ToT Training for Practitioners and Service Users on scaling up harm reduction services for PWID

DAY 1

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Welcome to day 1 of the training

Before we begin, please complete the pre-training questionnaire and return it to me. If you find any of the questions difficult, please let me know or please ask your neighbour.

Please write your name where you are seated.

During the training, please allow one person to speak at a time. If you have a question, please raise your hand.
Knowing me, knowing you

Name

Position and location

Favourite snack

Least favourite drink

Dream come true
Day 1

Learning objectives

• Increased knowledge and understanding of how injecting drug use is contributing to the global HIV epidemic;
• Knowledge surrounding how PWID are more vulnerable to HIV and other BBVs and infections especially those who are involved in high risk injecting behaviours;
• An understanding of current best practice in reducing the harms associated with injecting drug user;
• Improved understanding of safer injecting practices, provision of equipment which can minimize harm among PWID
• Increased awareness around opioid overdose management and what steps to take in the event of overdose including the administration of Naloxone Hydrochloride
What health challenges do PWID face?

- High levels of morbidity and mortality
- Drug related harms include: overdose, drug-related deaths, blood borne infections such as HIV, HCV, HBV and bacteremia/sepsis
- HCV currently the most prevalent infectious disease affecting PWID
- In an estimated total of 12.7 - 16 million PWID worldwide, it is believed that 1.2 million are infected with HIV (UNAIDS 2014) and 10 million with HCV (WHO 2014)
Risks of injecting

- Injecting drugs with a contaminated needle directly into vein much more efficient way of transmitting HIV than through unprotected sexual intercourse
- HIV risk from sharing HIV infected needle is between 0.63-2.4% per act
- Hepatitis C (HCV) more virulent than HIV and also prevalent across PWID
- Hepatitis B (HBV) can cause both acute and chronic disease but preventable with vaccine
What are HIV and AIDS?

Human Immunodeficiency Virus (HIV) is a virus that leads to Acquired Immunodeficiency Syndrome (AIDS).

The virus infects specific cells that are important to the human immune system and ultimately leads to a progressive failure of the immune system characterized by increased susceptibility to opportunistic infections and cancers.

It is spread by blood, semen, vaginal fluid and breastmilk.
HIV transmission

- Unprotected penetrative sex with someone who is infected
- Injection or transfusion of contaminated blood or blood products, transfer of contaminated bodily fluids through a break in the skin; donations of semen, skin grafts or organ transplants
- From infected mother to baby, during pregnancy or through breastfeeding
- Sharing contaminated injecting equipment
HIV prevention

• Sexual transmission of HIV can be prevented through the consistent use of condoms
• HIV can be prevented by the use of new and sterile needles and syringes for the injection of prescribed or non prescribed drugs
• HIV transmission from an infected mother to her child can be prevented through the use of anti-retroviral medicines by the mother before and during pregnancy as well as while the mother is breastfeeding
Common myths about HIV and AIDS

There are many misunderstandings about HIV transmission.

You can not get HIV from doing any of the following with someone who is HIV infected:

- Kissing or hugging
- Shaking hands
- Sharing eating, drinking utensils
- From mosquito bites
- Touching / cleaning urine or vomit of a person living with HIV
HIV treatment

- HIV can be treated with the use of medicine called antiretroviral medicines (ARVs), also known as ART. At this stage however, it can not be reversed or cured.
- ARVs work to reduce the viral load of HIV in the body and if initiated early on, can help reduce viral load to virtually undetectable levels.
- ARVs can significantly delay progression to AIDS for many years, prolonging life expectancy.
- Post Exposure Prophylaxis (PEP) reduced the chance of seroconversion to HIV and is given to people who report potential occupational or non occupational exposure to HIV within 72 hours.
- Must be prescribed within 72 hours of exposure to prevent serconversion to HIV.
- PEP is considered in certain situations: exposure to unsafe injecting, unprotected sexual intercourse (including rape), needle-stick injury.
Comprehensive package for HIV and reducing other harms associated with drug use

(Recommended by WHO, UNODC, UNAIDS from 2009)

- NSP
- OST
- ART
- HIV testing and counselling
- Prevention and treatment of STIs
- Condom provision
- Targeted IEC
- Prevention and management of viral Hepatitis and TB
- Community distribution of Naloxone

Provided in combination and at high coverage levels, can reduce up to 50% of new infections in PWID
The Evidence Base

The overwhelming body of evidence on the effectiveness of harm reduction (including in prison and closed settings) is the basis for a comprehensive package of interventions recommended by the WHO, UNODC and UNAIDS for preventing the spread of HIV and reducing other drug related harms:

- 2005-2007: 8 European and C. Asian countries saw a tripling of NSP and 80% reduction in injecting risk behaviour related to HIV and HCV and reduced new infections.
- Ten years of NSP in Australia reduced no. of HIV cases by up to 70% and HCV by up to 43%.
Opiate Substitution Therapy

• Drug dependence is a chronic health condition and long-term and continued treatment is often required
• PWID remain highly vulnerable to relapse thus evidence based treatment is necessary
• OST (mainly methadone or buprenorphine maintenance therapy) has demonstrated its effectiveness in the reduction or complete cessation of the use of heroin and other opioids
• Methadone Maintenance Therapy (MMT) associated with a 54% reduction in the risk of HIV infection among PWID as well as decreasing risk of HCV and increase adherence to ART, lower other health expenditures and reduce opioid overdose risk by almost 90%
• Data from Portugal, Vietnam and NZ reveals a significant decrease in crime amongst people who had started on a form of OST
Opioid overdose

- 70,000-100,000 die from opioid overdose every year
- Naloxone is an antidote to opioid overdose which is inexpensive and can save many lives
- WHO recommends that people likely to witness an overdose (fellow drug users, their social networks, friends and family) should have access to naloxone and be instructed in its use for emergency management of suspected opioid overdose
The Combination Approach

- Individual HR approaches successful in reducing drug related harm
- BUT even more effective when delivered as a package together AND combined with other prevention services such as condom programmes and HIV treatment
NSP and OST coverage globally
No. of newly diagnosed cases of HIV in Portugal
(since increase of HR efforts and decriminalization of drug use 2000-2013)

HIV and the regional response

- HIV has significant implications for individual and public health and can undermine socioeconomic development
- 2016 Political Declaration on ending AIDS
- Called on an urgent response to support countries in W. and C. Africa to meet the Fast-Track Targets by 2020
- July 2016: An African Union Summit backs AIDS Watch Africa
- 2017 at least ten countries including Nigeria begin the implementation of a catch-up plan to address insufficient progress in reducing new HIV infections and AIDS related deaths as well as elimination of mother-to-child HIV transmission
Need for action

• 25 countries of W. and C. Africa account for 18% of the global HIV burden despite having only 6% of the global population
• Epidemic especially acute for women who constitute 56% of adults living with HIV
• HIV treatment gap of 4.7 million with only 2.1 million people on ART at the end of 2016 (22-44%)
• Compares with E. and S. Africa which has a treatment coverage of 60% in 2015
• 6.5% HIV prevalence among PWID
Safer injecting

Location: try to choose the safest place possible for injecting

- one that is relatively clean, dry, warm and well lit
- where chances of getting caught by law enforcement are minimal
- There is adequate space for yourself and equipment
- Ideally a water supply
- Access to a support system particularly to assist in cases of overdose
Safer injecting equipment

