies already exist (usually in greater numbers and located closer to drug injectors’ homes than most fixed-site NSPs) and their opening hours are often more convenient than those of fixed-site NSPs. However, there are several disadvantages to pharmacy NSPs. First, many pharmacists do not like providing services (or even selling injecting equipment) to injecting drug users, though this may be overcome by providing information to pharmacists on their role in preventing and controlling HIV epidemics. As well, pharmacies are usually private businesses, so their owners usually need a financial incentive to provide services to injecting drug users, and larger incentives are needed to persuade pharmacists to also dispose of equipment. Another shortcoming is that pharmacy NSPs rarely offers opportunities for education and additional services.

Pharmacy programmes operate in a number of ways. Some simply sell needles and syringes to customers

(who may include drug users); others provide a needle and syringe package (or injecting kit) in exchange for vouchers. Injecting kits usually include a number of needles and syringes and other injecting equipment in a container of some sort. In the Australian system, the container doubles as a puncture-proof vessel for carrying used needles and syringes to a disposal point. Pharmacies may be the sales or distribution point for these kits or may act as both distribution and disposal point. Voucher systems normally

use vouchers distributed by outreach workers or by satellite agencies: these vouchers are redeemable at participating pharmacies for injecting equipment.

Pharmacy NSPs distributing injection kits are rare, particularly in low income countries. In some developed countries, pharmacy NSPs are used as an adjunct to large NSPs. Pharmacy NSPs using voucher schemes are also unusual, but these have been tested in recent clinical trials in developing countries.

Pharmacies provide clean needles and syringes on heroin route

In 2002, a cross-border HIV prevention project was launched in Ning Ming County, Guangxi Province, China and Lang Son Province, Vietnam [18]. This China-Vietnam border region lies along a major heroin transport route from Myanmar, Laos, and Thailand to Hong Kong. Surveys of injecting drug users in 2002 found HIV prevalence of 46% in Lang Son and 17% in Ning Ming. The project uses vouchers distributed by outreach workers which can be redeemed at pharmacies [19]. Pharmacy sale of needles and syringes is legal in both Vietnam and China but it is difficult for injecting drug users to persuade pharmacists to sell them injecting equipment. Project teams in both countries tried to recruit “friendly” pharmacies nearest to the border and in locations that were convenient to people frequenting popular injecting places. Four pharmacies and two clinics are participating on the Chinese side and 22 in Vietnam. In China, each participating pharmacist receives a fixed monthly stipend and a free supply of needles/syringes. In Vietnam, there is no fixed payment to participating pharmacies, but they are reimbursed each month for the vouchers they redeem. Reports from the project suggest that, with sufficient advocacy among political leaders, police, pharmacists and community leaders, the voucher system is attracting substantial numbers of injecting drug users and experiencing few problems.

E. Staff and volunteer recruitment and training

Decisions about who should be employed in an NSP need to be based on an understanding of the local situation, the ability of the organization to employ people from different groups, and the combination of staff skills that will achieve the most effective results. There is a need to consider how many staff will be needed for the programme and whether they should be paid or volunteers or a combination of both. One must also assess whether staff should include people who do not use drugs, current drug users, ex-drug users or a combination of these groups. Staff costs are often a major component of expenditure, so it is important that numbers be minimized, and that the majority of staff deliver services to clients.

There are advantages to paying staff. NSPs that have moved from voluntary to paid staff have often found that this increases the commitment and improves the work of the staff. Most NSPs have found that it is impossible to offer an effective service staffed only by volunteers. In practical terms, people with no other means of support—including drug users and ex-users—are unlikely to be willing or able to keep working without some

payment. However, in some countries and some institutions, it is impossible to employ active drug users as full staff members. Management needs to weigh up these and other factors before deciding on the mix of paid and volunteer staff. Generic job descriptions for staff are provided at Annex D.

Selection criteria should be developed by considering the attributes sought in an NSP worker. An advisory group can assist in this process and be a useful part of the management structure. Most NSPs find that the most important attribute of an NSP worker is credibility among targeted networks of injecting drug users. Other useful attributes and skills of recruits include a positive and open-minded attitude towards drug users; knowledge and experience of drug use, harm reduction and HIV; the ability to control one’s own use of drugs; maturity and emotional stability; good communication skills; and counselling experience and office skills.

It is best if NSP teams include both male and female workers of different ages and ethnic backgrounds to ensure that all injecting drug users feel comfortable with at least some members of the team. Programme implementers should also gauge the

extent to which the potential NSP worker's knowledge and access to networks of drug users will contribute to the programme.

Potential NSP workers may be found in places where drug injectors congregate, in drug treatment centres and other services already accessed by injecting drug users and in high schools and universities. They may also be found in bars and clubs and by advertising in community outlets and the media. Snowballing can be an effective recruitment method. Once a good candidate is found, he or she can seek out other candidates among friends and acquaintances.

Active drug users can be effective members of staff, but their commitment to working for the NSP may be undermined by the demands of feeding an addiction and unfamiliarity with work norms (e.g. keeping regular working hours, being reliable and so on). In addition, drug injectors may be too involved with their peers to address difficult issues such as unsafe injecting or sexual behaviour. These issues are sometimes resolved through training and support (including close and careful supervision); or through employing people who have been stabilized on methadone or other substitution therapies.

Former drug users may be more capable of working within typical work structures and can serve as role models for NSP clients. Some can draw from their experiences to help current injecting drug users modify unsafe behaviours. Former users may also be able to draw on their personal experience in providing advice and referrals for treatment and be able to build support in treatment agencies for the needle and syringe programmes.

However, there can be difficulties. Ex-users' knowledge of drug-using practices may be out of date and they may have less access to drug users and drug-using locations than active users would. Their personal safety also needs to be considered as constant exposure to drugs and drug users, combined with the stresses of work, can lead to relapse. In particular, former users need personal and professional supervision, and a management structure that has contingency plans to respond positively to these hazards. Furthermore it cannot be assumed that ex-drug users will be sympathetic and non-judgemental towards drug users. The realignment of attitudes that ex-users have had to undergo to get, and stay, drug-free can leave them with a harsh, judgemental attitude to current drug users. It may not be possible to resolve these problems through training and supervision.

Non-users can be effective NSP workers, but they may have to overcome mistrust and prejudice towards and from the clients. If they have a background in social work, psychology or sociology, they may well bring valuable training and knowledge to assist the programme team.

Many programmes employ a mixed group of active drug users, ex- and non-drug users. A mixed group provides many advantages, including the sharing of ideas, increasing mutual respect and balancing out differences. However, staff from different backgrounds may find themselves in conflict. People may have different interests and priorities, and there may be problems around status between ex-users and active users or volunteers and paid staff. The careful and sensible division of tasks with, for instance, drug users doing street outreach and education, and non-users having roles such as liaison with the police and city officials, team management, accounting and so on, can help to maximize the benefits and reduce conflict.

It is crucial that comprehensive training be provided to recruits, with the NSP workers and advisory group (see annex A) members being involved in its development. The length and content of training will depend on the goal and objectives of the outreach programme, as well as the needs of the NSP workers. Training should be compulsory, so that no one is ill-equipped to carry out the programme activities. It can take place over a short period (5-10 days) or be provided in more brief instalments over several weeks. Shorter programmes can develop skills quickly and enable a programme to start with a trained team. Programmes provided over longer periods can serve to develop group cohesion and begin to instill in outreach workers a habit of ongoing learning.

Training is important to ensure consistency across staff members, even though new staff may have prior experience working in NSPs, with injecting drug users and other marginalized populations, or have other important skills. Staff training for HIV prevention programmes should address the purpose of the programme; target populations; risk behaviours for transmission of HIV (and other blood-borne pathogens); safer sex, injection and drug use practices; job responsibilities; interpersonal boundaries; and first aid [20]. A comprehensive set of training programmes for project planners, implementers, managers and staff have been developed by WHO for outreach projects targeting injecting drug users [21]. These materials are a good basis on which to develop locally specific training materials.

Outreach training and assessment

An important part of peer intervention training is practical work with an experienced outreach worker, where the novice shadows and observes the work in action. If the outreach programme has not yet started, it may be possible to gain this experience with another nearby outreach programme. In some cases, recruitment and assessment processes are combined in introductory training sessions, where the programme is described and the role of the NSP worker is outlined. In this model, the assessment process takes place throughout training and continues during the NSP worker's initial involvement with the programme. Supervision sessions can be used to address issues and problems around suitability as and when they arise, and a contract or work agreement can be signed once the applicant has shown that he or she can carry out all the tasks required.

Managers of NSPs for specific populations of drug injectors such as youth, women, sex workers and prisoners should follow the same steps for recruitment and training outlined above, with minor changes related to their target populations (for example, NSPs for young people need younger staff). In pharmacy NSPs, there is usually no need for comprehensive training; but in several countries with pharmacy programmes, pharmacists participate in a half-day of training prior to offering NSP services.

F. Standardized monitoring processes

Monitoring is required for several purposes, including tracking an NSP's progress towards achieving its objectives and ensuring that all NSPs and other services in a city or district are reaching as many injecting drug users as possible. Basic monitoring processes should, therefore, be standardized across programmes in each country to allow for comparison and the gathering of national statistics.

It is recommended that NSP workers be provided with forms and personal journals (or log books) for monitoring their work. An Activity Reporting Form records the staff member's name; the date, time and location (or context) of contact with injecting drug users; the Unique Identification Code² of the client; the commodities provided (needles and syringes, educational materials, condoms and so on); and the services provided or referrals made.

NSP workers are asked to fill in the fields on the Activity Reporting Form for each contact made. In the case of brief outreach contacts, it may not be possible to collect unique identifier information or

other data: this data should be collected on repeat contacts when a level of trust has been established with clients. Data from these forms are then entered daily, ideally, into a computer database (or kept securely in folders if no computers are available). See Annex E for an example of this form.

Staff are also encouraged to make daily entries in personal journals or log books. These are for recording specific issues such as problems; feelings; questions that are hard to answer; situations in which the worker feels uncomfortable or insecure; comments by clients about the NSP; and comments by clients and other influential individuals about the external environment. These documents also allow for the recording of information about the types of drugs being injected, needle sharing behaviour and the usual method of disposal of equipment.

These personal journals should be brought to weekly team meetings, so that NSP workers can consult them in reporting on the week's activities and to encourage discussion of problems, training needs, and other issues to address. To overcome worker apathy and client fears, regular report-backs can assist everyone in understanding why data and feedback are so important. For example, monthly or quarterly reports on process evaluation can be shared at team meetings and injecting drug user and advisory group meetings; and annual or biennial data collection about changes in drug use and other behaviour can be presented at special meetings of all agencies working on drugs and HIV in an area. Besides assessment and monitoring of the target population, their patterns of drug use and risk behaviour, this also helps to raise the profile of the NSP and to encourage closer links with referral organizations.

2 A Unique Identification Coding system should be developed to track client usage of services anonymously. One version developed in Central Asia records the first two letters of the mother's maiden name, the first two letters of the father's first name, the sex (1 for male; 2 for female), and the last two digits of the year of birth.

G. Advocacy: first steps

While a range of advocacy activities is useful, one set of activities is essential: establishing a working relationship with the police and local authorities. It can be difficult for police and other authorities to see that the purpose of an NSP is the promotion of public health and social well-being and not the promotion of drug use. Managers, therefore, will need to brief local authorities on the experience of NSPs worldwide and emphasize the diverse benefits of these programmes.³

The most effective way to develop a working relationship with police is to identify an influential senior police officer who is (or can be persuaded to be) sympathetic to the NSP's work and who is able to ensure that the NSP can operate without interference. If this is not possible, seek a sympathetic government official who is senior to the police and who can direct them to cooperate with the NSP. In either case, it is best to get a letter from the police confirming that they will support or—at very least—not interfere with the programme's operations.

A mechanism is also needed to deal with problems related to policing and NSPs. These almost always occur as high-level agreements about police policy on such matters as NSPs are often not communicated to (or are ignored by) officers on the street, who then harass programme workers and their clients. The usual mechanism is to arrange regular meetings at a senior level between police and health (and possibly city) officials or a protocol for calling meetings at short notice if problems arise. If possible, these arrangements should be agreed in writing. These meetings can be "sold" as a two-way process, with benefits for the police who can use it as a forum to raise any problems they have with the programme, as well as a way for the NSP to raise problems with police behaviour.

Much care is needed in balancing a programme's relationship with the police and its relationship with drug users. Evidence of collusion or collaboration with the police—even if thought by the programme to be beneficial—can undermine the credibility of an NSP with its clients. Communications of this type should always be carried out by an identified person (usually the project manager), who will have to judge the optimum relationship with the police according to local conditions.

The law of the street

There is always certain discretion between what the law says and what police actually do: this is referred to in some literature as the gap between law on the books and law on the street. Over the long term, NSP managers need to examine police practice (rather than become too concerned with the law) and work with police departments to use management tools (such as standard operating procedures and performance reviews) to change police behaviour. Collaborations between police and health agencies can lead to innovations in training, service delivery and health promotion among injecting drug users [22].

An example of this type of collaboration took place in Amsterdam. The NSP promoted at that time the exchange of used needles and syringes for clean, unused equipment; so a used needle and syringe was a valuable object to a drug user. Therefore, when the police would arrest and confiscate syringes they would give vouchers to people upon their release. The voucher provided a new syringe from the NSP.

