



THE S-O-S INITIATIVE—STOP OVERDOSE SAFELY

UNODC-WHO Multi-site Study on community management of opioid overdose, including emergency naloxone

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The S-O-S Initiative, promoting the expanded community management of opioid overdose, was launched by the United Nations Office on Drugs and Crime (UNODC) and the World Health Organization (WHO) at the Commission on Narcotic Drugs (CND), 2017. In line with the WHO (2014) guidelines on "Community Management of Opioid Overdose", this initiative aims to save lives by promoting access to naloxone and the training of potential first responders (including peers and family members) in overdose management.

United Nations Member States and other stakeholders are encouraged to work towards universal coverage of opioid overdose management strategies including naloxone, as outlined in the following

CONTACT: For further information on the S-O-S Initiative and for countries interested in joining the study with their own resources, please contact: United Nations Office on Drugs and Crime (UNODC) Prevention, Treatment and Rehabilitation Section Drug Prevention and Health Branch Vienna International Centre, P.O. Box 500, 1400 Vienna, Austria Tel:+(43-1) 26060-0, Fax:+(43-1) 26060-5866, www.unodc.org, Contact: treatnet@unodc.org World Health Organization (WHO) Department of Mental Health and Substance Abuse 20 Avenue Appia, CH-1211 Geneva 27, Switzerland Contact: msb@who.int



This initiative aims to support Member States in their efforts to develop policy and legal frameworks for the community management of overdose approach. Moreover, it encourages broad partnerships between national governments, regional organizations, research institutes, civil society, interested funding agencies and other entities to work towards the 90-90-90 targets.

90-90-90 S-0-S INITIATIVE **GLOBAL IMPLEMENTATION TARGETS** 90% of the relevant target groups will have received training in overdose risk and emergency 90% managem of those trained will have been given a supply of emergency naloxone 90% of those who have been given a naloxone supply ill be carrying the naloxone on them or have it close to hand

<figure>

The initiative was developed within the framework of the UNODC-WHO Programme on Drug Dependence Treatment and Care (UNODC project GLOK32), which aims to promote and support, with a particular focus on low- and middle-income countries, evidence-based and ethical treatment policies, strategies and interventions to reduce the health and social burden caused by drug use and dependence.

A number of high-level, international policy documents provide the global policy framework for this initiative, among those: Commission on Narcotic Drugs (CND) resolution 55/7 on "Promoting measures to prevent drug overdose, in particular opioid overdose" (2012)

Under the umbrella of the UNODC-WHO Programme on Drug Dependence Treatment and Care and the S-O-S Initiative, a UNODC-WHO Multi-site Study on community management of opioid overdose, including emergency naloxone, is currently being developed and key elements of the study protocol are presented here.



THE FACTS

FIRST

RESPONDERS

Drug use and drug use disorders are a public health, developmental and security problem both in industrialized and developing countries. Drug disorders are associated with health problems, poverty, violence, criminal behaviour and social exclusion. Prevention and treatment of drug use disorders are essential demand reduction strategies of significant public health importance. Opioid use disorders and drug-related deaths, often from opioid overdose, are of concern in many parts of the world.

EFFECTIVE MANAGEMENT

In 2012, the United Nations Economic and Social Council (ECOSOC) called upon WHO, in collaboration with UNODC to provide advice and guidance, based on scientific evidence, on preventing mortality from drug overdose, in particular opioid overdose.

A further aim of this initiative is to mobilize and support people likely to witness an overdose in the community, with particular focus on people who use drugs, peers, as well as family members. The ultimate goal is to contribute towards reducing deaths due to preventable opioid overdose.

With an estimated 207,400 drug-related deaths in 2014, corresponding to

43.5 deaths per million people aged
15-64, the number of drug-related
deaths worldwide is unacceptably high,
yet has remained relatively stable,
although with significant variations in
some jurisdictions.

As a result, the WHO Community Management of Opioid Overdose Guidelines (2014) were developed, which aim to reduce the number of deaths from opioid overdose by providing the following evidence-based recommendations:

THE UNODC-WHO MULTI-SITE STUDY ON EMERGENCY COMMUNITY MANAGEMENT OF HEROIN AND OPIOID OVERDOSE, INCLUDING EMERGENCY NALOXONE

As part of the S-O-S Initiative and under the leadership of UNODC and WHO, a Multi-site Study and Implementation Protocol is being developed to assess the feasibility of community-based naloxone provision, in line with the S-O-S Initiative targets, and to assess the impact on health-related outcomes. Four project countries, with a high prevalence of opioid use, located in Eastern Europe and Central Asia, have been included in the study.

While the feasibility and effectiveness of naloxone provision for overdose prevention, through communitybased strategies, have been proven mainly in studies from North America, Europe and Australia (McDonald and Strang, 2016), it is not well understood how these results translate to other regions internationally, in particular to low- and middle-income countries. In preparation for the study protocol, assessment visits to project countries were undertaken between June and September 2016. This was followed by an Expert Group Meeting in Vienna (UNODC headquarters) in December 2016 where the draft study protocol was discussed. A Regional Meeting took place in September 2017 in Almaty, Kazakhstan with participants from Kazakhstan, Kyrgyzstan, Tajikistan and Ukraine, and experts from King's College London and the Scottish Drugs Forum, to discuss the first steps towards implementation at country level. The participation in the implementation phase of the UNODC/WHO Multi-site Study is open to additional countries or research groups to join with their own resources.