Materials: where possible

• **Needle and syringe** most important piece of equipment BUT also can be the most challenging to obtain

• Needle GAUGE refers to the size of hole / bore at the tip of the needle. The higher the gauge, the thinner the needle and smaller the hole. A 28 gauge needle (28G) will be thinner than a 25G or a 18G. Most PWID use a standard insulin/diabetic set 27G/28G or tuberculin set 25G. Smaller the gauge, smaller the puncture wound therefore LESS opportunity for infection to occur

• Drugs cut with a lot on impurities such as crushed pills means the point of the syringe may get clogged

• Needle length varies: insulin needles are typically ½ inch in length, tuberculin needles 5/8 of an inch. A needle which is too short may miss the vein and one too long may go too deep through.
Needle and syringes

• Single unit sets (one-piece sets) are recommended over detachable sets. Standard insulin injection equipment is typically one piece while tuberculin are often detachable.
• One piece sets provide less opportunity for HIV to survive in dried blood than in detachable sets which have a large reservoir. Also known as DEAD SPACE.
• Syringe size also varies: standard insulin and tuberculin syringes are typically 1cc in size / 1ml and most PWID find this ideal
• Trials in Europe, Australia and the US have found that retractable syringes are unacceptable to PWID
Filters

• **Filter:** prevents undissolved particles of the drug and other debris entering the syringe and veins.
• A common practice is to reuse saved filters and then extract further trapped solution for another shoot and in doing so, enhance the spread of HIV and other viruses.
• A fresh filter will prevent HIV and other viruses getting into the syringe though bacteria will remain therefore filters should also be distributed.
• Pore width of 0.22 micrometres or if not available, cotton wool, end of a cotton earbud.
• Cigarette filters are not safe to use since they contain glass and will further damage veins.
Sterile water, swabs and spoons

- **Sterile water:** many PWID will share common or untreated water for drug preparation resulting in small amounts of blood from one injector mixing with the common water supply.
- Non-sterile water carries masses of bacteria resulting in further health problems such as abscesses and endocarditis.
- Sterile water ampoules contain enough water to mix drugs into an injectable form but once opened the ampoules can not be recapped and reused – eliminating risk of contamination and re-use.
- **Swabs:** alcohol swabs clean the skin before and after injection. Distributing these to clients can reduce the risk of abscesses and other bacterial infections.
- **Spoons:** drugs in powder form need to be mixed with water to make a solution for injection and requires a cooker as the container for mixing. Heat may need to be applied thus steel is recommended.
Acidifiers and tourniquet

- **Acidifiers:** some insoluble pharmaceutical drugs as well as crack and brown heroin can be turned to a salt using an acid
- Many PWID will not have safe acidifiers such as pure ascorbic, citric or acetic acid available
- Lemon juice or vinegar promote the growth of bacteria and fungi. These liquid acids can lead to infections such as endocarditis of the heart and candidal endophthalmitis of the eyes – a cause of blindness
- Single-sachets of citric or ascorbic acid can be provided
- **A tourniquet** acts as a ‘tie off’ to cause the veins to bulge making them more accessible for injection. Elastic tourniquets are recommended over belts, bandanas, cloth etc as they do not release quick enough causing trauma to the skin
Bleach and other disinfectants

• Use of bleach can be somewhat effective in disinfecting syringes and other injecting equipment contaminated with blood containing HIV but still less effective than using a sterile needle and syringe
• '2x2x2' method: flush twice with clean water, twice with full-strength bleach, twice with clean water. Note, this method will not kill all the HIV virus and other BBVs
• Following the first flush with water, leaving equipment in bleach for minimum 2 minutes is recommended to further kill HBV and HCV viruses
• Cookers and spoons will also require bleaching if they have been shared. Filters can never be disinfected effectively, use a new one
• WHO recommends bleach only used as an adjunct to NSP and the risks of its effectiveness also noted
Safe injecting waste disposal
Safe injecting kits
Safe injecting kits
Safer injecting kits

Kit 1
- Male condom
- Alcohol wipe
- 2% local anaesthetic
- Safety lancet
- Sterile sharps
- Sterile needles

Kit 2
- 1% local anaesthetic
- Alcohol wipe
- 2% local anaesthetic
- Safety lancet
- Sterile sharps
- Sterile needles
NSP stock room
Safer injecting practices

• Basics
  • Dividing drugs safely
  • Choosing an injecting site ‘the hierarchy of safety’ and cleaning the site

Arms
Hands
Legs
Feet
Groin
Neck

• Tying up
• Registering
• Pulling out
Group work exercise 1

• Produce a leaflet for a harm reduction pack for PWIDS
• Consider needs and the main features of your target group
• Groups of 6, 15 minutes
• Key messages on safer injecting (pictures, acronyms)
NSP Core Services

• Aside from providing injecting equipment and advice around safer injecting practices, it is recommended that NSPs and their partners also provide:

  • Education, advice and information
  • Overdose management, advice and support
  • First aid for abscesses and minor ailments
  • Low-threshold drug treatment such as OST and psychosocial interventions
  • Voluntary HIV testing (with pre- and post-test counselling)
  • Diagnosis and treatment for STIs
  • ART and medication for opportunistic infections for HIV positive clients
  • HBV, HCV testing, HBV vaccination
  • Referral to drug user friendly legal and social support, health and medical services
Harm Reduction Education

- Peer-led and community-driven provision of HR services is PROVEN to increase uptake of services enabling increased access
- Outreach and peer education have become the cornerstone of effective strategies to work with PWID
- Harm reduction information and education is essential if NSPs are to prevent the spread of HIV and Hepatitis
- NSP workers can consider that no matter how brief the intervention with the client, is an opportunity to build a rapport and disseminate critical information
How does behaviour change take place?

- Understanding the cycle of change
- Understanding the two-levels associated with behaviour change;
Factors to enable behaviour Change

Harm reduction related messages should be locally tailored and targeted:

- Local drug using practices, patterns, types of drugs, trends, patterns, demographics, prevailing modes of infection transmission
- Language and images which are acceptable to and understood by the target group
- Culturally sensitive
- Embedding messaging
Group work exercise

- Consider the Cycle of Change (handout)
- Each group acts as one of these stages:
- In your group, discuss for 15 minutes how you can effectively support a client to reduce their risky injecting behaviours
Overdose prevalence

- Figures for overdose vastly underrepresent the actual prevalence but 70,000-100,000 people die from opioid overdose each year.
- US research further reveals that HIV seropositivity is associated with an increased risk of overdose: 75% greater risk than if HIV -
- Main cause of drug-related death
Effects of overdose

- It can be both prevented and if witnessed, treated (reversed)
- Recap: opioids activate the brain’s opioid receptors and if used in excess, can cause fatal respiratory depression
- In the event of a fatal overdose, the victim’s breathing slows to the point where there is an insufficient oxygen level in the blood
- If oxygen saturation falls below 86% (normal is >97%), the brain will struggle to function
- As a result, individual becomes unresponsive, blood pressure drops and heart rate slows resulting in cardiac arrest
- Non-fatal overdose can significantly contribute to cerebral hypoxia, prolonged hospitalization and brain damage
Risk factors for opioid overdose