If possible, NSP managers should ensure that local police are trained to understand the ways HIV is transmitted and prevented, the role of NSPs in preventing HIV epidemics and assisting drug users into drug treatment and other health care services, working methods of NSPs and how police actions can assist or impede NSP activities. If needed, training can be provided to police recruits and those already on duty, through national harm reduction networks or other expert bodies. Training can assist in reducing police officers' stigmatization of injecting drug users, and can lead to decreased interference with the work of NSPs. Adoption of harm reduction as a policy at the department level, as has occurred in some jurisdictions, may enhance the effect of training.

³ In 2007, the following countries had implemented needle and syringe programmes: Afghanistan, Albania, Argentina, Armenia, Australia, Azerbaijan, Bangladesh, Belarus, Belgium, Bosnia and Herzegovina, Brazil, Bulgaria, Cambodia, Canada, Chile, China, Croatia, Czech Republic, Estonia, France, Georgia, Germany, Greece, Hungary, India, Indonesia, Iran, Ireland, Italy, Kazakhstan, Kyrgyz Republic, Latvia, Lithuania, Luxembourg, Macedonia, Malaysia, Mexico, Moldova, Myanmar, Nepal, Netherlands, New Zealand, Pakistan, Philippines, Poland, Romania, Russian Federation, Salvador, Serbia and Montenegro, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Tajikistan, Thailand, Turkmenistan, Ukraine, United Kingdom, United States of America, Uzbekistan and Vietnam.

A study of needle and syringe programmes that have reached high coverage in low and middle income countries found that the programmes were controversial in every country studied. But, in each site, careful thought and substantial work was devoted to overcoming community fears and government concerns about the programmes. In several sites, at least part of the work of several salaried workers was

devoted to advocacy on these issues. In some cases, such as in Dhaka and Rajshahi (Bangladesh), specific staff positions were dedicated to advocacy, including advocacy to ensure that programmes received community and political support. Achieving this support at many levels (including with the community in the immediate neighborhood of services) required advocacy, formal and informal meetings, public information campaigns, involvement by program managers in multi-sectoral AIDS and drugs committees and, in most cases, a careful building of relationships with selected representatives from mass media. In addition, regular evaluations and dissemination of evaluation results helped to build political and community support. In some cases, political support led to policies and laws that called for specific HIV services to be provided and government funding to ensure that programmes are implemented [23].

For further discussion of advocacy, see “Managing external relationships” in section IV.

H. Policies and procedures

Development of policies and procedures is often overlooked during the establishment of needle and syringe programmes. Policies are general guidelines that describe the programme activities, modes of operation and rules. Procedures are detailed steps for doing each task. All programmes have policies and procedures, although in some services they are not written down. However, the preparation of clear written policies is a useful investment of time. When the staff and advisory group members are involved, everyone becomes more aware of difficult issues and learns to respect the policies and procedures. The finished document can then inform practice, be used for staff training and for establishing credibility with outside agencies such as the police, local businesses and neighbours. As circumstances change policies may need to be adjusted or new policies developed.

Among the most important policies of NSPs are those that govern the exchange of needles and syringes. Programme policies vary. The strictest allow only “one-for-one” exchange (one syringe is provided for each syringe returned). More lenient programmes

allow “one-for-one-plus” forms of exchange, in which a client without a syringe to exchange can still receive one or two syringes (though clients are encouraged to provide a syringe for each syringe distributed). Other policies provide for “capped distribution” where clients can receive up to a set number of syringes per day (6 or 10, for example) no matter how many syringes they return. The most generous exchange policies, however, allow for “unlimited distribution” in which clients are provided with as many syringes as they want, irrespective of how many they return.

Each of these policies has advantages and disadvantages but international practice suggests that only those programmes that operate towards the “unlimited distribution” end of the continuum are likely to achieve high coverage.

Strict “one-for-one” exchange is often the starting point for NSPs in countries where there is great distrust and suspicion of expanding access to needles and syringes for injecting drug users. Also, it is considered to help prevent needle-stick accidents in the community. For pilot programming this policy may be acceptable to assist government and law enforcement staff to evaluate the effects of NSP on uptake of drug injecting, on its effectiveness in a country where it has not been done before. There is evidence, however, that this form of exchange leads to significant problems. First, drug users are forced to find a used needle before they can receive a new one—a bottleneck for exchange as, under pressure from police and others, injectors often dispose of injecting equipment as soon as possible. In addition, drug use often happens late at night in various circumstances. If a drug user is issued only one syringe (which is disposed of immediately after use) and then finds an opportunity later to have another injection, the person may have no option but to re-use someone else’s syringe. This scenario is only too common as the purity of drugs purchased on the black market varies greatly so drug users who inject once, thinking the dose will be sufficient to prevent withdrawal, often find that their drug has been “cut” with other substances, resulting in a lower than expected dose. A second injection will then be needed to prevent withdrawal.

Exchange policy contributed to HIV explosion in Canada

Canadian studies have found that strict “one-for-one” policies don’t work in areas with high numbers of stimulant injectors. People who inject cocaine or amphetamines often do so 10 or more times in a night. These drug users are at high risk, therefore, of acquiring and passing on HIV and require substantially more needles and syringes than opioid users. The explosion of HIV among drug-users in Vancouver (a city with a substantial NSP) in the late 1990s has been attributed to several causes, including a “one-for-one” exchange policy [24].

Despite their benefits, policies that allow unlimited distribution of needles and syringes can pose problems. In some places, unlimited distribution free of charge has led to drug users or drug dealers selling syringes either directly to drug injectors or to pharmacies. This can be overcome by educating clients so that they understand that such actions threaten the viability of NSPs and the health of all those who depend on them. In Dhaka, Bangladesh, the NSP provided education sessions for pharmacists to explain the NSP's role and to ask them not to buy needles and syringes from drug users. It has also been found that, as NSPs reach high levels of coverage, the widespread availability of free needles and syringes through a variety of outlets reduces the likelihood that drug users or dealers can charge for injecting equipment.

Some NSPs also develop an overarching policy for all their work with injecting drug users. A "no closed door" policy, for example, stipulates that whenever a drug injector seeks the assistance of an NSP, he or she will be given help of some kind. The Chicago Recovery Alliance in the United States has slogans such as "any positive change", meaning that any movement by their clients towards better health or a better life will be encouraged by NSP staff. This type of policy can help NSPs to consider new products and services and to decide on priorities for their work.

A range of staff policies, procedures and rules should also be developed to manage programmes effectively. These should include:

- ▶ Staff recruitment procedures covering job postings, interviews, final selection and training;
- ▶ An information policy covering how information flows through the programme, monitoring processes, log books and records of team meetings;
- ▶ Staff supervision policies and procedures covering the frequency and scope of meetings; and
- ▶ Disciplinary policy and procedure.

Rules are also needed to protect staff and the NSP. Typically these state that workers must carry work identification and business cards when on duty, always work in pairs on the street or in apartments and not use drugs on the premises of the NSP or be intoxicated while on duty. They also require that staff do not engage in drug dealing, do not allow personal relationships to interfere with their work and follow standard procedures if harassed or arrested

or if clients are aggressive or violent towards them. A clear protocol is also needed in the event that staff suffer needle-stick injuries (see one such protocol in Annex F).

III. DEVELOPING A SPECTRUM OF SERVICES

A. Adding services

Core services that need to be provided by an NSP or its collaborators include education, first aid for abscesses and other minor ailments, low-threshold drug treatment (especially opioid substitution therapy and outpatient drug treatment), voluntary HIV testing (with pre- and post-test counselling), diagnosis and treatment of sexually transmitted infections, and (for HIV-positive clients) antiretroviral therapy and medication for opportunistic infections. Where possible, as needed, legal and social support, care and support for HIV-positive injecting drug users, access to drug user-friendly health and medical attention, and other services should be added.

The NSP can hire staff to provide these services, or they can be provided by other agencies through referral. A referral network requires a database to list all the services injecting drug users might need to access in the locality to meet their health, legal, social and welfare needs. This database is developed by thinking from the viewpoint of a local drug injector and considering what resources are available at the local level. Needs of local injecting drug users can be ascertained through conversations with clients by NSP workers (who should note down service needs in their journals or log books) or through a short questionnaire asking injecting drug users about their problems and needs. The Advisory Group can also assist this process. Where needs exist but no agencies appear able to meet those needs, NSP managers may need to advocate for these services or provide them through the NSP.

Negotiations should be carried out with each referral agency, explaining the role of the NSP and learning about each agency's services, client characteristics, methods of access, and so on. Outreach workers then need to be trained in use of the referral database, and policy decisions need to be made about how much assistance NSP workers provide during referral.

B. Education

Provision of information and education is essential if NSPs are to prevent the spread of HIV and hepatitis. NSP workers must keep in mind that every contact with an injector, however brief, is an opportunity to build a rapport and to disseminate critical information.

Outreach and initial education

Outreach and peer education have become the cornerstone of effective strategies to work with injecting drug users. The delivery of services for

sexually transmitted infections, health education, clean needles, and condoms may be best provided where drug injectors are found: in the street, parks, apartments or other venues. Outreach commonly targets "drug-using neighborhoods" and occurs during drug sales. This work therefore calls for brief interventions, as injectors prefer not to be delayed when purchasing and using drugs. Also, it can be dangerous for outreach staff to be seen with users, in hostile environments or where police harassment is common. Information, education and communication (IEC) materials can assist this process. Outreach is described in detail in a variety of WHO documents (see IV A&B, "Useful web sites and publications").

Drug users have been found to pass on and to receive large amounts of information about safer drug use, vein care and HIV prevention, but this tends to occur in the months and years after initiation to injection. Younger or less experienced injectors are rarely exposed to this information. Similarly, stimulant injectors may receive less information than opioid users, as most NSPs start by addressing the needs of the most visible injectors—who tend to be older and dependant on heroin [25]. Print and audio-visual materials seldom help these groups; instead peer educators need to be recruited to reach those drug users new to injecting, stimulant users and those who are more likely to stay hidden, such as female drug users.

Behaviour change

Important issues to consider, in any city or area, when adapting basic HIV prevention and health messages for an education programme or campaign include [26]:

- Local drug-using practices: Messages about safer behaviour need to be tailored to address the findings of NSP assessments of local injecting drug users (culture, gender, age and so on) and their prevailing modes of disease transmission.
- Language: Use language that is acceptable to, and understood by, the target group.
- Images: Choose these with care, as drug users who disapprove of images used in information materials may ignore the information and develop negative attitudes about it and the NSP.
- Embedded messages: Find out what injectors are interested in and consider ways of embedding HIV prevention messages in leaflets, posters and other media that address these topics.

Staff of NSPs also need to understand that behaviour change in the areas of drug use and sexual health cannot be accomplished simply by giving people lists of do's and don'ts. Drug injectors need sufficient information about the way their body works, how drugs affect their body, viral transmission, the risks of various practices and advice on how to change to or maintain safer behaviour.

Staff also need an understanding of how behaviour change occurs. It is generally believed that at least two levels of behaviour change are required to prevent or control an HIV epidemic among injecting drug users. At the level of the individual, the drug user is assisted through education and the provision of materials and services to move toward less risky behaviour. At the level of the group or social network, changing norms can have a great influence over individual behaviour and be vital in ensuring that individual decisions are supported by friends and others.

Changes in individual behaviour are thought to take place in a series of common stages: pre-contemplation, contemplation, ready for change, action, maintenance of change/ relapse to former behaviour. Some information on behaviour change and ways

that staff can assist clients at each stage are provided in Annex G.

Diffusion theory is often used to describe the process by which a new idea or behaviour or product is taken up by a group or network. The theory comes from studies of the diffusion of innovations. It consists of four main elements: innovation (the idea, practice or object that is perceived as new by an individual or group); communication channels (the means by which messages are exchanged); the social system; and the time it takes for the innovation to be adopted.

Communication channels can be centralized or decentralized. In centralized diffusion information about the innovation is passed on by an expert to potential adopters who are less expert (for example, when a surgical technique is taught by a professor to a group of trainee doctors). In decentralized diffusion there is a high degree of shared information among group members and the transfer of information is based on the assumption that the group members are able to manage the diffusion process themselves with little help from professional change agents or experts.

Diffusing information among injecting drug users

The diffusion of HIV-risk behaviour messages is different in distinct population groups—such as groups of injecting drug users—than in the general community. Members of distinct population groups generally bond together to cope with the ostracism and criticism, share values and beliefs to a higher degree than the rest of the population, bond through frequent interpersonal relationships and have the potential to act as powerful agents for or against change, by choosing to amplify or attenuate messages. Selection and training of change agents from within the target network is, therefore, more important than in the wider community. Members of the target group must perceive the people giving them the message as credible and trustworthy. Experience shows that innovations such as new, less risky drug preparation methods or injecting practices are communicated more effectively when drug users are engaged in planning and producing educational messages about the new methods.

Education methods

NSP workers can achieve a great deal in a short time through the imaginative use of different communications media [27]. For example, educational materials on topics of interest to injectors can create a talking point or can take the place of initial education in those situations where the drug user needs to leave quickly. Focusing on key topics with every service user over a given period can also be effective: for instance, by having a “spoons week”, during which paraphernalia risks are highlighted. NSPs have also found it worthwhile to develop and use short sayings or slogans such as “stay safe”, “shoot clean” or “look after yourself”. See Annex I for further information about this.