No.	Recommendation	Strength of recommendation	Quality of evidence
1.	People likely to witness and opioid overdose should have access to naxolone and be instructed in its administration to enable them to use it for the emergency management of suspected opioid overdose.	Strong	Very low
2.	Naloxone is effective when delivered by intravenous, intramuscular, subcutaneous and intranasal routes of administration. Persons using naxolone should select a route of administration based on the formulation available, their skills in administration, the setting and local context.	Conditional	Very low
3.	In suspected opioid overdose, first responders should focus on airway management, assisting ventilation and administering naxolone.	Strong	Very low
4.	After successful resuscitation following the administration of naxolone, the level of consciousness and breathing of the affected person should be closely observed until full recovery has been achieved.	Strong	Very low

Naloxone (N-allylnoroxymorphone) has been used in opioid overdose management for over 40 years, with minimal adverse effects beyond the induction of opioid withdrawal symptoms. It is a semisynthetic competitive opioid antagonist with a high affinity for the µ opioid receptor. It rapidly displaces most other opioids from opioid receptors and, if given soon enough, will reverse all clinical signs of opioid overdose. It can be administered via a variety of routes including intravenously, intramuscularly, subcutaneously and intranasally. It carries no potential for abuse, although high doses may lead to the development of opioid withdrawal symptoms. Although naloxone is on the WHO Model List of Essential Medicines, it is often not available on site when most needed.

GOALS

As part of a broader study, the UNODC/WHO Multi-site Study and Implementation Protocol aims to support participating countries in scaling up access to naloxone and overdose training, focusing efforts on one city.

The study will then seek to assess the effect of this

- What is the feasibility of substantially increasing access to naloxone and training in overdose management to lay people likely to witness an opioid overdose in different community settings?
- This will be answered by means of a process evaluation methodology.

REFERENCES

- 1. Commission on Narcotic Drugs Resolution 55/7, Promoting measures to prevent drug overdose, in particular opioid overdose (2012). Available at: https://www.unodc.org/ documents/commissions/CND/Drug_Resolutions/2010-2019/2012/CND_Res-55-7.pdf
- L. Degenhardt and others, "Mortality among regular or dependent users of heroin and other opioids: A Systematic review and meta-analysis of cohort studies", Addiction, vol. 106, No. 1 (2011), pp. 32-51.
- McDonald, R., and Strang, J., "Are take-home naloxone programmes effective? Systematic review utilizing application of the Bradford Hill criteria", Addiction, 111: 1177–1187. (2016), doi: 10.1111/add.13326.
- 7. United Nations Office on Drugs and Crime/ World Health Organization (UNODC/WHO) Joint Programme on drug dependence treatment and care (2010). Available at: https://www.unodc.org/docs/treatment/unodc_who_programme_brochure_english.pdf
- 8. United Nations Office on Drugs and Crime (UNODC), World Drug Report 2016 (United Nations publication, Sales No. E.16.XI.7), pp.9. Available at: http://www.unodc.org/wdr2016/
- 9. United Nations Office on Drugs and Crime (UNODC), World Drug Report 2012 (United

effort on three levels:



2. What is the effectiveness of training people likely to witness an opioid overdose and providing them with naloxone in order to respond to future witnessed overdoses, i.e. prevent deaths?

This will be answered by means of a cohort study pre/post analysis.

3. OPTIONAL MODULE: What is the impact of scaling up naloxone access and overdose management on the number of deaths in people at high risk of opioid overdose (such as those just released from prison)?

This will be answered using an ecological data matching study or another appropriate design as feasible.

- M. Hickman and others, "Drug-related mortality and fatal overdose risk: pilot cohort study of heroin users recruited from specialist drug treatment sites in London", Journal of Urban Health, vol. 80, No. 2 (2003), pp. 274-287.
- 5. Outcome Document of the 2016 United Nations General Assembly Special Session on the World Drug Problem (2016). Available at: http://www.unodc.org/documents/postungass2016/outcome/V1603301-E.pdf
- 6. United Nations Office on Drugs and Crime/World Health Organization (UNODC/WHO). International Standards for the Treatment of Drug Use Disorders. Vienna: United Nations Office on Drugs and Crime (UNODC): March 2017. Available at: https://www.unodc.org/documents/drug-prevention-and-treatment/ International_Standards_clean_v3_1_20170112_UNODC_VP_JG.pdf

Nations publication, Sales No. E.12.XI.1J, pp.10. Available at: https://www.unodc.org/ documents/data-and-analysis/WDR2012/WDR_2012_web_small.pdf

10. World Health Organization (WHO), Community Management of Opioid Overdose (2013). Available at: http://www.drugs.ie/resourcesfiles/ResearchDocs/Global/WHO_Naloxone.pdf

11. World Health Organization (WHO), Guidelines for the Psychosocially Assisted Pharmacological Treatment of Opioid Dependence (2009). Available at: http://www.who.int/substance_abuse/publications/opioid_dependence_guidelines.pdf

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