- Increase in opioid availability (illicit and prescribed)
- Reduction in heroin availability and purity
- Increases in prescribing of pharmaceutical / prescription opioids (example of the USA opioid epidemic)
- Polydrug use particularly opioids and other psychoactive substances (alcohol, sedatives, benzodiazepines)
- Opiates and smoked crack cocaine resulted from impaired breathing and acute hypertension
- One study found that snowballing heroin and cocaine have a 2.6x greater risk of overdose
- No access to OST (reduces risk of overdose by 90%)
- Reduced tolerance following abstinence (prison release, relapse following treatment or hospital)
Identifying opioid overdose

Combination of three signs and symptoms aka “opioid overdose triad”

- Pinpoint pupils
- Unconsciousness
- Respiratory depression
  (<10 breaths per minute or 1 breath every 5 seconds)

They might also have the following:

- Blue lips or fingernails
- Deep snoring and/or gasping
- Pale, clammy skin
Identifying opioid overdose

Combination of three signs and symptoms aka “opioid overdose triad”

Video
Overdose: what to do

SCARE ME

S = stimulation (wakening)
C = call for medical help
A = airway
R = rescue breathing
E = evaluate breathing and response

M = muscular injection of Naloxone
E = evaluate and support
Overdose: recovery position

1. Recovery position (STEP-1)
2. Recovery Position (STEP-2)
3. Recovery position (STEP-3)
4. Recovery position (STEP-4)
Overdose: clearing the airway
Overdose: evaluations

- Evaluate and reassess
- Prepare the Naloxone if available
Naloxone: most effective treatment for overdose

- Naloxone Hydrochloride (Naloxone, Prenoxad, Narcan, Evzio) is a medication which can rapidly reverse overdose
- It is an opioid antagonist—it binds to opioid receptors reversing and blocking the effects of other opioids
- It can very quickly restore normal breathing to a person whose breathing has stopped due to opioid overdose
- It comes in injectable form (Naloxone), auto-injectable (Evzio) or prepackaged nasal spray (Narcan)
- Liquid Naloxone HCl for intramuscular injection is the most common and normally comes in vials
How to administer Naloxone

1. Put on gloves where possible, clean entry place with an alcohol swab
2. Ensure individual is still in recovery position
3. Remove the cap from the vial carefully leaving the rubber plug of the vial intact
4. Insert the (>3cm) needle / syringe through the rubber plug from the upside down vial
5. Pull back on the plunger taking up to 1ml
6. Inject a 1ml dose of Naloxone at a 90 degree angle into a large muscle (upper arm, thigh muscle although outer buttock also possible)
7. Wait 3 minutes, if no reaction, repeat. If there is no response following up to 10ml, it is probably that the emergency is not opioid overdose
Naloxone procedure

- Naloxone will temporarily block the opioids, waking up the individual and making them breathe within 1-5 minutes.
- The effects normally last 60-90 minutes during which time you should keep the individual awake and continue monitoring. Further overdose can set in afterwards thus the steps can be repeated.
- It has no effect except in the presence of opioid drugs.
- It does not get you high. In fact, it can bring on rapid withdrawal. Explain carefully to the individual that they are rapidly withdrawing due to the life-saving administration of procedure and that using opioids immediately may bring about another overdose.
- Support them with symptomatic treatment and make them comfortable.
Post-overdose: recovery counselling

- Following a full recovery from the overdose, he/she should be counseled to prevent further near fatal occurrences
  - Emphasize the risks, signs, symptoms and emergency measures which were undertaken
  - Offer OST and other brief interventions
  - Safe injecting methods and ways to change from injecting to non-injecting behaviour
Overdose management
Operational issues

- Staff working with PWID have an essential role in overdose management and prevention
- OSS / NSP management should develop clear protocols in case overdose in the community is reported and should include:
  1. Who is the contact person in case of overdose
  2. Where can the client receive overdose treatment e.g. Naloxone
  3. What steps should be followed
  4. Should the emergency services be contacted and if so, which ones
Overdose management
Operational issues (continued)

- Every OSS / NSP should collect data on the prevalence and nature of overdose among clients
- To include clients experiencing AND witnessing overdose
- Record any additional factors which make their client(s) more vulnerable to overdose (e.g. changes in heroin purity, release from prison)
- OSS / NSP could appoint ‘Overdose Prevention Champions’
- Ensure clients, family members, peers all trained on overdose prevention e.g. holding regular groups, trainings etc.
- Advocacy, referral and linkage: mechanisms for referral to SAFE medical facilities which do not discriminate drug users and will not report clients. Law enforcement agencies should be sensitized appropriately so clients can access treatment without the fear of arrest and prosecution
Naloxone policy

- Included in the WHO Model List of Essential Medicines for many years
- It will not harm you if non-opioid dependent (it has no effects)
- Limited shelf life: trained responders need to be aware of the expiry date stamped on the box / vial and replace before expiry
- Many countries consider Naloxone by law as part of their first aid response under emergency
- Further advocacy to be done...
Group work

• With your colleagues, consider the prevalence of overdose in your area
• Document the patterns and trends associated with opioid use which could put your client at increased risk of overdose
• What steps can you take to increase support for PWID in your area at risk of overdose?
• What challenges do you foresee with regard to providing comprehensive support around overdose?
• Discuss for 15 minutes, recording your recommendations and present
ToT Training for Practitioners and Service Users on scaling up harm reduction services for PWID

DAY 2

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Day 2

Learning objectives

• Increased awareness around the neurobiological aspects of opioid dependence
• Knowledge around effective treatment for opioid dependence and how treatment such as OST can reduce the risks of HIV and other BBVs associated with high risk injecting behaviour
• Programme level awareness on OST: clinical, psychosocial, ethical
• Differences between pharmacological approaches in OST (methadone and buprenorphine)
• How well can OST be delivered to special groups such as pregnant women and PWID on HIV treatment?
Day 1 recap

What did we cover on Day 1?

- Risks associated with unsafe injecting behaviour
- Education around safer injecting practices
- How to reduce the risks of opioid overdose in the community
- What steps to take in the event of overdose
- Awareness around Naloxone and how it should be administered
- Putting in place an enabling environment for effective overdose management including Naloxone
- Designating overdose ‘champions’
- Increasing data collection, M&E on overdose prevalence and risks
Group work from yesterday (homework!)

- With your colleagues, consider the prevalence of overdose in your five areas: FCT, Akwa Ibon, Lagos, Benue and Nasarawa, Calabar
- Document the patterns and trends associated with opioid use which could put your PWID clients at increased risk of overdose
- What steps can you take now to increase support for PWID in your area at risk of overdose?
- What challenges do you foresee with regard to providing comprehensive support (including naloxone) around overdose?
Risks of injecting

- Injecting drugs with a contaminated needle directly into vein much more efficient way of transmitting HIV than through unprotected sexual intercourse
- HIV risk from sharing HIV infected needle is between 0.63-2.4% per act
- Hepatitis C (HCV) more virulent than HIV and also prevalent across PWID
- Hepatitis B (HBV) can cause both acute and chronic disease but preventable with vaccine
- In Nigeria, estimates from the IBBS 2014 suggest HIV prevalence of 3.4% (n=5,368)
Comprehensive package for HIV and reducing other harms associated with drug use

(Recommended by WHO, UNODC, UNAIDS from 2009)

- NSP
- OST
- ART
- HIV testing and counselling
- Prevention and treatment of STIs
- Condom provision
- Targeted IEC
- Prevention and management of viral Hepatitis and TB
- Community distribution of Naloxone