Such interventions make it more likely that users will think about their health and safer injecting and make it clear that NSP staff are happy to discuss these topics and answer questions, when the drug user has time. As one NSP worker said: “You need to always look for opportunities to talk about healthy behaviour: maybe you see a bandage or a bruise and you ask what happened or you show service users a draft of a new leaflet you are working on, and ask for their opinion on it.” However, it is important to note that one-to-one education in the context of outreach may be different, and depend on the role of the worker. A drug user employed as an outreach worker may be primarily working with his or her friends and

may simply provide clean injecting equipment and basic safer injecting information.

One-to-one education also occurs within institutional settings such as drug treatment centres, prisons, and hospitals, usually as part of a wider range of educational or counselling activities. People working in these settings may need to balance the need for education that assists a drug user to remain as healthy as possible with the need to abide by the operating philosophy of the institution. Staff in prisons and detoxification units, for example, may have to recognize the need to disseminate harm reduction messages and allow for more open discussion of drugs and drug use.

One-to-one education also occurs as part of pre- and post-test counselling for HIV or hepatitis antibody tests. Education at these points has been found to be effective in personalizing HIV or hepatitis and impressing on drug users the need for safe behaviours.

Group education can be provided in a range of settings. Much of it relies on the social networks that drug users form as these can have a positive effect on those members trying to change, or maintain safer behaviours. Conventional group education, in which an authoritative figure (doctor or drug treatment worker, for instance) leads the discussion and has control over the information may be ineffective unless this person has a keen awareness of the needs of the group.

Group education also takes place in institutional settings, where HIV education is often a topic for group discussion in drug treatment centres, jails and other closed settings. A common problem with group education in these settings is that institutional policies may not allow full and frank discussion of the ways that HIV can be transmitted and steps that can be taken to reduce the risk of transmission.

In drug treatment agencies, participants are usually encouraged to believe that they will remain drug-free after they leave the programme; hence staff sometimes think that there is no need to teach people about HIV prevention while in treatment. However, the high rate of relapse after treatment requires that drug users in recovery receive explicit information about safer injecting (and overdose risks) in case they return to injecting drug use.

Group education may also be useful for other members of the community. NSP staff often provide talks or seminars for police, drug treatment and hospital

staff, people from youth centres and committees, students of social work and other disciplines, and family members of drug users.

Another important method is to use targeted information, education and communication materials designed to be seen, read, understood and acted on by specific groups in a society. Targeted campaigns and programmes are used by NSPs to raise awareness about a programme's services and about HIV among injectors; provide information to injectors in a language and format that they understand and trust; and to personalize HIV prevention for subpopulations of drug users. See Annex H of this document for details on targeted IEC.

Education to reduce injection-related HIV risk behaviours

A common method of attracting a drug users' attention to HIV prevention messages related to drug use is to embed these messages in education on good injecting technique [28] (Annex J provides further details on this). Drug injectors should always be aware of the risk of acquiring infection from others, overdose and passing infection on to others. To this end, they should be encouraged, where possible, to do the following: use each needle and syringe just once; prepare injections with clean hands on a clean surface and clean the injecting site; and wash their hands before and after each injection.

Injecting drug users should be advised that if they are going to reuse equipment it is best to reuse their own. It is also important to advise people who keep syringes for reuse to mark and keep them in a safe place where they cannot be reached by others. The risk that someone else has used their syringe without their knowledge is an important reason for cleaning the syringe again before second use. If someone else's used needle or syringe is to be used, ensure that it is cleaned.

Education to reduce risky sexual behaviours

The main message to convey about sexual transmission of infections among and from injecting drug users is "always use a condom when having penetrative vaginal or anal sex [29]."

Efforts to promote condom use need to start with ensuring that drug injectors not only have correct knowledge about sexually transmitted infections, including HIV, and other diseases related to unsafe sex, but also a keen knowledge of correct condom use. This includes how to store them, check expiry

dates, open them, put them on, remove and dispose of them. Promotion of condoms must also include opportunities to demonstrate and practice condom use as part of building skills. Advice needs to focus on how to avoid problems such as slipping off, and what to do in case of condom breakage. It also needs to include accurate information about use of lubricants. Materials demonstrating correct use of condoms should be readily available and distributed along with condoms.

A hierarchical approach is recommended in which condoms are at the top of the list of safer sex options, but which also recognizes that individuals may not be able to use or negotiate condoms always, with all partners and in all situations. Therefore, condom promotion, and the development of negotiation skills must be accompanied by information and skills to practice safer sex options—for example, use of female condoms and diaphragms and less risky penetrative (e.g. using fingers) and non-penetrative sexual (e.g. massage, kissing, fantasies, masturbation) options. The risks associated with each sexual activity (protected and unprotected) must be explained clearly and can be presented in a hierarchical fashion.

Overdose education

Among injecting drug users, overdose is the leading cause of death [30]. Education and training of drug injectors about how to prevent, recognize and respond to overdoses is necessary to reduce overdose-related deaths. Annex K of this document provides examples of overdose prevention messages. Lack of knowledge about the signs and symptoms of overdose and about the lag time between consumption and onset of overdose symptoms may prevent injecting drug users from intervening or seeking help. Furthermore, drug users often have inaccurate knowledge about techniques likely to be helpful to someone experiencing an overdose, which could lead to harmful consequences.

Overdose prevention education often includes information and skills-building about how to recognize the signs of an overdose (deep snoring, slow or erratic heartbeat, passing out, etc.) and the risks of lowered tolerance. First aid training is also included in overdose education programmes for injecting drug users, their families and others who may be present during an overdose. Teaching clients the recovery position, mouth-to-mouth and cardio-pulmonary resuscitation (CPR) and basic life support techniques can be beneficial. Qualified staff should deliver training.

NSPs should give priority to providing overdose education to those injecting drug users at greatest risk of overdose. These include people who have a long history of injecting, exhibit high levels of drug use or intoxication or low tolerance and those who are homeless, suffering depression and have a history of using combinations of drugs and of overdosing in the past.

Providing NSP clients with naloxone (Narcan®) may reduce opioid related deaths. Naloxone can reduce fatal respiratory arrest caused by opioid overdose. There are some concerns about widespread implementation of this intervention as evidence about effectiveness, side effects and other harmful events when administered by persons other than medical professionals is generally lacking. But informal evaluations of naloxone provision by NSP clients in U.S. cities suggest that injecting drug users and their families can be trained in the use of this medication, and that a substantial number of fatal overdoses has been prevented by the swift provision of naloxone. It should be noted that the person who injects the naloxone needs to be certain the overdose was caused by opioids and not by other substances.

Other education

In some programmes, injecting drug users have become interested in hepatitis C and the way the liver works. This has led to publications and campaigns related to liver function, effects of hepatitis on the liver, ways to reduce the likelihood of cirrhosis, advice on living with hepatitis C and so on. Other NSPs have started literacy programmes among their clients or other forms of education such as training in office procedures and tasks (for young unemployed drug users who have never worked in an office); upgrading manual and technical skills to assist drug users to get jobs; training in advocacy and in working together to represent the needs of drug users to authorities. As with the other education described above, HIV prevention messages should be part of these training and other courses.

C. First aid, wound care and vaccinations

Injecting drug users who are homeless or marginalized typically have multiple health problems and are in need of primary care from providers open to working with them [31]. Many injecting drug users who attend NSPs lack such services. It is recommended that NSPs either incorporate such services (with “one-stop care”) or assist clients to access these services elsewhere. Many NSPs are able to

provide some aspects of preventive care at their own site through co-operative arrangements with public health staff or other health care providers in their community. The services most often provided are first aid and vaccination for hepatitis B (HBV), influenza, and other diseases.

In many low and middle income countries, injecting drug users are unwilling or unable to get treatment for wounds such as abscesses. These can rapidly become painful and dangerous, sometimes resulting in gangrene and amputation or death. All NSP workers can be trained in wound management or certain NSP workers (in drop-in centres, for instance) can provide these services.

HBV vaccination requires staff who have expertise in this, or collaborative arrangements with other professionals to either carry out vaccination clinics at the programme site or another location. As multiple doses of vaccine over several months are required, accurate record-keeping and administrative oversight are required to determine who requires vaccination and when. Furthermore, it is necessary to educate clients about the importance of following up at appropriate intervals. Similarly, NSPs need to recruit qualified staff or collaborate with professionals to immunize clients against influenza and pneumococcal pneumonia. Adverse reactions to these vaccinations may also call for medical supervision or emergency care. Influenza can generally be prevented or rendered less severe by a single vaccination annually, ideally provided prior to the beginning of the influenza season. Pneumococcal vaccination provides longer lasting immunity, so that booster doses are necessary every five years or so. Again, it is essential that good client records be kept of immunizations received and of any adverse effects from these.

In addition to provision of preventive services onsite, NSPs should also develop close working relationships with primary care providers to whom they can refer clients for ongoing clinical care. NSPs can improve access to such care for their clients by educating health-care providers about injecting drug users and how to work with them and about the effectiveness of harm reduction measures. NSPs can assist their clients to receive adequate care and to establish relationships with care providers by accompanying clients for initial or urgent care visits.

D. Drug treatment

Drug treatment is another effective method of preventing HIV infection among injecting drug users, and

should be developed simultaneously with NSPs in each city or district. Most treatment methods have been designed for a specific group of drug users and then been adapted for other groups, sometimes using different drugs, in other contexts and countries.

Counselling, either for groups or individuals, is an important component of drug dependence treatment. There are four key aspects of effective counselling (regardless of the drug treatment methods used). It should allow for the development of strategies with the client to cope with difficulties before they arise. Where appropriate, counselling should include specific evidenced-based interventions (see below). It should focus on the person's abilities, external resources and successes as well as his or her problems and disabilities and, as soon as possible, it should link clients with others who can provide the range of services most needed (medical services, housing assistance, parenting classes, employment training and so on).

Drug treatment programmes also need to look at the wider context of clients' lives with specific cognitive behavioural therapy interventions such as:

- goal setting, which gives therapy a direction and allows clients to measure their progress;
- motivational interviewing which encourages clients to consider the positive and negative aspects of their drug use and to overcome ambivalence to changing their behaviour;
- problem-solving, through verbal instruction, written information and skill rehearsal; and
- relapse prevention and management, to provide the skills and confidence for dealing with high-risk situations and difficult moods, thoughts, places, people and events.

Non-residential and residential treatment services should include individual and group therapy; stress management; social, occupational and assertiveness skills training; relapse prevention and management and harm reduction strategies.

Where possible, drug treatment methods should be tailored to meet the individual's particular needs and aspirations. The range of treatment options should include the following elements:

- **Brief interventions** (one to five sessions): These are appropriate for clients presenting at a general health clinic and who are unlikely to attend special treatment. At least health-care providers

should offer advice on how to reduce drug use to safer levels, and allow for discussion of other harm reduction strategies.

- ▶ **Opioid Substitution Therapy** (pharmacotherapy): OST with methadone or buprenorphine has proven to be the most effective form of drug dependence treatment for the majority of people with opioid dependence, and is particularly effective in reducing HIV transmission. In 2005, WHO added both methadone and buprenorphine to the essential list of medicines [32]. Evidence has shown that OST is most effective when provided at appropriate dosages and on a long-term maintenance basis in conjunction with other components such as counselling. With the advent of ART, OST has the additional benefit, when combined with HIV care, of improving adherence to ART. To date, the evidence for pharmacotherapies for other drugs such as amphetamine-type stimulants is limited.
- ▶ **Detoxification**: This can be done at home, as an outpatient or in a residential or hospital setting, with or without medication depending on severity of dependence and the client's preference. While worldwide detoxification is still the goal of most treatment options, the evidence for its effectiveness is weak when compared to OST, and relapse rate of patients following treatment is

extremely high. Where appropriate, detoxification should be closely linked to ongoing treatment services, and involvement of family members often increases the effectiveness of this tool.

- ▶ **Outpatient counselling**: Following the general approach outlined above, this is one of the least expensive treatment methods and allows treatment to be provided to a large group of drug users who continue to live and work in their communities.
- ▶ **Residential programmes**: These can help long-term drug users who have suffered significant harms as a result of drug dependence and those whose social networks support continued drug use. These programmes should provide a broad-range of support such as help in accessing medical care; employment, education and skills training; training in cooking, budgeting, parenting and other life skills; facilitation of entry into community groups outside networks of drug users and participation in activities of interest; and psychiatric care, legal services and a reintegration programme.
- ▶ **Self-help groups**: Clients may benefit from Narcotics Anonymous or Alcoholics Anonymous and similar groups if they have inadequate social support, or high levels of dependence and are willing to work towards abstinence. If so they should be encouraged to attend for at least three visits.

Women need tailored treatment for drug dependence

Women in drug treatment programmes may suffer more from feelings of shame and powerlessness, as society often stigmatizes women with drug and alcohol problems more severely than men with similar troubles. Depression, anxiety and somatic and personality disorders are particularly prevalent among women in drug treatment: these include poor self-esteem, high rates of attempted suicide and comorbid eating disorders. These women are also more vulnerable to sexual abuse and assault and domestic violence. Pregnant women and mothers who inject drugs, meanwhile, also have particular needs; so drug treatments must be tailored to suit them. Treatment providers should also consider offering family planning services to female patients. Managers should also remember that residential treatment programmes do not work well for female injecting drug users. Those engaged in sex work, and other forms of employment, are often the main bread winners for their partners and children.