Provided in combination and at high coverage levels, can reduce up to 50% of new infections in PWID
The Evidence Base for OST

The overwhelming body of evidence on the effectiveness of harm reduction (including in prison and closed settings) is the basis for a comprehensive package of interventions recommended by the WHO, UNODC and UNAIDS for preventing the spread of HIV and reducing other drug related harms:

- Demonstrable results in reducing HIV among PWID in countries where OST / MMT is provided along with reduction in non-AIDS mortality
- However only 80/192 countries (158 countries report IDU) provide OST, mainly inhibited due to socio-structural factors – punitive laws, human rights abuses, stigma
- WHO 2013: OST improves access and adherence to ART, reduces opioid overdose and associated mortality, reduces criminality and improves social functioning and mental health
- Since 2012 only two countries, Burkina Faso and Turkey, have newly implemented OST. 25 countries have scaled up OST from small pilots into mainstream health systems
- Methadone Maintenance Therapy (MMT) associated with a 54% reduction in the risk of HIV infection among PWID as well as decreasing risk of HCV and increase adherence to ART, lower other health expenditures and reduce opioid overdose risk by almost 90%
- Data from Portugal, Vietnam and NZ reveals a significant decrease in crime amongst people who had started on a form of OST
NSP and OST coverage globally
Harm reduction programmes in the 158 countries that report people who inject drugs

**Needle & syringe programmes**
- 90/158 countries

**Opioid substitution therapy**
- 80/158 countries

IHRA Global State of Harm Reduction 2014
No. of newly diagnosed cases of HIV in Portugal
(since increase of HR efforts and decriminalization of drug use 2000-2013)

What exactly is Opioid Substitution Therapy: Understanding opioid dependence
Neurobiology and opioid dependence

- Different parts of the brain have different and distinctive roles in regulating pleasure
- The limbic system is the brain’s pleasure and reward centre
- The cerebral cortex is the brain’s hub for decision making, judgment, awareness
- Repeated opioid use induces a series of ‘neuroadaptations’ or dysfunctional circuits in the limbic system of the brain
- This results in an increased and extended reward value associated with the use of opioids and environmental cues associated with it, and, a decreased reward value associated with natural reinforcers encountered in every day life events
Neurobiology continued

• Opioid receptors – three kinds (mu, kappa, delta)
• Mu receptors mediate opioid effects of analgesia, euphoria, sedation and induce dopamine
• One aspect of prolonged opioid use is increased desensitization of the opioid receptor: this develops quickly within minutes and resolves within hours
• When the opiate is withdrawn, surplus of cAMP producing enzymes which ignite a ‘noradregenic storm’. Otherwise known as withdrawal which can be intensely dysphoric, creating an intense need to reinstate opioid use again
• Withdrawal symptoms can last an average of 7 days
• Long term opioid use can change neuronal activity similar to those involved with learning and memory which is why there is a high risk of relapse even after a long period of abstinence
Opioid Substitution Therapy (OST)

Broadly speaking there are two forms of pharmacological treatments commonly available and proven as effective in opioid dependence treatment:

### Management of opioid withdrawal
- Gradual cessation of an opioid agonist (i.e. methadone)
- Short term use of a partial agonist (i.e. buprenorphine)
- Sudden opioid cessation and use of alpha-2 adrenergic agonists to relieve withdrawal symptoms

### Agonist Maintenance Treatment
- Usually consists of daily admin of an opioid agonist (e.g. methadone) or a partial agonist
- Aims to reach a stable level of opioid effect of neither intoxication nor withdrawal but more normal and stable
- Aims include
  - Reduction or cessation of drugs, infecting and risks
  - Reduction of OD risk, criminal activity
  - Improvements in psych and physical health
OST and treatment outcomes

- Most patients will cease opioid use completely or use it less regularly with only 20-30% reporting continued high levels of drug use.
- Relapse can be common if agonist maintenance treatment is stopped abruptly.
- OST proven to be more effective when coupled with psychosocial assistance.
OST and the regulatory framework

• Countries operate within an international regulatory framework and methadone and buprenorphine are medicines under international control
• Regulated under the conventions
• The conventions ensure that narcotic drugs and psychotropic substances (including opioids) are available exclusively for scientific and medical purposes
• The conventions also include the requirement to make treatment available for people dependent on narcotics or psychotropic substances
• International and legal regulations for the procurement, distribution, storage and prescription of opioids
• Where there are no current national regulations, these should be developed in accordance with the conventions
• Concerns with diversion: video by The EMCDDA (2016) https://youtu.be/F0A_6r3D--w
National treatment policy

• 2016 National Treatment Guidelines for HIV, NACA recommend:

  “Prevention and treatment of drug or alcohol abuse

  Clients who abuse drugs, alcohol and other substances of abuse should receive or be referred to substance or alcohol abuse prevention and treatment services. Innovative interventions such as opioid substitution and needle exchange should be considered as prevention interventions during program implementation.” (p.187)

• Under Annex 1, ART drug and non-ART drug contraindications list methadone
National treatment policy (continued)

- NDCMP 2015-2019 states:

‘There are clear gaps in HIV prevention, treatment and care services for drug users who are at risk of, or live with HIV infection. HIV and AIDS services for people who inject drugs are currently limited.’

‘...The NDCMP 2015-2019 aims to close this gap by including activities which will facilitate the expansion of drug users programme in the National HIV and AIDS Strategic Plan...will establish models of comprehensive, accessible, affordable and evidence-based HIV prevention, treatment and care services for drug users with a focus on PWID will be developed'
OST Coverage and Criteria

• To ensure optimal coverage and treatment outcomes, OST should be accessible to anybody meeting the criteria for inclusion regardless of IDU status
  • Criteria differs between country, minimum age may apply, length of opioid dependence, physical / mental health and personal motivation
  • Ideal for opioid dependent who can give informed consent and there are no specific contraindications
• Free of charge or covered by insurance
• Delivered in outpatient clinics (HIV OSS, drug treatment centres) or primary-health care
• Ideally low-threshold
  • Easy to clients to register, already receiving harm reduction interventions, already linked to outreach
• WHO recommends OST primarily for longer-term maintenance therapy
• Ideally both methadone and buprenorphine available under OST
Key principles for OST

• Retention in therapy: if a client still uses illegal drugs, this should not exclude them but it indicates a need for clinical readjustment

• Safety: The programme should ensure the safety of clients, staff and medication. Clear information should be provided listing the rules and regulations of the centre

• Openness and flexibility: rules and regulations should not be overly burdensome on the client. Long waiting times, limited dispensing hours and compulsory urine testing are not recommended. Same day treatment upon registration is recommended

• Respect: high quality care, no-stigmatizing, non-discriminatory care
Clinical governance of OST

• In most settings, **medical staff** will be required for the treatment of opioid dependence (clinical assessment and prescription for pharmacotherapy) together with a psychosocial drugs worker who is primarily response for care-planning and delivery of psychosocial interventions.

• As well as doctors, nurses and medical assistants can normally assist with dispensing but in compliance with local regulations.

• Methadone and buprenorphine **can do harm** if improperly prescribed therefore most countries have a system of licensing medical staff to prescribe treatment.

• Clinical supervision is necessary for prescribing and supervising staff.
Dispensing

• Generally, responsibility of a pharmacist to dispense methadone and buprenorphine but depending on national law and regulations can also be nurses, medical staff

• Any medical and non-medical personnel require specific training in OST based on national regulations and clinical guidelines
Role of Psychosocial support staff

Improved treatment outcomes where psychosocial interventions routinely offered in conjunction with pharmacological treatment

- To compliment pharmacological prescribing, provision of support around drug dependence and in particular opioid dependence
- Motivational interviewing and care planning (based on SMART objectives)
- Psychosocial support (e.g. basic of cognitive behavioural therapy)
- Staff should receive supervision, support and standardised operational instructions on the management of intoxication, dealing with challenging behaviour and other emergency conditions
- Moderate intensity 1-2x week
Psychosocial interventions

Ideally, training and support should be provided in the following:

• In depth knowledge of drug dependence (illicit, pharmaceutical and psychoactive) and in particular opioid dependence
• Assessment for opioid dependency based on evidence-based tools
• Motivational interviewing and care planning (based on SMART objectives)
• Psychosocial interventions to support cognitive and behaviour change (e.g. cognitive behavioural therapy)
• Staff should receive supervision, support and standardised operational instructions on the management of intoxication, dealing with challenging behaviour, conducting risk assessments and other co-morbidities
Ethics, confidentiality and clinical record keeping

- Medical records explicitly gathering and explaining consent
- Confidentiality and where rare circumstances where confidentiality may be broken
- Client identification
- Care planning

Medication safety

- National regulations for procurement, storage, dispensing and dosing
- Methadone and buprenorphine can be fatal if the wrong dose is dispensed
- Identity checking on dosing (photo ID and several unique identifiers)
Clinical guidelines for OST

• Need for clear, evidence-based guidelines developed at the national level and possibly sub-national level to reflect local laws, policies and conditions:
  • UNODC 2017-2018
• Treatment policies: objectives, indications, settings, dosage, reasons for termination should be clearly communicated to clients and staff
• Men and women can be treated in the same facilities provided culture and gender sensitive needs are addressed
• Clients receiving treatment for HIV, Hepatitis and TB can absolutely commence OST and excellent results can be obtained for patients
• For clients with TB, OST may need to develop additional policies regarding access since there may be other immunocompromised clients
Prescribing or ‘scripting'

Regulatory controls normally provide standard treatment protocols for administering methadone, which include:

- Initial dosing procedures
- Dosage amounts
- Drug testing schedules
- Rules for supervised of take-home prescription
OST and M&E

• Need for continued monitoring and evaluation (intermittent and ongoing) of both the process and the outcomes of the treatment provided, such as:

  ✓ Number of PWID informed about OST and referred
  ✓ Number of PWID taking up OST
  ✓ Changes in drug use since commencing OST
  ✓ Changes in risk behaviours associated with IDU
  ✓ Other changes in social functioning, physical and mental health
Group work

In groups based on locality, discuss opioid dependence among PWIDS in your local area. Consider the following, 20 minutes:

1. What forms of opioids are used?
2. How well do you think you clients would cooperate with OST and treatment features such as supervised daily dispensing?
3. How can you motivate clients to start on OST and remain in treatment?
4. What barriers do you think clients may face in accessing a OST programme?
### OST – pharmacology

#### Considerations: Methadone or buprenorphine?

<table>
<thead>
<tr>
<th>Methadone</th>
<th>Buprenorphine</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Full agonist</td>
<td>• Partial agonist</td>
</tr>
<tr>
<td>• Oral solution and tablet. Oral administration can be supervised</td>
<td>• Sublingual tablet normally 2mg and 8mg</td>
</tr>
<tr>
<td>• Long half-life 8-59 hours (mean 24 hours)</td>
<td>• 5-15 minutes to dissolve therefore harder to supervise administration</td>
</tr>
<tr>
<td>• No ceiling effect so can be abused</td>
<td>• Long half-life 24-60 hours</td>
</tr>
<tr>
<td>• More effective relief from withdrawal</td>
<td>• Long duration of action means it can be administered every 2\textsuperscript{nd} / 3\textsuperscript{rd} day in majority of stabilized patients</td>
</tr>
<tr>
<td>• Standard care for pregnant or breastfeeding women</td>
<td>• Takes less time to arrive at appropriate dose</td>
</tr>
<tr>
<td>• Moderate dose 50-80ml daily showed slightly improved retention rates in treatment</td>
<td>• Creates less physical dependency</td>
</tr>
<tr>
<td></td>
<td>• Less severe withdrawal than from methadone</td>
</tr>
<tr>
<td></td>
<td>• Lower rate of physical overdose</td>
</tr>
<tr>
<td></td>
<td>• Moderate dose 6-8mg daily</td>
</tr>
</tbody>
</table>
OST clinical assessment

- First step is to establish a relationship with the patient, explaining information sharing protocol, confidentiality and consent
- Determining the physical, psychological and social healthcare needs
- Assessment should include factors which may influence drug use such as past treatment experiences, living conditions, legal issues

The assessment:

1. **Substance use history:** drug use past/present, pattern for each substance, quantity and frequency, current level of neuroadaptation, reasons for use, drug induced health and social problems, treatment history, patients view of their own substance misuse and motivation levels, client’s short- medium- and long- term goals

2. **Physical examination:** degree of intoxicification / withdrawal, review of injecting sites and assessment of consistency with self reported patterns and frequency of use
OST clinical assessment
(continued)

3. **Urine drug screening:** where possible, a biological sample should be routinely conducted to ascertain opioid use and how recently in order to fulfill treatment entry criteria. Should be considered in tandem with observation for neuroadaptation to opioids. Negative test and absence of withdrawal symptoms should prompt caution and will not necessarily meet criteria for treatment. Drug testing should ideally be rapid and clients should not have to wait to commence treatment.

4. **Concurrent with testing for HIV and other BBVs**

5. **Identification of patient:** importance of ID for the dispensing of controlled medicines such as methadone. Photograph i.d. and other accurate identifiers to be retained securely and in line with confidentiality and regulations.

Commencing treatment and risk of overdose

- During the first two weeks of OST treatment, risk of overdose is increased as dose of OST is titrated and adjusted accordingly. During this period, increased overdose prevention strategies should be exercised including the provision of naloxone to new OST clients and how it should be administered.

- After two weeks, once the clients is stabilized and maintained on OST, the risk of overdose drops significantly although clients should be warned on ‘doubling up’ of opioid use on top of OST and those risks.
Cost effectiveness

- WHO (2009) and UNODC (2016) studies on OST in different countries
- From USD 0.80 to 15 a day
- In moderate dosing, methadone is cheaper than buprenorphine
- Methadone and buprenorphine costs well below the accepted thresholds for cost-benefit analysis of treatment
- OST ‘pays for itself’ saving elsewhere in health, social, legal costs
Dosing: induction

- During methadone induction, the initial daily dose should depend on the level of neuroadaptation as per the assessment; it should generally not be more than 20mg and certainly not more than 30mg.

- During buprenorphine induction, risk of overdose with buprenorphine is lower compared to with methadone. Patients with moderate levels of neuroadaptation will generally tolerate initial doses of 4-8mg per day.
Dosing: maintenance

• There is moderate quality evidence that high doses of methadone (>60-109mg) result in better retention in treatment and less heroin use than lower dose (<40mg) where high levels of opioid neuroadaptation occur.