E. HIV testing and counselling

Many NSPs offer services for HIV testing and counselling to injecting drug users. Testing for HIV must be voluntary rather than mandatory. Testing for HIV may assist drug users to become aware of their risks, to undertake risk reduction and safer sex and safer injecting measures and, if they are found to be HIV seropositive, to assist them in accessing appropriate health services, support groups, treatment and care

programmes, and adopt healthier life styles. In smaller projects, HIV testing is also undertaken to gather baseline data of incidence and prevalence and to understand risk factors for transmission in target populations.

The choice of testing strategy or diagnostic kit can be determined by referring to WHO guidelines [33,34]. Whichever option is adopted, HIV testing must be accompanied by pre- and post-test counselling that not only enables people to make an informed choice about whether they want to undergo testing, but

also provides referrals and support and interprets test results for those who are HIV positive.

There are many reasons why HIV testing can be useful in HIV prevention and care, however, encouragement of drug users to undergo HIV testing must be carefully considered in the context in which testing and subsequent possible treatment is to be provided. For example, where HIV treatment is not available to drug users or provided only unless or until they stop their drug use, positive HIV tests may result in seropositive people being registered or coerced to undergo drug treatment. It could also result in their serostatus being published or broadcast in mass media, or revealed to friends and family, and they may experience stigma and discrimination in health-care settings and elsewhere, or lose their jobs. Service providers must, therefore, be aware of these hard truths and ensure that people have the means to make an informed choice in pre-test counselling. This calls for a discussion of HIV transmission, risks, test procedures and implications of different results, as well as planning for safe sex or risk reduction and identifying available support.

There are several models for delivery of HIV testing and counselling services. For example, they can be stand-alone services offering anonymous testing and counselling or they can be integrated with harm reduction services. Counselling and testing can also be offered in fixed-sites and mobile NSPs.

In the event of a positive HIV test, counsellors not only need to discuss risk reduction strategies, but also address the person's immediate emotional and health care needs; whether, how and to whom results should be disclosed; planning for the future; accessing appropriate and timely health services; preventing and managing opportunistic infections and (where available) accessing antiretroviral treatment. Results of HIV-positive tests should be given in privacy and where there is back-up support available to help cope with the emotional consequences of the disclosure. These issues are doubly important when providing HIV testing and counselling to prisoners.

F. Treating sexually transmitted infections

Treating sexually transmitted infections (STIs)—other than HIV—is an essential component of any HIV intervention with injecting drug users, especially those who are also sex workers. Three main strategies for treating STIs among drug users, sex workers, clients and other high-risk populations are recommended: diagnosis and treatment of those who report symptoms

based on clinical, etiologic or syndromic grounds; regular screening of at-risk populations regardless of symptoms with clinical examination and where possible laboratory investigations; and presumptive treatment either on a one-time or periodic basis of all at-risk populations, regardless of symptoms. Several protocols for management of STIs are available [35].

Diagnosis and treatment of symptomatic at-risk populations on clinical, etiologic or syndromic basis is the most commonly applied clinical strategy for STI treatment. However, this approach is limited by the reliance on symptoms to identify individuals with infection whereas, most women and many men with STIs are asymptomatic. Moreover, many are not able to recognize their symptoms as those of STIs or often perceive them as normal and, thus, fail to seek treatment. It is important, therefore, to ensure that outreach and peer education components of an NSP focus on helping people identify the common symptoms of STIs, how to recognize them, and seek appropriate treatment.

Clinical approaches to STI treatment are limited because they are imprecise, and accurate etiologic diagnosis requires expensive laboratory tests that are often not available in settings with few resources. While syndromic management protocols for STI do address some problems of treating the symptomatic patient—for example, by offering immediate treatment or reducing loss to follow-up of individuals who may otherwise have to come back for test results—syndromic treatment can only be applied if patients have symptoms, recognize them and seek care.

Regular screening based on clinical examination along with high quality diagnostics coupled with condom promotion can be cost-effective among at-risk populations such as sex workers as they often have high rates of curable STI. However, these services are not often available in many low and middle income countries and for some infections there are also no screening tests available.

Presumptive treatment of all sex workers and drug users attending a health facility or in a particular area is another strategy that can be used to rapidly bring down a high STI prevalence in a short period. In this approach, no screening, clinical or etiological diagnosis is required prior to giving treatment. Various treatment regimens can be used for presumptive treatment [36], which can be provided in a single session or periodically (e.g. at 1-6 month intervals). Once the prevalence of STI is lowered, the need for presumptive treatment also diminishes and can be replaced by approaches that maintain low prevalence: syndromic management and primary prevention, for example.

What to do to control and treat sexually transmitted infections

When a sex worker or drug user approaches any health facility, the following steps need to be followed to control and treat STIs (regardless of which of the three above strategies are adopted). Staff should conduct a risk-assessment looking at the occurrence of unprotected sex and condom failures, for instance. They should then screen for STIs through blood and urine tests and cervical, urethral and/or anal swabs, where laboratory facilities allow for this) or follow a syndromic approach to make a diagnosis, where lab facilities are not available. They should provide appropriate antimicrobial agents for those with infections; offer detailed information on treatment compliance, the nature of the infection and ways of preventing infection; and they should demonstrate the correct use of condoms, emphasize the importance of consistent condom use and provide condoms. Staff should also, where appropriate, help individuals to develop skills to negotiate for the use of condoms. Finally, they should arrange for treatment of regular partners (whenever possible); and arrange for follow-up examinations and regular attendance at medical check-ups.

G. HIV care, treatment and support

In the past, much of the work of NSPs has focused on HIV prevention, but rising HIV-prevalence among clients in many locations has made HIV care and support programmes and, where feasible, antiretroviral treatment programmes critically important. Care and support programmes can include medical and nursing care; treating and preventing opportunistic infections, including tuberculosis; managing HIV-related illnesses and palliative care; antiretroviral therapy, where available; psychological support and community involvement [37].

For HIV-positive injecting drug users, a wide range of services may be needed. These include access to drug treatment (particularly opioid substitution therapy), education and advice about interactions between injected drugs, antiretroviral medicines and treatments for opportunistic infection (and substitution medications, in some cases); treatment for co-infection of HIV and hepatitis C; specialist psychological or psychiatric services; and social and legal services [38, 39].

Adherence rates of over 95% are required for antiretroviral therapy to suppress HIV and achieve the best outcomes. This stringent requirement has caused some to argue, incorrectly, that injecting drug users are poor candidates for antiretroviral therapy (ART). Studies indicate that the proportion of non-adherent individuals is similar among non-injecting individuals and injecting drug users who are in opiate substitution therapy and that rates of viral resistance to antiretroviral medicines are no higher in injecting drug users than in non-injecting drug users.

Harm reduction strategies are highly effective for injecting drug users in supporting prevention, treatment and care. Appropriate support, provided by

non-judgmental health-care workers and delivered through community-based programmes and outreach strategies, has proven effective. Comprehensive harm reduction programmes also reduce new HIV infections among injecting drug users. Consistent participation in methadone maintenance treatment has been shown to be associated with a higher probability of antiretroviral use, and among these, a more consistent use of or adherence to ART [39].

HIV-positive injecting drug users who are also sex workers may have specific needs. For example, HIV counsellors will need to discuss with sex workers the implications of being HIV-positive. These may include being out of a job, having their registration withheld or facing criminal charges for continuing to work. Discussions on self-care may also need to emphasize potential threats to their health arising from aspects of their work such as stress and greater risk of exposure to opportunistic infections.

Referrals to care and support groups and services that will treat sex workers and drug users fairly are also necessary. Where HIV-positive sex workers are unable to continue working or wish to leave sex work, they may need care and support to assist them in finding alternative sources of employment or income. HIV-positive sex workers and drug users may also face greater stigma and discrimination than others with HIV. For this reason, programmes need to engage in advocacy to deal with this discrimination. Services for HIV-positive, drug-injecting prisoners can usually be established where antiretroviral medicines and other treatments are available in prisons.

H. Social and legal support

Injecting drug users often need access to services for dealing with legal, housing and social welfare issues. While these services do not directly focus

on health, they contribute to the person's welfare, ability to control his or her life and thus, enable the individual to make healthier choices. Services can include referrals to experts (e.g. social welfare officers or lawyers) or information sessions (e.g. workshops on law) or skills training (e.g. finance and business management). Some of the social welfare issues that can be addressed include:

- ▶ Legal support for problems such as drug possession, use or dealing; prostitution, petty crimes, violence, child custody, immigration and property disputes
- ▶ Arrangements for housing and shelter, including safe emergency accommodation;
- ▶ Obtaining social benefits, health insurance and immigrant documentation;
- ▶ Availability of child care;
- ▶ Education services for clients or their children; and
- ▶ Services that address domestic violence and childhood sexual abuse.

range of topics, education and communication materials used to discuss sexual transmission of HIV and STIs, and negotiation of safer sex-work practices. A greater emphasis may also need to be placed on understanding the range of sexual practices and services being offered by those selling sex in the context of drug use.

I. Additional services for sex workers

Adding a sex-work initiative to NSPs may involve setting up a separate and parallel project in the same location where activities are targeting drug users. Alternately, it may involve expanding harm reduction efforts to include promotion of safe sex, condom programming, treatment of STIs and, where feasible, a range of other sexual and reproductive health services to those injectors who are also sex workers. In most contexts, sex work is more commonly practised by women than men; so, as a first step, most NSPs need to recruit and train female outreach and programme staff to attract and retain female clients to the service. Most NSPs are established by men and have mostly men as their initial clients and staff. By attracting female clients, the service will begin to discover the level of sex work carried out by this group and assess their needs for sex-worker services. Recruiting active or former female sex workers to the NSP's outreach or other staff can be a particularly effective way to attract female injectors and sex workers to the project.

NSPs also need to offer assistance to male injectors to deal with sexual risks that may arise from their involvement with sex workers (as casual or regular sexual partners) or their own sex work. Peer education and outreach efforts may have to expand the

IV. MANAGING FOR EXPANSION

As noted, needle and syringe programmes are of little benefit if they do not provide sufficient coverage to prevent or bring under control HIV and other diseases among local drug users. While pilot projects may be acceptable to demonstrate the practices of NSPs in places where there is significant opposition to harm reduction measures, a solid body of evidence shows that full-scale programmes, with a comprehensive range of services, are needed to provide significant public health benefits. After starting a programme, therefore managers need to create the conditions, internally and externally, to allow for rapid scaling up. This calls for a long-term investment in the training and careful management of staff as well as management of relationships with local authorities and the wider community. It also requires systems to assure the quality of services, measure coverage and monitor and evaluate to allow for sustained planning with government and other authorities.

A. Managing NSP staff

Good management is probably the most important factor in the performance of NSPs—and their ability to scale up. In particular, it may determine how well staff cope with the work and the length of time that they remain with the organization. Needle and syringe programme work can be difficult: volunteers or paid workers may be misunderstood and abused by members of the public, their families, police and drug users. If NSP workers are paid, they are usually not paid as well as many other people. These factors often contribute to a high rate of staff turnover in needle and syringe programmes. This can cause major problems as the departure of each staff member or volunteer forces the organization to find and train a new person and rebuild relationships with service users.

Needle and syringe programme work can be rewarding, however. Organizations can develop a strong sense of pride in what they do, their teamwork and mutual support. As in other agencies, staff are the most valuable asset of an NSP; so they need to be encouraged, supported, and treated with respect.

One of the most important factors in management is communication. Managers need to establish formal and informal mechanisms by which information is shared among themselves, other paid staff and volunteers. Team meetings should be held weekly if possible at a time and place where all team members can attend (even those working shifts or weekends). Meetings should have a clear agenda and be chaired or led in such a way as to ensure that all-important

information is covered and that the team does not become bogged down in irrelevant discussions. All staff should be encouraged to speak (one at a time) and to discuss any problems they have found in their work or any information they think the others should know: journals or log books should be used to jog memories. New ideas, services, agencies for referral and changes to the programme should also be discussed fully.

Each team meeting should ensure the following questions are answered.

- Did any problems arise during the week? If so, what suggestions can other staff make to solve these problems?
- Were any questions difficult or impossible to answer? (Add to training needs list)
- What new information has been learned about the behaviour of local drug users?
- How can services be improved?
- Is there a need to change any work practices?
- Have there been any changes in the environment in which NSP work is carried out?
- Do any workers wish to share any thoughts, comments, feelings from their personal journals?

These meetings can also be used for training. A staff member or guest speaker can share expertise on a particular subject by giving a short presentation and having a question-and-answer session.

Supervision should include regular individual sessions between the supervisor (usually the programme manager) and each member of staff. These meetings should be supportive and review the individual's performance and, if necessary, the need for improvement or further training. They should also look at the person's relationships with clients, feelings about their work and career plans.

Where staff have a current or past history of drug use, supervision may also include impact of the work on their drug use or abstinence; health issues and nutrition and basic medical condition. Owing to the nature of the work, and the variety of staff who may be supervised, supervisors may also need to address the impact of the work on the staff member's life and social relationships, financial status and housing problems.

Training should be provided on a continuing basis. No matter how busy the service gets, time should

be invested in this—and reflection on what might be needed to improve the programme further. This may be as simple as the measure, suggested above, of getting guest speakers to attend team meetings, but should also include staff attending conferences and courses, and visiting other services. Other, easy-to-implement, training activities include work placements for staff with other services and journal clubs in which members take it in turn to read, present and discuss articles, press cuttings or books.