• In clinical practice, dosage should be tailored. Pharmokinetic studies indicate differences between client metabolism and methadone absorption thus individual tapering and titration should be applied according to response.
Supervision of dosing

- **Supervised administration** ensures reduction in diversion and injection
- Studies show increased levels of **diversion** of buprenorphine than methadone partly due to the injecting potential of buprenorphine
- Longer shelf life of buprenorphine and milder withdrawal symptoms mean it can be **inappropriately shared**
- **Buprenorphine difficult to supervise** effectively as it is sublingually administered whereas methadone swallowed as liquid
OST for specific groups

- Patients with HIV/AIDS, Hepatitis, TB adhere better to ART, HCV and HBV, TB treatment when on OST
- TB patients should prioritize TB treatment over OST although OST should commence once other patients not put at risk from TB
- PWID with HIV pre-ART will likely adhere better on ART treatment regimen if stabilized on OST first
OST for specific groups (continued)

- **Pregnant or breastfeeding women** respond well to OST especially given risks of withdrawal on the unborn baby and risk of miscarriage.
- Relapse to opioid use can result in poor obstetric outcomes.
- Methadone and buprenorphine have minimal long-term developmental impacts on children compared to risk of maternal opioid use and resulting harms.
- Semester 2-3 methadone doses may have to be increased slightly due to increased metabolism and circulating blood volume. Post-natally, the dose may be adjusted back to lower levels as some of these changes reverse.

- **Breastfeeding is safe during OST** and the benefits of breastfeeding should be promoted (with the exception of HIV positive mothers >6 weeks following birth.)
Group work

Form groups as follows:

1. Clinical staff (Pharmacists, Doctors, Nurses, Laboratory Staff)
2. Project coordinators / management
3. Project workers, peer workers and service users
4. M&E staff

Which advocacy related steps relating to future implementation and scaling-up of OST do you think you can action from now?

Consider action at BOTH the policy level and at the local level
What I got from the training yesterday and today

- What did you study that confirmed something you already knew?

- What do you feel about the new information you have learned?

- What challenged you today and may have changed your mind on an issue?

- What is one way you plan to change your work, based on what you learned today / yesterday?
ToT Training for Practitioners and Service Users on scaling up harm reduction services for PWID

DAY 3

Sarah Van der Veen

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Day 3

Learning objectives

• Increased knowledge and understanding of how injecting drug use is contributing to the global HIV epidemic;
• Knowledge surrounding how PWID are more vulnerable to HIV and other BBVs and infections especially those who are involved in high risk injecting behaviours;
• An understanding of current best practice in reducing the harms associated with injecting drug use;
• Improved understanding of safer injecting practices, provision of equipment which can minimize harm among PWID;
• Increased awareness around opioid overdose management and what steps to take in the event of overdose including the administration of Naloxone Hydrochloride
Comprehensive package for HIV and reducing other harms associated with drug use

(Recommended by WHO, UNODC, UNAIDS from 2009)

- NSP
- OST
- ART
- HIV testing and counselling
- Prevention and treatment of STIs
- Condom provision
- Targeted IEC
- Prevention and management of viral Hepatitis and TB
- Community distribution of Naloxone

Provided in combination and at high coverage levels, can reduce up to 50% of new infections in PWID
What health challenges do PWID face?

- High levels of morbidity and mortality
- Drug related harms include: overdose, drug-related deaths, blood borne infections such as HIV, HCV, HBV and bacteremia/sepsis
- HCV currently the most prevalent infectious disease affecting PWID
- In an estimated total of 12.7 - 16 million PWID worldwide, it is believed that 1.2 million are infected with HIV (UNAIDS 2014) and 10 million with HCV (WHO 2014)
Risks of injecting

- Injecting drugs with a contaminated needle directly into vein much more efficient way of transmitting HIV than through unprotected sexual intercourse
- HIV risk from sharing HIV infected needle is between 0.63-2.4% per act
- Hepatitis C (HCV) more virulent than HIV and also prevalent across PWID
- Hepatitis B (HBV) can cause both acute and chronic disease but preventable with vaccine
The Evidence Base

The overwhelming body of evidence on the effectiveness of harm reduction (including in prison and closed settings) is the basis for a comprehensive package of interventions recommended by the WHO, UNODC and UNAIDS for preventing the spread of HIV and reducing other drug related harms:

✓ 2005-2007: 8 European and C. Asian countries saw a tripling of NSP and 80% reduction in injecting risk behaviour related to HIV and HCV and reduced new infections
✓ Ten years of NSP in Australia reduced no. of HIV cases by up to 70% and HCV by up to 43%.
✓ 1992-2012 New York saw a sharp decrease in new HIV infections amongst PWID attributed to the introduction and scale up of NSP from 1992
Opioid overdose

- 70,000-100,000 die from opioid overdose every year
- Naloxone is an antidote to opioid overdose which is inexpensive and can save many lives
- WHO recommends that people likely to witness an overdose (fellow drug users, their social networks, friends and family) should have access to naloxone and be instructed in its use for emergency management of suspected opioid overdose
The Combination Approach

- Individual HR approaches successful in reducing drug related harm
- BUT even more effective when delivered as a package together AND combined with other prevention services such as condom programmes and HIV treatment
NSP and OST coverage globally
No. of newly diagnosed cases of HIV in Portugal
(since increase of HR efforts and decriminalization of drug use 2000-2013)

Safer injecting

Location: try to choose the safest place possible for injecting

- one that is relatively clean, dry, warm and well lit
- where chances of getting caught by law enforcement are minimal
- There is adequate space for yourself and equipment
- Ideally a water supply
- Access to a support system particularly to assist in cases of overdose
Safer injecting equipment

Materials: where possible

- **Needle and syringe** most important piece of equipment BUT also can be the most challenging to obtain
- Needle GAUGE refers to the size of hole / bore at the tip of the needle. The higher the gauge, the thinner the needle and smaller the hole. A 28 gauge needle (28G) will be thinner than a 25G or a 18G. Most PWID use a standard insulin/diabetic set 27G/28G or tuberculin set 25G. Smaller the gauge, smaller the puncture wound therefore LESS opportunity for infection to occur
- Drugs cut with a lot on impurities such as crushed pills means the point of the syringe may get clogged
- Needle length varies: insulin needles are typically ½ inch in length, tuberculin needles 5/8 of an inch. A needle which is too short may miss the vein and one too long may go too deep through.
Needle and syringes

- Single unit sets (one-piece sets) are recommended over detachable sets. Standard insulin injection equipment is typically one piece while tuberculin are often detachable.
- One piece sets provide less opportunity for HIV to survive in dried blood than in detachable sets which have a large reservoir. Also known as DEAD SPACE.
- Syringe size also varies: standard insulin and tuberculin syringes are typically 1cc in size / 1ml and most PWID find this ideal.
- Trials in Europe, Australia and the US have found that retractable syringes are unacceptable to PWID.
Filters

- **Filter:** prevents undissolved particles of the drug and other debris entering the syringe and veins.
- A common practice is to reuse saved filters and then extract further trapped solution for another shoot and in doing so, enhance the spread of HIV and other viruses.
- A fresh filter will prevent HIV and other viruses getting into the syringe though bacteria will remain therefore filters should also be distributed.
- Pore width of 0.22 micrometres or if not available, cotton wool, end of a cotton earbud.
- Cigarette filters are not safe to use since they contain glass and will further damage veins.
Sterile water, swabs and spoons