B. Managing external relationships

It is also important to develop support among people who work or live around the NSP, as well as locally powerful and influential individuals and organizations, as there are examples in almost every country of NSPs that have been forced to move or close down because of opposition from one or more of these groups. Many programmes are started from within established health structures such as drug treatment centres, hospitals or clinics. This can have many advantages in terms of offering office and storage space, administrative support and communications (phones, fax, email) without great extra expense. However, many such NSPs have been forced to move to other premises, or to work within boundaries that make their work difficult, because of opposition from other workers in the building.

If an NSP is going to work from within an existing agency, it is vital that time is spent gaining support from the powerful groups and individuals that share this space. A similar approach is required when NSPs are established in other settings. Indeed, whether the NSP fixed site or base has residents, shopkeepers or health workers as neighbours, it is important to explain the programme's work to these groups and gain their trust and acceptance. One useful way of improving relationships with neighbours is to identify their concerns, such as needles and syringes being found on the streets. If it is possible to address ways of resolving these problems in the NSP's work—for instance, by organizing regular checks of local areas and collections of discarded needles—it can generate goodwill and local support.

Initial advocacy steps were described in section II of this guide, but it should be remembered that advoca-

cacy is an ongoing process and is one of the key features of those programmes that have reached high coverage in low and middle income countries. Substantial work has been done in defining the types of advocacy work that may be needed and the target groups for these advocacy activities [40]. It is recommended that an advocacy campaign be started early in the life of the NSP and that activities for this campaign be funded and carried out by paid staff, just like any other parts of NSP work.

Advocacy usually starts when a group of concerned people perceive an issue as so problematic that it should be put on the public agenda. Advocacy includes also the development of possible proposals to solve that problem and building support for acting on the solution. This dynamic process (see diagram below) consists of a set of steps, carried out for different aspects of an issue, at many levels of society simultaneously, in various order.

Starting up: Formation of an advocacy group or coalition. Specific funding for advocacy, which is usually needed, should be sought at this stage or at any of the next three steps.

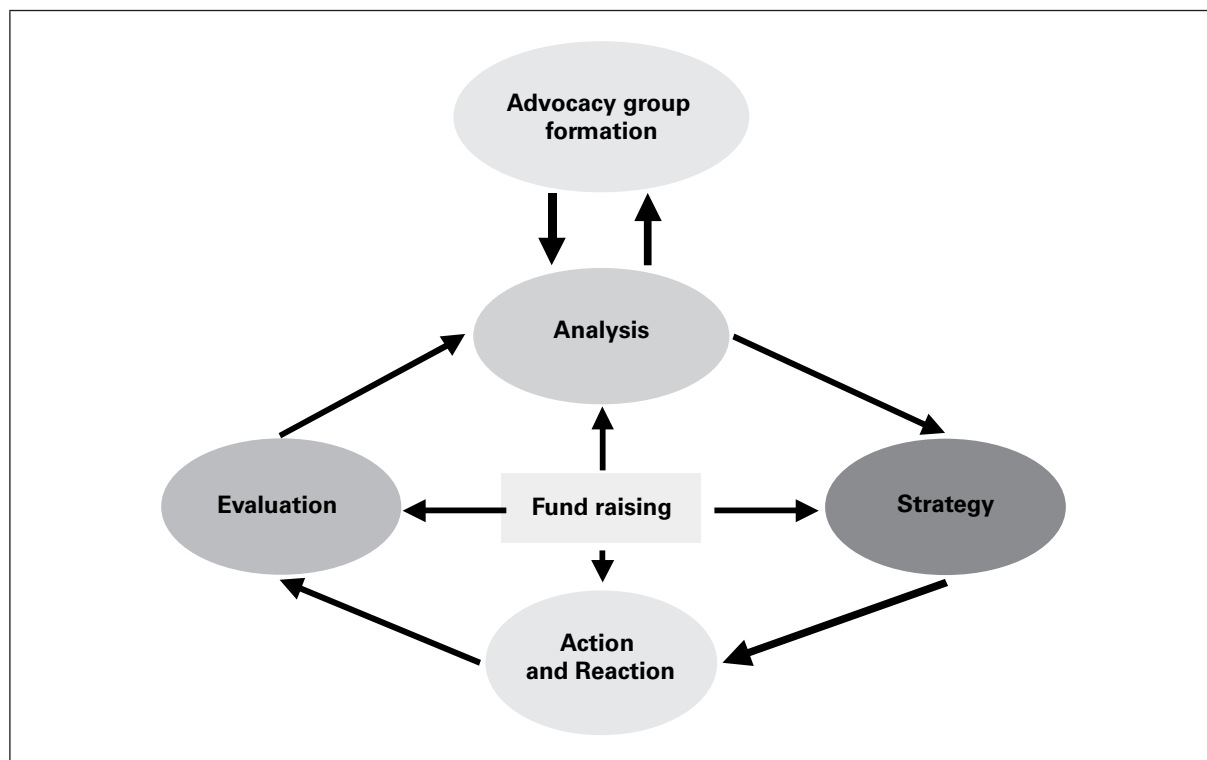
Analysis: The group analyses the identified problem more systematically, including key stakeholders, existing norms and policies, the organizations involved in putting those policies into practice, and the channels of access to influential people and decision-makers.

Strategy: This builds on the analysis to focus on specific objectives and goals and to position the advocacy effort with a clear path to achieve them.

Action and reaction: An advocacy action plan is formulated, and support is built for changes to policies and practices. Implementation of the campaign may prompt various reactions by influential groups. Addressing the reactions of critics helps to keep attention and concern on the advocacy issue.

Evaluation: A team needs to review regularly what has been accomplished and what more remains to be done. The concrete impact of advocacy may be difficult to evaluate in the short term, so one may need to measure the progress made in the process of advocacy.

The advocacy process



Harm reduction networks also provide a forum in which managers and staff can learn about advocacy, and push for changes in policies and laws that affect drug users' lives. There are several levels of harm reduction networks, and there are now networks specifically comprising NSPs. See section VI, "Useful web sites, publications and networks".

C. Monitoring for quality assurance

To ensure that an NSP is effective, continued monitoring is required to assess the quality of the services and products provided. Five processes are recommended to monitor the environment and services and act on the findings.

The first is the team meeting described above. Here NSP workers will identify problems with services or products provided, and changes in the behaviour of injectors that require improved or different services and commodities. This new information should be noted and addressed quickly by management. If this calls for changes in the programme, NSP workers should be encouraged to gauge the effectiveness of the changes and to suggest further ways of improving services. In this way, a feedback loop is formed,

in which constant monitoring leads to improvements and further monitoring and changes, as required.

Second, the advisory group described in Annex A can play a key role in quality monitoring, especially if this group is informed by the recommendations of injecting drug users brought together on a regular basis to appraise the NSP's services. When the group proposes changes, these should be discussed with NSP workers at the team meeting before being implemented and monitored in the above feedback loop.

Third, it is recommended that each agency contributing to the spectrum of services described in section III establish and publicize a clear, anonymous complaints procedure. Forms should be made readily available (for example, on the front counter of a fixed-site NSP) together with a box in which the forms can be placed anonymously. Complaints should generally be given to the NSP manager and should be investigated thoroughly. If needed, managers should follow agreed disciplinary procedures in dealing with NSP staff member shown to have contravened the rules or policies of the programme.

Fourth, if resources permit, a quality evaluation may be done of these and other aspects of the programme:

- ▶ Convenience of access to injecting equipment;
- ▶ Friendliness of staff;
- ▶ Involvement of injection drug users in NSP activities;
- ▶ Response of management and staff to complaints and to changes in behaviour and the environment;
- ▶ Range of injecting equipment and services provided at the NSP; and
- ▶ Referral processes used.

D. Measuring coverage

What is coverage?

Coverage of needle and syringe programmes is difficult to define. For years, the convention has been to define coverage as the percentage of injections “covered” by sterile needles and syringes. This is problematic and difficult to calculate, however. Another way to estimate coverage is to calculate the number of needles and syringes supplied by NSPs per injecting drug user per year (based on the estimated total number of injecting drug users in a geographic area). This method of estimation has been used by a number of western European and Australian programmes (it is referred to in this guide as “comparative coverage”). A similar figure for NSP clients—number of needles and syringes/ NSP client/ year—is slightly different and is referred to in this guide as “service utilization”.

Most people, however, think of people, not injections or needles, when they think of coverage. A common method is to calculate the number of injecting drug users ever reached by the programme. As a one-off NSP visit does not provide any significant behaviour change, this figure actually only indicates the reach of the programme (hence this guide refers to this as “ever reached” coverage). A more human-based definition of coverage is the percentage of injecting drug users in regular contact with NSPs (or other harm reduction and drug treatment services). Defining *regular* in this context is also tricky, but here it will mean “at least once a month over a period of 12 months” for NSPs (other measures of regularity are being developed for other interventions).

In this guide, coverage is defined as *the percentage of the estimated total of injecting drug users in a geographic area in regular contact (at least once a month) with NSPs.*

One of the key steps in expanding NSPs is knowing whether coverage is increasing or decreasing each year. To calculate coverage based on the above definition requires that two processes be carried out. The first is a population estimate (described in the RAR-IDU Guide): this should be done at least every two years. The estimate provided prior to opening an NSP may well be inaccurate as it is based often on inadequate sources. As NSPs are implemented and expand, staff gain a greater understanding of social networks and numbers of injecting drug users in their locality. This information, together with techniques such as “snowballing”—asking each drug user to introduce NSP staff to all of his or her injecting and drug purchasing partners—can result in estimates being revised upwards or downwards by significant amounts. Some NSPs are tempted to underestimate the number of drug injectors in their locality (to make the NSP’s reach and coverage figures look better than they are) or to overestimate the number (to argue for greater funding than needed).

Accuracy and regular checking of the estimated number of injecting drug users is necessary to ensure that services are provided at such a level that an HIV epidemic among injecting drug users is prevented or brought under control: inaccurate estimates lead to miscalculations of the resources needed which can result in epidemics occurring despite large-scale NSPs being implemented.

The second process is a regular report from the monitoring process described in section II. By using a unique identification code, NSPs can provide accurate figures of the number of injecting drug users accessing the programme. This monitoring does not, however, record people contacted by clients of the NSP, so-called secondary exchangers. The effectiveness of NSPs, however, in assisting drug injectors to move towards safer behaviours appears to be reliant on a combination of the education provided by NSP staff and volunteers, the distribution of sterile injecting equipment and the access to related

health and social services. Secondary exchangers are unlikely to be receiving all these benefits so it is sensible to gauge coverage based on the number of people who actually attend NSPs or who interact with its staff.

The coverage calculation is then carried out by dividing the estimated number of injecting drug users by the number of drug injectors who attend NSP services at least once per month (the latter figure can either be calculated by discovering how many clients attend at least 12 times during the last year). While no targets have been calculated and tested for this process, it is expected that reaching more than 60% of a locality's drug injectors on a regular basis as defined above will have an impact and should help prevent an HIV epidemic among injecting drug users or bring an existing epidemic under control. It should also be noted that NSPs are only part of a comprehensive response to addressing HIV/AIDS and drug use in any locality. The coverage of NSPs will need to be greater in localities where:

- ▶ HIV prevalence among injecting drug users is already high;
- ▶ Needles and syringes cannot be purchased elsewhere, for example from pharmacies;
- ▶ There are few drug treatment services: this is especially the case where there is no or little opioid substitution therapy available; and
- ▶ There are few effective programmes addressing prevention, STIs and other health problems among injecting drug users.

The other way that monitoring processes can assist scaling up of NSPs is through measuring *quality* of services and reacting to changes in the needs of target populations. Quality monitoring was described earlier in this section, but there have been few attempts to date to quantify these quality measures. For more guidance on setting targets for quality and coverage of services, please see reference [41].

E. Using monitoring and evaluation for advocacy and planning

Experience from many countries shows that NSPs need to advocate strongly for the support of political and community leaders to ensure that authorities address the need to prevent and control HIV among vulnerable populations such as drug users, sex workers and ethnic minorities. As well, it shows

that after leadership has been secured, NSPs must assist governments in careful local and national planning to ensure that appropriate services are provided on a sufficient scale.

After the initial assessment for a planned NSP, advocacy and pilot project phases, most localities need to enter a different process to bring HIV prevention programmes up to high coverage. This new phase relies on ongoing data collection—with monitoring and evaluation results from programmes added to regular analysis (or RAR) processes—together with strong advocacy and community education to create an enabling environment for scale-up. A comprehensive planning and monitoring feedback loop can facilitate higher coverage. In such a loop, an estimate is made annually of the coverage of key programmes such as NSPs, together with an analysis of the gaps in services both geographically and in terms of the quantity and breadth of services available to the target group. Planning is carried out based on these annual results, to expand all aspects of coverage each year. These planning activities should be collaborations among all groups working on HIV and drug use, including government and non-government services.