- **Sterile water:** many PWID will share common or untreated water for drug preparation resulting in small amounts of blood from one injector mixing with the common water supply.
- Non-sterile water carries masses of bacteria resulting in further health problems such as abscesses and endocarditis.
- Sterile water ampoules contain enough water to mix drugs into an injectable form but once opened the ampoules can not be recapped and reused – eliminating risk of contamination and re-use.
- **Swabs:** alcohol swabs clean the skin before and after injection. Distributing these to clients can reduce the risk of abscesses and other bacterial infections.
- **Spoons:** drugs in powder form need to be mixed with water to make a solution for injection and requires a cooker as the container for mixing. Heat may need to be applied thus steel is recommended.
Acidifiers and tourniquet

- **Acidifiers:** some insoluble pharmaceutical drugs as well as crack and brown heroin can be turned to a salt using an acid
- Many PWID will not have safe acidifiers such as pure ascorbic, citric or acetic acid available
- Lemon juice or vinegar promote the growth of bacteria and fungi. These liquid acids can lead to infections such as endocarditis of the heart and candidal endophthalmitis of the eyes – a cause of blindness
- Single-sachets of citric or ascorbic acid can be provided
- **A tourniquet** acts as a ‘tie off’ to cause the veins to bulge making them more accessible for injection. Elastic tourniquets are recommended over belts, bandanas, cloth etc as they do not release quick enough causing trauma to the skin
Bleach and other disinfectants

- Use of bleach can be somewhat effective in disinfecting syringes and other injecting equipment contaminated with blood containing HIV but still less effective than using a sterile needle and syringe.
- '2x2x2' method: flush twice with clean water, twice with full-strength bleach, twice with clean water. Note, this method will not kill all the HIV virus and other BBVs.
- Following the first flush with water, leaving equipment in bleach for minimum 2 minutes is recommended to further kill HBV and HCV viruses.
- Cookers and spoons will also require bleaching if they have been shared. Filters can never be disinfected effectively, use a new one.
- WHO recommends bleach only used as an adjunct to NSP and the risks of its effectiveness also noted.
Safe injecting waste disposal
Safe injecting kits
Safer injecting kits
Safer injecting kits
NSP stock room
Safer injecting practices

- Basics
  - Dividing drugs safely
  - Choosing an injecting site ‘the hierarchy of safety’ and cleaning the site

- Tying up
- Registering
- Pulling out
Group work

- Form groups according to your role (e.g. Clinicians, Psychologists, Project Staff, M&E etc.)

1. Consider how you can support implementing partners during the scaling up of HR and safer injecting support

   AND

2. What steps can be taken now to lay the foundation for future NS programming? Set out recommendations
NSP Core Services

• Aside from providing injecting equipment and advice around safer injecting practices, it is recommended that NSPs and their partners also provide:

  • Education, advice and information
  • Overdose management, advice and support
  • First aid for abscesses and minor ailments
  • Low-threshold drug treatment such as OST and psychosocial interventions
  • Voluntary HIV testing (with pre- and post-test counselling)
  • Diagnosis and treatment for STIs
  • ART and medication for opportunistic infections for HIV positive clients
  • HBV, HCV testing, HBV vaccination
  • Referral to drug user friendly legal and social support, health and medical services
Harm Reduction Education

- Peer-led and community-driven provision of HR services is PROVEN to increase uptake of services enabling increased access
- Outreach and peer education have become the cornerstone of effective strategies to work with PWID
- Harm reduction information and education is essential if NSPs are to prevent the spread of HIV and Hepatitis
- NSP workers can consider that no matter how brief the intervention with the client, is an opportunity to build a rapport and disseminate critical information
Behaviour Change

How does behaviour change take place?

• Understanding the cycle of change
• Understanding the two-levels associated with behaviour change;

- Individual (interventions + education)
- Group (changing norms + beliefs)
- Reduced risky behaviours
Factors to enable behaviour Change

Harm reduction related messages should be locally tailored and targeted:

- Local drug using practices, patterns, types of drugs, trends, patterns, demographics, prevailing modes of infection transmission
- Language and images which are acceptable to and understood by the target group
- Culturally sensitive
- Embedding messaging
The cycle of change: supporting PWID to change high risk behaviours

- Pre-contemplation
- Contemplation
- Action
- Ready for change
- Maintenance
NSP: Measuring Coverage

• “Comparative coverage” approach most effective to determine

• Human based in that it estimates % of PWID in regular contact with the NSP in a specific geographical area

• Regular = ‘at least once a month over a period of 12 months’

• Heartland M&E division will start to collect data from geographical areas relating to prevalence of injecting and high risk behaviour among PWID to better inform future coverage levels
NSP: Measuring Coverage

WHO/UNAIDS ‘Rapid Assessment and Response’ (RAR) methodology provides a tool which will assist in estimating coverage level and procurement requirements.

- By the 12th month of a pilot, aim is to reach 10% of PWID
- For example in an area of 10,000 PWID, NSP should be reached by at least 1,000 on a regular basis.
- For an NSP to be effective in behaviour change, every PWID should be receiving a minimum of 3 needles/syringes weekly.

Example of an estimation process:

*Months 1-3 (set-up phase)*: 0 per week = 0
*Months 3-6 (initiation phase)*: 500 per week x 13 weeks = 6500
*Months 7-9 (maintenance phase)*: 1500 per week x 13 weeks = 19,500
*Months 10-12 (maintenance phase)*: 2500 per week x 13 weeks = 32,500

*Annual Estimate (first year):* 58,500
NSP: Stock Management

• One success indicator for NSPs based on how well they stock is ordered, supplied, stored and disposed
• RAR should also include needle and syringe preferences and these should be reflecting in the stock held and provided
• All staff should be made aware of stock management processes as well as record-keeping and stock monitoring
• Regular stock inspections necessary
• Sufficient back stock in the event of delayed orders (minimum 3 month supply of back stock)
• Regular stock-level management review system
• Rules on disposal and collection of used injecting equipment
• Example order form:
NSP Programme Plan

• After the assessment, the first three-month plan for a fixed-site with outreach teams might look like the following
<table>
<thead>
<tr>
<th>Task</th>
<th>Deadline (month)</th>
<th>Resources needed</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obtain the necessary permissions and licences</td>
<td>1</td>
<td>Costs of incorporation, travel costs</td>
<td>Senior management</td>
</tr>
<tr>
<td>Assemble NSP pilot Advisory Group</td>
<td>1</td>
<td>Meeting space funds for participant's travel and expenses</td>
<td>Senior management and logistics, secretariat</td>
</tr>
<tr>
<td>Rent premises / vehicle</td>
<td>1</td>
<td>Funds for rental, fuel, incorporation</td>
<td>Senior management, logistics and AG members</td>
</tr>
<tr>
<td>Determine procurement levels</td>
<td>1</td>
<td>None</td>
<td>Senior management, clinical advisors and procurement team, state-level management</td>
</tr>
<tr>
<td>Hire additional staff</td>
<td>1</td>
<td>Funds for advertising,</td>
<td>Management and Human Resources, AG members</td>
</tr>
<tr>
<td>Develop initial monitoring system and order stock</td>
<td>2</td>
<td>Funds for procurement of stock, funds for stockroom</td>
<td>Senior management, clinical advisors and procurement team</td>
</tr>
<tr>
<td>Training delivery for key staff</td>
<td>2</td>
<td>Staff costs and AG costs, meeting room costs</td>
<td>Clinical and psychology leads</td>
</tr>
<tr>
<td>Determine M&amp;E and research project and deliver training</td>
<td>2</td>
<td>Staff costs for AG, training costs</td>
<td>Senior management, M&amp;E lead, M&amp;E staff, project staff</td>
</tr>
<tr>
<td>Initial advocacy phase</td>
<td>2</td>
<td>Staff costs, travel costs</td>
<td>Senior management, service users, state-level project managers, AG members</td>
</tr>
<tr>
<td>Determine policies and SOPs</td>
<td>3</td>
<td>Staff costs and AG costs, meeting room costs</td>
<td>Senior management, AG, clinical and psychology leads</td>
</tr>
<tr>
<td>Determine outreach routes</td>
<td>3</td>
<td>Staff costs and AG costs, meeting room costs</td>
<td>AG members, outreach coordinators, peer-educators</td>
</tr>
<tr>
<td>Recruit full compliment of staff/volunteers</td>
<td>3</td>
<td>Funds for advertising, staff costs, transport costs</td>
<td>state-level management, HR, outreach coordinators, project workers</td>
</tr>
</tbody>
</table>
Overdose prevalence

• Figures on overdose vastly underrepresent the actual prevalence. Available estimates suggest around 70,000-100,000 people die from opioid overdose each year
• US research further reveals that HIV seropositivity is associated with an increased risk of overdose: 75% greater risk than if HIV -
• Main cause of drug-related death
Effects of overdose

- It can be both prevented and if witnessed, treated (reversed)
- Recap: opioids activate the brain’s opioid receptors and if used in excess, can cause fatal respiratory depression
- In the event of a fatal overdose, the victim’s breathing slows to the point where there is an insufficient oxygen level in the blood
- If oxygen saturation falls below 86% (normal is >97%), the brain will struggle to function
- As a result, individual becomes unresponsive, blood pressure drops and heart rate slows resulting in cardiac arrest
- Non-fatal overdose can significantly contribute to cerebral hypoxia, prolonged hospitalization and brain damage
Risk factors for opioid overdose

• Increase in opioid availability (illicit and prescribed)
• Reduction in heroin availability and purity
• Increases in prescribing of pharmaceutical / prescription opioids (example of the USA opioid epidemic)
• Polydrug use particularly opioids and other psychoactive substances (alcohol, sedatives, benzodiazepines)
• Opiates and smoked crack cocaine resulted from impaired breathing and acute hypertension
• One study found that snowballing heroin and cocaine have a 2.6x greater risk of overdose
• No access to OST (reduces risk of overdose by 90%)
• Reduced tolerance following abstinence (prison release, relapse following treatment or hospital)
Identifying opioid overdose

Combination of three signs and symptoms aka “opioid overdose triad”

**Pinpoint pupils**
**Unconsciousness**
**Respiratory depression**
(<10 breaths per minute or 1 breath every 5 seconds)

They might also have the following:

**Blue lips or fingernails**
**Deep snoring and/or gasping**
**Pale, clammy skin**
Identifying opioid overdose

Combination of three signs and symptoms aka “opioid overdose triad”

Video
Overdose: what to do

SCARE ME

S = stimulation (wakening)
C = call for medical help
A = airway
R = rescue breathing
E = evaluate breathing and response

M = muscular injection of Naloxone
E = evaluate and support
Overdose: recovery position
Overdose: clearing the airway
Overdose: evaluations

- Evaluate and reassess
- Prepare the Naloxone if available
Naloxone: most effective treatment for overdose

- Naloxone Hydrochloride (Naloxone, Prenoxad, Narcan, Evzio) is a medication which can rapidly reverse overdose.
- It is an opioid antagonist—it binds to opioid receptors reversing and blocking the effects of other opioids.
- It can very quickly restore normal breathing to a person whose breathing has stopped due to opioid overdose.
- It comes in injectable form (Naloxone), auto-injectable (Evzio) or prepackaged nasal spray (Narcan).
- Liquid Naloxone HCl for intramuscular injection is the most common and normally comes in vials.
How to administer Naloxone

1. Put on gloves where possible, clean entry place with an alcohol swab
2. Ensure individual is still in recovery position
3. Remove the cap from the vial carefully leaving the rubber plug of the vial intact
4. Insert the (>3cm) needle / syringe through the rubber plug from the upside down vial
5. Pull back on the plunger taking up to 1ml
6. Inject a 1ml dose of Naloxone at a 90 degree angle into a large muscle (upper arm, thigh muscle although outer buttock also possible)
7. Wait 3 minutes, if no reaction, repeat. If there is no response following up to 10ml, it is probably that the emergency is not opioid overdose
Naloxone procedure

- Naloxone will temporarily block the opioids, waking up the individual and making them breathe within 1-5 minutes.
- The effects normally last 60-90 minutes during which time you should keep the individual awake and continue monitoring. Further overdose can set in afterwards thus the steps can be repeated.
- It has no effect except in the presence of opioid drugs.
- It does not get you high. In fact, it can bring on rapid withdrawal. Explain carefully to the individual that they are rapidly withdrawing due to the life-saving administration of procedure and that using opioids immediately may bring about another overdose.
- Support them with symptomatic treatment and make them comfortable.
Post-overdose: recovery counselling

• Following a full recovery from the overdose, he/she should be counseled to prevent further near fatal occurrences

  • Emphasize the risks, signs, symptoms and emergency measures which were undertaken
  • Offer OST and other brief interventions
  • Safe injecting methods and ways to change from injecting to non-injecting behaviour
Overdose management
Operational issues

- Staff working with PWID have an essential role in overdose management and prevention
- OSS / NSP management should develop clear protocols in case overdose in the community is reported and should include:
  1. Who is the contact person in case of overdose
  2. Where can the client receive overdose treatment e.g. Naloxone
  3. What steps should be followed
  4. Should the emergency services be contacted and if so, which ones
Overdose management
Operational issues (continued)

- Every OSS / NSP should collect data on the prevalence and nature of overdose among clients
- To include clients experiencing AND witnessing overdose
- Record any additional factors which make their client(s) more vulnerable to overdose (e.g. changes in heroin purity, release from prison)
- OSS / NSP could appoint ‘Overdose Prevention Champions’
- Ensure clients, family members, peers all trained on overdose prevention e.g. holding regular groups, trainings etc.
- Advocacy, referral and linkage: mechanisms for referral to SAFE medical facilities which do not discriminate drug users and will not report clients. Law enforcement agencies should be sensitized appropriately so clients can access treatment without the fear of arrest and prosecution
Naloxone policy

• Included in the WHO Model List of Essential Medicines for many years
• It will not harm you if non-opioid dependent (it has no effect)
• Limited shelf life: trained responders need to be aware of the expiry date stamped on the box / vial and replace before expiry
• Many countries consider Naloxone by law as part of their first aid response under emergency
• Further advocacy to be done...
Group work

Overdose prevention and management requires standardised responses consistent with evidence-based good practice.

To support overdose prevention and management interventions provided by NGO implementing partners, consider:

- Clinicians and pharmacologists: what clinical guidance needs to be in place and what levels of clinical supervision can be provided? What measures need to be put in place for the procurement of naloxone and its distribution?
- Psychologists: what guidance can be provided to ensure a degree of psychosocial support is provided in cases of extreme overdose?
- Project staff: how can implementing partners be supported to ensure they are providing overdose prevention and management effectively and responsively?