F. Checklist for scaling up harm reduction

The first section of this guide outlines key features of effective NSPs. These include careful initial assessments, community mobilization, comprehensive services that are easy to access and broad coverage. A UNAIDS Best Practice report on coverage of harm reduction programmes [42] gives further emphasis to many of these points, and notes a number of other factors that contribute to higher coverage:

- ▶ **Tailor programmes for local needs:** Rather than impose models developed for other countries or cities, programme planners and implementers should study principles of effective harm-reduction and design appropriate services for local populations of injecting drug users.
- ▶ **Build public support:** The support of the general public, and representatives of government, religious institutions and media matters. This support can be built through advocacy.
- ▶ **Do not allow police to block programme:** As drug use is a criminal activity in most countries, police can easily limit the coverage of harm-reduction agencies by preventing workers from making contact with drug users, dealers and

shooting gallery owners. While police may not support all aspects of harm-reduction, it is often possible to ensure that they do not hinder the daily activities of harm-reduction workers.

- ▶ **Seek flexible, sustained funding:** Many NSPs start with funding from donors, based outside their country. External funders need to be flexible, not just in assessing the amounts of funding required for each site, but also in determining the time periods over which funding is provided and the specific programme elements and methods of operation needed in each context.
- ▶ **Replicate:** Good programmes can be taken to scale, then replicated in other parts of a country. This can swiftly scale up coverage for injecting drug users nationally and regionally.
- ▶ **Be mindful of management:** Technical assistance and on-going training for managers and staff is crucial, as are effective supervision, problem-solving and regular team meetings.
- ▶ **Learn from experience:** A process of trial and error is needed to develop the specific mix of programme elements, staffing and other features that achieve high coverage.
- ▶ **Target the most vulnerable drug users:** Specific programmes may be needed to target female injecting drug users (especially those who are sex workers); street youth (including those who are not yet injecting); prisoners; and drug users from marginalized ethnic groups such as the Vietnamese in Australia, Roma in Eastern Europe and North Africans in France.

V. NEEDLE AND SYRINGE PROGRAMMES IN CLOSED SETTINGS

In many prisons, needle and syringe programmes are still controversial [43]. The three principal objections of critics are that implementation of NSPs in prisons leads to:

- ▶ Increased violence and the use of syringes as weapons against prisoners and staff;
- ▶ Higher consumption of drugs, and/or increased injection of drugs among those who were previously not injecting; and
- ▶ The undermining of abstinence-based messages and programmes.

WHO recently commissioned a comprehensive review of the evidence of effectiveness of interventions to address HIV in prisons, showing that these objections are groundless [44]. Some European prisons have almost 15 years of experience with NSPs and to date 11 countries have successfully implemented prison NSPs, including in Germany, Belarus, Kyrgyzstan, Republic of Moldova, Islamic Republic of Iran, Spain and Switzerland. The review concludes that needle and syringe programmes (NSPs) are feasible in a wide range of prison settings, including in men's and women's prisons, prisons of all security levels, and small and large prisons. Providing clean needles and syringes is readily accepted by IDUs in prisons and it contributes to a significant reduction of syringe sharing over time. It also appears to be effective in reducing HIV infections. At the same time, there is no evidence to suggest that prison-based NSPs have serious, unintended negative consequences. In particular, they do not appear to lead to increased drug use or injecting, nor are they used as weapons. Evaluations have found that NSPs in prisons

actually facilitate referral of drug users to drug dependence treatment programmes. Ultimately, since most prisoners leave prison at some point to return to their community, implementing NSPs in prisons will benefit not only prisoners and prison staff, but also society in general. Therefore, it is recommended that

- ▶ Prison authorities in countries experiencing or threatened by an epidemic of HIV infections among IDUs should introduce NSPs without delay and expand implementation to scale as soon as possible. The higher the prevalence of injecting drug use and associated risk behaviour is in prison, the more urgent it becomes to introduce prison-based NSPs.
- ▶ Prisoners should have easy, confidential access to NSPs, and prisoners and staff should receive information and education about the programmes and be involved in their design and implementation.
- ▶ Carefully evaluated pilot programmes of prison-based NSPs may be important in allowing the introduction of these programmes, but they should not delay the expansion of the programmes, particularly where there already is evidence of frequent injecting in prisons.

The provision of sterile needles has not meant condoning the use of illegal drugs in prisons. Possession of illicit drugs remains illegal, but possession of needles and syringes that are part of an official prison NSP is legal: this is similar to the situation outside prison in most countries.

Programmes succeed in all types of prisons

Critics also argue that NSPs succeed only in unusual closed settings—small, low-security prisons, for example—and, therefore, cannot be scaled up across prisons systems; but the evidence does not support these claims. It is true that the initial Swiss pilot projects were conducted in smaller prisons (Oberschöngrün has a population of 75, while Hindelbank has a population of 110), but subsequent programmes have been successfully implemented in a variety of settings in both civilian and military systems. In Germany, for example, NSPs have been introduced in prisons with as few as 50 inmates (the women's prison in Hannöversand) and as many as 500 (Am Hasenberge men's prison in Hamburg). In Moldova, syringe exchange programmes operate in medium and maximum-security men's prisons with populations of 1000 or more. Soto de Real prison in Madrid, where an NSP has been successfully introduced, has a population of about 1600 prisoners. NSPs have also been established in prisons with very different physical environments. Programmes have proven effective in western European prisons with rows of cells, each containing one or two prisoners. They have also thrived in prisons in Moldova where 70 or more prisoners share a single room. There is also evidence that prison NSPs can be effectively implemented in low- and middle income countries that operate with relatively little funding and infrastructural support (Moldova, Kyrgyzstan and Belarus are three examples), as well as in high-income countries with more resources (Switzerland, Germany and Spain, for instance).

Different countries (and different prisons within them) have adopted different methods to distribute (or exchange) needles and syringes. Distribution can be done by prison nurses or physicians based in a medical unit or other areas of the prison; by prisoners trained as peer outreach workers; by external nongovernmental organizations (NGOs) or other health professionals who come into the prison for this purpose; and by one-for-one automated syringe-dispensing machines. Each method has unique features, which make it more useful in some situations than in others.

Hand-to-hand distribution by prison nurse and/or physician allows for personal contact with prisoners and counselling. It can facilitate outreach to and contact with previously unknown drug users. Furthermore it gives prisons a high degree of control over access to syringes. Individual prison policies can therefore be enforced; for example, these might allow for one-for-one exchange or multiple syringe distribution. However, this approach has some drawbacks. It provides a lower degree of anonymity and confidentiality, which may reduce participation rates (although high acceptance by prisoners is possible if confidentiality is maintained). It limits access as syringes are available only during the established hours of the health service, (this is particularly true if the prison follows a strict one-for-one exchange policy). It also opens up the possibility of proxy exchanges by prisoners obtaining syringes on behalf of those who do not want to participate in person due to lack of trust with staff.

Hand-to-hand distribution by peer outreach workers enjoys high acceptance by prisoners, a high degree of anonymity and trust and provides for easy access, as peer outreach workers live in the prison, and are available at all hours. Staff, however, have no direct control over distribution, which can lead to fears among guards about their safety. This method also makes it difficult to ensure one-for-one exchange.

Hand-to-hand distribution by representatives of NGOs or health professionals, by contrast, provides for personal contact with prisoners and counselling. It also facilitates contact with previously unknown drug users and allows prison authorities to enforce internal policies of one-for-one exchange or multiple syringe distribution. Furthermore this approach provides a higher degree of anonymity and confidentiality, as there is no interaction with prison staff; however, these characteristics could be compromised by policies that require the external

agency to provide information on participation in the NSP to the prison. Another shortcoming is that this method limits access as needles and syringes are made available only during set hours or set times of the week. Prison staff may also distrust the external agencies delivering services and these agencies may encounter more barriers in dealing with the prison bureaucracy than would health-care providers who are part of the prison staff. As well, turnover in staff of non-governmental organizations may result in the interruption of these services and undermine trust among prisoners and prison staff.

Automated dispensing machines can be highly accessible, with machines at various places within an institution for use outside the hours of medical services. These offer a high degree of anonymity and are usually welcomed by prisoners. Machines, however, tend to allow for strict one-for-one exchange and they can be vandalized or rendered inoperable by technical problems—undermining the confidence of prisoners in NSPs. Moreover, some prisons lack areas that can be freely accessed by prisoners and are thus ill-suited for the use of dispensing machines. Finally, as the machines must be custom designed and individually constructed, it can be prohibitively expensive to provide enough for multiple prisons.

Whatever methods are chosen, one must ensure that prison NSPs provide adequate access to needles and syringes. This has been accomplished by the placement of multiple dispensing machines within a single institution, as in Switzerland's Hindelbank pilot project. When person-to-person methods of distribution have been chosen, such as in Spain's Bilbao pilot study, staff sought to identify areas of the prison that were both discreet *and* easily accessible to prisoners. In Moldova, the decision to use a peer-based structure allowed for 24-hour access, as the peer outreach workers lived in the prison units where they distributed needles.

Effective prison NSPs tend to be strongly supported by the prison administration and staff, promote confidentiality and trust, and are guided by evidence drawn from pilot projects. As well, they are usually implemented as part of a broader harm-reduction programme. If prisoners have limited access to the programme, are not provided the right type of syringes, or lack trust in the programme, benefits for staff will also be reduced, as some prisoners will continue to hide needles and syringes, thus increasing the risk of needlestick injuries for staff.

The extent to which easy access, confidentiality and trust are important has been best demonstrated in Moldova, where only a small number of prisoners accessed the NSP when it was located within the health care section of the prison. It was only when prisoners could obtain injecting equipment from fellow prisoners who were trained to provide harm reduction services, that the number of equipment distributed increased significantly. This suggests that in many prisons, distribution by prison nurses or physicians or even by non-governmental organizations or health professionals who come to the prison for this purpose will not be the best option, as many prisoners would not access the programme. In these prisons, distribution through peers has led to much greater access, without any unintended negative consequences.

Recruiting and training people to work with prison NSP presents specific challenges. Depending on the chosen method of distribution, recruiting may be done among nurses and doctors on the prison staff, prisoners themselves, non-governmental organizations or medical staff in the public health-care system. Training will vary according to the distribution method and this can be supported by a range of materials covering many of the tasks included in prisons NSP. See, for example, materials developed by Trimboos Institute in the Netherlands [45].

To promote leadership in the prison administration and support among prison guards, NSP managers need to advocate for their programmes in meetings at every level (from the Ministry of Justice or Interior down to groups of prison guards) and back this up with educational workshops and consultations. In many effective prison NSPs, staff members grew to support the programme over time. The initial reluctance of staff makes the need for committed, informed, inclusive leaders supporting the implementation of prison NSPs all the more important.

Absolute confidentiality of prisoners' personal information may be impossible; however prison NSPs

must do everything possible to guard the confidentiality of prisoners who use drugs and access sterile needles. Successful programmes have all chosen distribution methods that have gained the trust of prisoners and thereby maximized participation. In some prisons, syringe-dispensing machines located in areas where prisoners are housed have proved the best mechanism for confidential needle distribution. In those institutions where a person-to-person method of exchange is in place, using a relatively private area to conduct the service has contributed to the success of the programme.

Prison NSPs and other harm reduction measures appear to be mutually reinforcing, so they should be introduced together. Other harm reduction measures include education about HIV and hepatitis C, and testing and counselling for these infectious diseases. Also prisoners should have easy access to opioid substitution therapy or other drug dependence treatment, to condoms, bleach and other disinfectants, antiseptic wipes and razors for shaving. Many countries have also provided for abstinence-based drug treatment in prisons with success.

Evaluations of prison needle-exchange foster international scale-up

Well-evaluated pilot projects have helped to scale up prison NSPs. In some countries a single pilot has been used; in others, such as Germany, two pilots have been run in parallel. The outcomes of the pilot evaluations have then been used to guide planning. In Switzerland, Germany and Spain, prisons selected for the initial pilot studies were relatively small, open or half-open institutions with lower security levels. After testing and evaluation demonstrated the value of NSPs in these environments, programmes were introduced in larger, closed, high-security prisons. Rigorous scientific evaluations of pilot NSPs (and expanded programmes) in prisons are not only of national interest—they provide evidence to encourage other jurisdictions to implement prison programmes where they are needed.

Monitoring and evaluation is an important component of any programme. While pilot projects of prison-based NSPs may be important in allowing the introduction of these programmes and to overcome objections against such programmes, they should not delay the expansion of the programmes, particularly where there already is evidence of high levels of

injecting in prisons.

Additional research about prison-based NSPs should be undertaken to address remaining knowledge gaps. For example, more research in resource-poor systems outside Western Europe could allow for more rapid expansion of NSPs in these systems.

VI. USEFUL WEB SITES, PUBLICATIONS AND NETWORKS

A. WHO web site and publications

At the WHO HIV/AIDS web site (<http://www.who.int/hiv/idu/en/index.html>), you will find a number of the following publications. Others may be found using the search function at the WHO web site.

Advocacy Guide: HIV/AIDS Prevention among Injecting Drug Users. Geneva/Vienna, UNAIDS/UNODC/WHO, 2004.

Effectiveness of Sterile Needle and Syringe Programming in Reducing HIV/AIDS among Injecting Drug Users. Geneva, WHO, 2005 (Evidence for action on HIV/AIDS and injecting drug use technical papers policy briefings).

Effectiveness of Community-Based Outreach in Preventing HIV/AIDS among Injecting Drug Users. Geneva, WHO, 2004 (Evidence for action on HIV/AIDS and injecting drug use technical papers policy briefings).

Effectiveness of Drug Dependence Treatment in Preventing HIV among Injecting Drug Users. Geneva, WHO, 2005 (Evidence for action on HIV/AIDS and injecting drug use technical papers policy briefings).

Effectiveness of Interventions to Address HIV in Prisons – Needle and syringe programmes and bleach and decontamination strategies, WHO, UNODC, UNAIDS, 2007. (Evidence for action on HIV/AIDS and injecting drug use technical papers policy briefings).

Evidence for Action: A critical tool for guiding policies and programmes for HIV prevention, treatment and care among injecting drug users. *International Journal of Drug Policy*: 16S 2005, including Wodak A and Cooney A, Effectiveness of sterile needle and syringe programmes (S31-S44).

Guidance on Target Setting for Universal access to HIV prevention, treatment and care for IDUs. (<http://www.who.int/hiv/idu/en/index.html>) Geneva, WHO, UNODC, UNAIDS, 2007.

Guidelines for the management of sexually transmitted infections, Geneva, WHO, 2003.

Guidelines for the management of sexually transmitted infections in female sex workers. Manila, WHO (Regional Office for the Western Pacific), 2002.

Ottawa Charter on Health Promotion. Geneva, WHO, 1986.

Policy and programming guide for HIV/AIDS prevention and care among injecting drug users. Geneva, WHO, 2005.

Provision of Sterile Injecting Equipment to Reduce HIV Transmission. Geneva, WHO, 2004 (Evidence for action policy brief)

Rapid Assessment and Response Guide on Injecting Drug Use (IDU-RAR). Geneva, WHO/UNAIDS, 1998 (Also in Portuguese, Spanish and Russian).

Rapid HIV Tests: Guidelines for use in HIV testing and counselling services in resource constrained settings. Geneva, WHO, 2004.

Reduction of HIV transmission in prisons. Geneva, WHO, 2004 (Evidence for action briefings).

Status Paper on Prisons, Drugs and Harm Reduction. Copenhagen, WHO (Regional Office for Europe), 2005.

Training Manual for HIV Prevention Outreach to Injecting Drug Users. Geneva, WHO, 2004.

B. Other web sites and publications

ANEX Bulletin, Volume 3, Edition 2. Fitzroy North, Australia (www.anex.org.au) (Includes several articles about syringe-vending machines in Australia).

Ball A and Crofts N. HIV risk reduction in injecting drug users. In: Lamprey PR and Gayle H, eds. *HIV/AIDS Prevention and Care in Resource-Constrained Settings.* Arlington, Virginia, Family Health International, 2002 (www.fhi.org/en/HIVAIDS/pub/guide/HIVAIDSPreventionCare.htm).

Ball A. Policies and interventions to stem HIV-1 epidemics associated with injecting drug use. In GV Stimson, DC Des Jarlais and A Ball, eds. *Drug Injecting and HIV Infection: Global Dimensions and Local Responses,* London, UCL Press, 1998.

Ball A. HIV, injecting drug use and harm reduction: a public health response. *Int J of Addiction* 2007, 102: 684-699

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Canadian HIV/AIDS Legal Network web site. Toronto, 2006 (<http://www.aidslaw.ca/EN/publications/index.htm>) (Wide range of publications in French as well as English on HIV/AIDS and injecting drug users, stigma and discrimination, criminal law, prisons, commercial sex work, gays and lesbians, occupational issues for health workers).

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VII. ANNEX A: PROGRAMME PLAN

After an assessment, the first three-month plan for a fixed-site NSP with an outreach team may look like this:

Task	By when (month)	Resources needed	Who is responsible
Gain any needed authority/ permission	1	Travel costs; costs of incorporation (authority to sign leases, etc.)	Director
Assemble advisory group (AG)	1	Funds for meal, incentives; safe space to meet	Director
Rent premises	1	Funds for rent; incorporation (authority to sign lease); incentives for AG members	Director, AG members
Determine stock and staff needs	1	None	Director
Hire key staff	2	Funds for advertising; payments/ incentives for AG members	Director, AG members
Develop initial monitoring system & order stock	2	Funds for purchasing goods; store room	Director, AG members, key staff
Initial training for key staff	2	Staff payments; payments/ incentives for AG members	Director, AG members
Carry out initial advocacy	2	Staff payments; travel costs	Director, key staff
Determine initial policies	3	Staff payments; payments/ incentives for AG members	Director, AG members, key staff
Determine outreach routes	3	Staff payments; payments/ incentives for AG members	Key staff, AG members
Recruit full complement of staff/ volunteers	3	Funds for advertising; staff payments; payments/ incentives for AG members	Key staff, AG members

ANNEX B: STOCK MANAGEMENT FORM

HAWKESBURY - N.S.P. STOCK ORDER

Date:

ITEM	Quantity	Amount In Stock (adjust where relevant)	ORDER
<i>Cupboard (behind Reception area)</i>			
<i>Equipment kept on hand to replenish stock behind the counter</i>			
<i>Fitpacks</i>			
5 pack	100	100	
25 pack	25	25	
<i>1ml Needle & Syringe x box/100</i>			
	4	4	
<i>Needle Tips</i>			
19g x box/100	3	3	
21g x box/100	2	2	
23g x box/100	3	3	
25g3/4 x box/100	5	5	
25g1 x box/100	1	1	
26g1/2 x box/100	3	3	
27g1/2 x box/100	3	3	
30g x box/100	3	3	
<i>Syringes</i>			
3ml x box/100	3	3	
5ml x box/100	3	3	
Water x box/50	4	4	
Swabs x box/100	10	10	
Condoms x box/144	1	1	
1.4litre sharps bins	8	8	
Plastic Bags (approximate)	100	200	
Brown Paper Bags (small) (approx.)	100	100	
<i>Reception (stock kept behind counter)</i>		FOR OFFICE USE ONLY	
<i>Fitpacks</i>			
5 pack	?	?	
25 pack	?	?	
<i>Needle Tips</i>			
19g x box/100	3	3	
23g x box/100	3	3	
25g3/4 x box/100	3	3	
26g1/2 x box/100	3	3	
27g1/2 x box/100	3	3	
30g x box/100	3	3	
<i>Syringes</i>			
3ml x box/100	1	1	
5ml x box/100	1	1	
Water x box/50	1	1	
Swabs x box/100	4	4	
Condoms x box/144	1	2	
1.4litre sharps bins	0	0	
Plastic Bags x bundle/50	?	?	
Brown Paper Bags (small)	?	?	

If stock required - fax order to South Court Primary Care Centre (NSP)

**DRUG TREATMENT & HEALTH PROTECTION SERVICES
NEEDLE & SYRINGE PROGRAM - CONSUMABLES ORDER FORM**



Contact Name		Date	
Agency Name			
Agency Address			
Suburb		P/Code	
Delivery Hours		Phone	

ORDERS MUST BE RECEIVED BY 4PM ON MONDAY OR BY 4PM ON FRIDAY IF MONDAY IS A PUBLIC HOLIDAY.

FAX ORDER TO DRUG TREATMENT & HEALTH PROTECTION SERVICES.

Needles & Syringes	Qty per Carton	Qty		
1.0ml x 27g x 13mm	5 Boxes of 100 (500)	10		
1.0ml x 29g x 13mm	5 Boxes of 100 (500)			
3.0ml x 25g x 5/8"	1 Box of 100 (100)		18 Boxes of 100 (1,800)	
5.0ml x 23g x 1.25"	1 Box of 100 (100)	1	12 Boxes of 100 (1,200)	
Syringes Only	Qty per Box	Qty	Qty per Carton	Qty
3.0ml	1 Box of 100 (100)	4	18 Boxes of 100 (1,800)	
5.0ml	1 Box of 100 (100)		12 Boxes of 100 (1,200)	
10.0ml	1 Box of 100 (100)		12 Boxes of 100 (1,200)	
Needles Only	Qty per Box	Qty	Qty per Carton	Qty
27g x 13mm	1 Box of 100 (100)	1	30 Boxes of 100 (3,000)	
25g x 5/8"	1 Box of 100 (100)		30 Boxes of 100 (3,000)	
25g x 1"	1 Box of 100 (100)		30 Boxes of 100 (3,000)	
23g x 1.25"	1 Box of 100 (100)	5	30 Boxes of 100 (3,000)	
21g x 1.25"	1 Box of 100 (100)		30 Boxes of 100 (3,000)	
19g x 1.5"	1 Box of 100 (100)		30 Boxes of 100 (3,000)	
Pre-Pack Needle Kits	Qty per Carton	Qty		
2 Needle kits	1 box of 150 packs			
5 Needle kits	1 box of 150 packs			
10 Needle kits	1 box of 100 packs			

Miscellaneous Items	Qty per Box	Qty	Miscellaneous Items	Qty per Carton	Qty
Condoms	1 box of 144	1	Paper Bags (small)	1 box of 500	
Swabs	50x200 (10,000)	1	Plastic Bags (large)	1 box of 100	
Lubricant	1 Box of 1,000				

Sharps Containers	Qty per Carton	Qty
125 ml Bottles	1 box of 140	
250 ml Bottles	1 box of 190	
950 ml Bottles	1 box of 45	
1.4 litre Containers	1 box of 36	
1.8 litre Containers	1 box of 30	2
20 litre pails	1 each (1)	

NSP Resources	Qty per Carton	Qty
"Do You Know" Inserts	1 box of 100	
NSP Cards	1 box of 100	

3.0ml Luer Lock Syringes – 1 Box of 100



March 2006

ANNEX C: SAFE HANDLING AND DISPOSAL RECOMMENDATIONS

Disposing of needles and syringes (sharps) and sharps containers:

- ▶ Sharps must be disposed of in a rigid container capable of withstanding the weight of the biomedical waste without tearing, cracking or breaking.
- ▶ When clients exchange needles, where possible provide sharps containers.
- ▶ When sharps containers are not available, encourage clients to place used equipment in a rigid, plastic container with a tight fitting lid, such as a bleach bottle.
- ▶ Encourage clients to return all sharps containers when two-thirds full to the NSP.
- ▶ When possible, pick-up sharps containers from clients' homes or locations where they inject and store used equipment.

Handling sharps: recommendations for NSP clients

- ▶ Locate the sharps containers close to the area of use.
- ▶ Dispose of equipment immediately.
- ▶ Never recap a needle.
- ▶ When exchanging needles for other people, ask them to recap their own needles or place a cork on the point of the needle.
- ▶ Do not bend or break a needle.

Handling sharps: recommendations for NSP workers

- ▶ Be mindful that clients exchanging needles may be carrying concealed needles.
- ▶ Do not touch returned needles.
- ▶ Clients must dispose of their own needles.
- ▶ If an estimate of the number of needles returned is required, this can be done by looking (but not touching).
- ▶ When performing immunization or testing: Locate the sharps containers close to the area of use.
- ▶ Dispose of the needle immediately.

When collecting discarded needles in the community:

- ▶ Wear puncture proof gloves.
- ▶ Carry a sharps container for immediate disposal.

After collecting used injecting equipment:

- ▶ Keep used equipment at a central location (eg. fixed site of NSP).
- ▶ Ensure secure storage of used equipment until it can be disposed of safely.
- ▶ If possible, use a high-temperature waste incinerator to destroy used injecting equipment. Many hospitals have such incinerators.
- ▶ Where high-temperature incineration is impossible, use the safest means of destroying equipment locally available: an industrial furnace, a small purpose-built incinerator, or (as a last resort) burial, for example.

The material in this table is drawn from Strike C, et al. *Needle exchange programs: Best practice recommendations* [46].

ANNEX D: EXAMPLES OF JOB DESCRIPTIONS

The manager's job description will probably include these tasks, as well as others listed for workers:

- ▶ Day-to-day management of employees' and volunteers' workloads;
- ▶ Staff and volunteer recruitment and training;
- ▶ Monitoring all aspects of service quality;
- ▶ Management of project funding;
- ▶ Facilitating project development to achieve targets and goals;
- ▶ Collecting relevant literature;
- ▶ Personal support of workers; facilitation of team meetings and team-building; and
- ▶ Representing the NSP at other meetings.

NSP workers may have the following duties:

- ▶ Make contact with injecting drug users and supply them with sterile injecting equipment and associated items, safe disposal containers, condoms and educational pamphlets, etc.;
- ▶ Collect from clients and elsewhere used injecting equipment, and safely dispose of this;
- ▶ Provide information and education to clients on safer drug-use and injecting, the transmission of infection through sexual and drug use behaviour, and how to minimize the risk of infection;
- ▶ At the client's request, provide referrals to other health, welfare and community agencies
- ▶ Help to plan and implement publicity, promotional and community education activities;
- ▶ Assist in the collection and collation of statistics, preparation of evaluation reports, correspondence and other administrative tasks;
- ▶ Devise, implement and research strategies to maximize the effectiveness of the programme;
- ▶ Attend meetings, training courses and other activities, as directed;
- ▶ Train and supervise staff in secondary needle and syringe programmes;
- ▶ Liaise with police, government departments and community groups; and
- ▶ Assist in ordering goods, maintaining levels of stock and/or managing the NSP budget.

Recruiting NSP workers includes:

- ▶ Developing selection criteria so that appropriate people are recruited;
- ▶ Identifying potential candidates and informing them about the available jobs;
- ▶ Using a fair, transparent selection process to ensure that candidates are suitable for the jobs;
- ▶ Developing a contract or work agreement based on a job description so that the NSP worker knows what he or she is hired to do, the remuneration and other job conditions; and
- ▶ Initial training to carry out NSP tasks.

ANNEX F: NEEDLE-STICK INJURY

POST-EXPOSURE GUIDELINES

This information is drawn from Strike C, et al. *Needle exchange programs: Best practice recommendations* [47].

First aid

- ▶ Allow the wound to bleed freely;
- ▶ Cleanse the wound thoroughly with soap and water;
- ▶ If injury or blood contact is with mucous membranes (i.e., eyes, nose, mouth) flush well with water;
- ▶ Apply a sterile, waterproof bandage.

Medical attention and post-exposure prophylaxis

Seek immediate medical attention (within hours) from an emergency department, clinic or doctor's office. The needle-stick injury will be assessed there. Confidential HIV, hepatitis B and hepatitis C testing may be recommended. Post-exposure prophylaxis (e.g., immunoglobulin or antiviral therapy for hepatitis B and HIV) may be recommended. Many hospitals have policies and procedures in place for needle-stick injury exposures, however there are regional variations. Delay or failure to seek medical attention may compromise the effectiveness of post-exposure treatment.

Follow-up counselling and evaluation

Periodic testing for hepatitis C antibodies, liver enzyme levels and HIV antibodies are recommended. Counselling for emotional stress related to the injury and possibility of infection is recommended. Counselling for prevention of transmission, such as through sexual contact or blood or organ donation is also recommended.

Documentation and surveillance

Report any needle-stick injury to the NSP manager. Document all injuries in a sharps injury log. A sharps injury log includes information such as the date of the injury; the equipment involved; a description of the injury; and an explanation of how the incident occurred. This information can be used to help NSPs develop further strategies to prevent needle-stick injuries.

ANNEX G: STAGES OF BEHAVIOUR CHANGE AND HOW TO HELP AT EACH STAGE

In the **Pre-Contemplation stage**, people are not interested in changing their behaviour. Some are not interested in changing because they experience either no or few adverse consequences. Others continue a behaviour even when the related problems are obvious. Reasons for this may include:

- ▶ People may not care about the problems;
- ▶ People might believe that there are no alternatives and that change is impossible; and
- ▶ People might pretend everything is fine even when they know it is not.

Education in the Pre-Contemplation stage focuses on engaging the client in open and honest communication. Even if the client does not want to change, the NSP Worker can:

- ▶ find out crucial information (what drugs are being used, how, where, when and with whom);
- ▶ assess the person's risk behaviour for HIV transmission and how attached they are to this;
- ▶ work with the person to prevent the harms associated with drug use;
- ▶ raise awareness of factors that may make the person think about changing behaviour; and
- ▶ make sure the client knows that the NSP Worker is available to help them in the future if they would like to make changes.

Helping a person solve other related problems, such as a lack of housing, builds trust in the NSP worker and can start laying the foundations for change.

People in the **Contemplation stage** have become ambivalent as they are still attached to their old behaviours, but are aware of the negative consequences of their risk-taking. Ambivalence can be uncomfortable for clients as they feel at war with themselves. It may take time for them to decide to change their behaviour. Reasons why clients may not feel ready to behave differently can include:

- ▶ the client might not believe that change is possible;
- ▶ the person might not realize the extent of the problems associated with their behaviour because of a lack of experience and little knowledge of consequences; and

- ▶ people in disadvantaged circumstances may become desensitized to problems.

When working with people in the Contemplation stage, NSP workers should:

- ▶ talk and listen to them to try to understand their situation;
- ▶ build trust and establish communication that is open and honest;
- ▶ acknowledge that change is their choice, as people need the chance to weigh up the pros and cons of change before deciding;
- ▶ explore their drug-related problems and suggest possible solutions;
- ▶ offer ongoing support as people can take time to make a decision; and
- ▶ help them to believe that change is possible.

Clients in the next stage are **Ready for change**: they have made a decision to change as the problems stemming from their old behaviour outweigh any benefits. They have yet to begin, however, acting on this decision and may continue in the old behaviour. At times, clients decide they want to begin the new behaviour but either do not know how to proceed or do not believe it is possible.

When working with clients who are ready for change, NSP workers should:

- ▶ find out what these people want to change and explore their reasons;
- ▶ help them set their own goals for the new behaviour;
- ▶ discuss with them a range of potential options for first steps towards the new behaviour;
- ▶ break down the upcoming journey into achievable steps;
- ▶ encourage the person to identify their support needs and offer assistance if possible;
- ▶ offer examples of other people who have successfully changed their behaviour;
- ▶ emphasize their strengths and identify skills they may need to develop to achieve their goals; and
- ▶ talk with them about what they are likely to lose by changing.

At the **Action stage**, the client has begun a new behaviour. NSP workers should assist this action by:

- ▶ emphasize that small achievable steps can lead them to their defined goal;
- ▶ encouraging clients to reward themselves when they achieve a goal and celebrate their successes;
- ▶ assisting them to reorient goals
- ▶ as information comes to light during attempts to change behaviour;
- ▶ giving encouragement to people while being realistic about the challenges ahead; and
- ▶ assisting them to identify and implement relapse prevention strategies.

After a new behaviour is instituted, people either maintain it or relapse into the previous behaviour. To assist clients in *maintaining safer behaviours*, NSP workers should:

- ▶ assist them in implementing Relapse Prevention strategies such as identification and management of high-risk situations;
- ▶ help them to stay optimistic;
- ▶ assist in continual review of progress and goals; and
- ▶ prepare them for the possibility of lapses, as they may need reassurance that they can talk with the NSP worker about any difficulties or about a return to the previous behaviour.

Relapse prevention steps include avoiding or leaving a difficult situation;

- ▶ delaying the decision to use drugs if this will assist safer behaviour;
- ▶ talking to someone who understands the desire to return to the previous behaviour;
- ▶ challenging and changing thoughts; keeping a diary; providing rewards for maintaining safer behaviour; and remembering that there are always choices. If clients relapse, NSP workers should help them believe that change is still possible;
- ▶ remind them know that relapse is common;
- ▶ let clients know that other people who have relapsed have been able to move back into the new behaviour and achieve their goals; and
- ▶ assist them so that learn from their experience of relapse.

ANNEX H: EDUCATION METHODS

Like advertising slogans, the frequent repetition of a short message helps to fix an idea in a person's mind. At Chicago Recovery Alliance in the U.S., staff are encouraged to develop "one-liners" to say to clients. Here are some examples:

- ▶ "One shot, one sterile syringe";
- ▶ "Use your own: needles, cookers, filter, water";
- ▶ "The cleaner everything is, the better";
- ▶ "New paraphernalia + clean hands = safer shots";
- ▶ "Different spots, no tracks"(visible puncture marks are reduced if you inject at different sites);
- ▶ "Shoot with the flow" (of blood);
- ▶ "Release the tie (tourniquet), before you get high;" and
- ▶ "Knowing your condom is safer than knowing your partner."

Such sayings represent a first step in developing a rapport with service users so that they trust the information given by NSP staff about safer injecting. Seldom can in-depth information be given "cold" to a user—one-to-one education usually involves establishing trust.

The annual "Tribes" campaign of the New South Wales Users and AIDS Association in Sydney (Australia) gains the trust of specific groups of drug users through a comprehensive system for targeted education. The campaign is based on the theory that our societies are so fragmented that each drug user may be considered a member of a complex group of "tribes". By aiming a campaign at a "tribe", it is possible to reach users who do not receive education by other means. Members of a "tribe" share similar preferences in their choice of drugs, recreation, hair-styles and clothes. They also tend to have their own slang and to live in the same area. The organization invites drug users or people with good contacts with groups of drug users to write proposals for grants, which are used to provide HIV education and injecting equipment to a specific group of drug users. Examples of the groups targeted and the materials used include:

- ▶ Video, cards and leaflets for gay men in inner-city Sydney who go to gay rave parties;
- ▶ A motorcycle painted with images and slogans about safer sex exhibited at shows where "out-law" motorcyclists are likely to attend;

- ▶ A set of paintings using traditional materials and methods for addressing HIV and drug use in a specific Aboriginal group;
- ▶ Murals painted in toilets of drinking places where particular types of rock bands play.

ANNEX I: EDUCATION MESSAGES

ABOUT SAFE INJECTING

When drug users inject, they are often unable to carry out all of the steps below as they may lack the equipment, time or knowledge, but NSP clients should know that this is the correct procedure.

Good injecting technique

Prepare for the injection by obtaining new injecting equipment: needle and syringe, alcohol swab, filter, spoon and tourniquet. Any other equipment should be owned by the drug user and never shared.

Clean hands (with soap if possible).

Use a filter.

Swab injecting site.

Rotate injection sites to avoid vein damage. This causes less bruising and allows damage to heal. Bruised sites can lead to infection. Rotation of sites also reduces scarring of vein walls, which can make future injections more difficult and damaging.

Avoid damaged, especially infected, sites.

Jack back: push the plunger partly down, pull it back letting blood enter the syringe, push all the way down to inject into the vein. This can warn you that you have injected into an artery instead of a vein, as arteries are deep and arterial blood is bright and frothy (whereas venous blood is dark). Arterial blood is also under high pressure and difficult to inject into.

If you suspect an artery has been hit, immediately pull the needle out; apply pressure for 5-10 minutes; raise the limb; if bleeding does not stop, seek urgent medical treatment.

Inject slowly. This reduces the risk of overdose and death and causes less wear and tear on veins. It also helps to ensure that the drug is going into a vein.

Always inject in the direction of the blood flow, towards the heart.

Apply pressure after injecting for at least 1-2 minutes and don't use an alcohol swab when applying pressure, as this may interfere with clotting.

Core education messages

You can protect against infection by always using your equipment and never sharing or lending it:

- New, sterile needles and syringes;
- Mixing water;
- Spoons or cookers (used to heat powdered drug and mix it with water);
- Filters;
- Swabs/alcohol wipes; and
- Tourniquet

Sharing isn't just using a needle and syringe that someone else has used. It is also using a filter, mixing water, water cup/container, cooker, spoon, tourniquet or swab that someone else has used, or passing them on to someone else.

ANNEX J: INSTRUCTIONS FOR CLEANING INJECTING EQUIPMENT

Needle and syringe cleaning:

The “2 by 2 by 2” method

Injectors should be advised that all syringes that they think may be re-used should be cleaned immediately after first use. They should then be cleaned again before second use.

The best method for cleaning is the “2 by 2 by 2” method:

- ▶ Draw *cold* water (sterile or cool boiled is best) into the syringe and then flush it out down the sink or into a different cup. Do this twice.
- ▶ Then slowly draw bleach into the syringe and shake it for 3–5 minutes if possible (or at very least 30 seconds). Flush it out down the sink or into a different cup. Do this twice.
- ▶ Then repeat the first step: draw *cold* water into the syringe and then flush it out down the sink or into a different cup. Do this twice as well.

Other cleaning methods

In addition, you can reduce the chance of infection if you clean the needle and syringe by soaking the parts in either undiluted bleach or a strong detergent/water solution for as long as possible (at least several minutes) and rinsing thoroughly with water.

Injectors can also be advised that boiling needles and syringes for 15-20 minutes will also sterilize them (although boiling plastic syringes may lead to distortions of the plastic and leakage).

If they are not going to go through the full “2 by 2 by 2” procedure they should be advised to do anything they can to reduce the residue of blood in the syringe.

In particular, washing the needle and syringe repeatedly (for example, 10 times) immediately after use with cold water—before the blood and drug solution have had a chance to dry—is likely to flush out most infectious agents.

Failing this, using water or even vodka, wine or beer to flush out the syringe and needle before reuse is likely to reduce the risk a little.

ANNEX K: OVERDOSE PREVENTION EDUCATION MESSAGES

This information is drawn from Strike C, et al. *Needle exchange programs: Best practice recommendations* [47].

Rationale	Recommendations
Drugs with similar effects when combined can increase the risk of overdose	Avoid mixing drugs with similar effects
Lowered tolerance can increase the risk of overdose	<p>When tolerance is low (e.g., after drug treatment or release from jail):</p> <ul style="list-style-type: none"> ▶ Use a smaller amount of drugs than before ▶ Smoke or snort drugs instead of injecting to reduce the speed of absorption into the body ▶ Use with someone else present or ask someone to check on you.
Using drugs of unknown potency can increase the risk of overdose	<p>Take care when using drugs from a new and/or unknown source:</p> <ul style="list-style-type: none"> ▶ Inject a “test shot” to test potency ▶ Ask others about the potency
Early intervention during an overdose can reduce the chances of death	Know how to recognize symptoms of overdose in oneself and others
	Know what to do, and what not to do, if you or someone else shows symptoms of overdose
	Call for assistance if you or someone else is overdosing
	Do not leave someone who is overdosing alone

VIII. NOTES AND REFERENCES

- 1 *Coverage of selected services for HIV/AIDS prevention, care and support in low and middle income countries in 2003*. Washington, DC. USAID/UNAIDS/UNICEF/WHO. The POLICY Project, 2004. On p. 17, it is estimated that in 2003 some 150,000 injecting drug users in low and middle income countries globally were receiving services from NSPs (out of a total population of injecting drug users of 9.2 million). This represents an "ever reached" figure of 1.6%.
- 2 *Preventing the transmission of HIV among drug abusers: A position paper of the United Nations System*. Annex to the Report of 8th Session of Administrative Committee on Co-ordination Subcommittee on Drug Control. Geneva, UNAIDS, 28-29 September 2000. (http://www.ceehrn.org/EasyCEE/sys/files/UN%20position_1.pdf)
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