Opioid overdose:
Insights from research

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Webinar: Overdose in plain sight

28 August 2028

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Overview

- Recap of opioid overdose
- Opioid overdose prevalence data from research
  - Community-led survey (2019)
  - Biobehavioural survey (2023)
  - Service provider survey (2024)
- Overdose and incarceration
- Conclusions
- Recommendations

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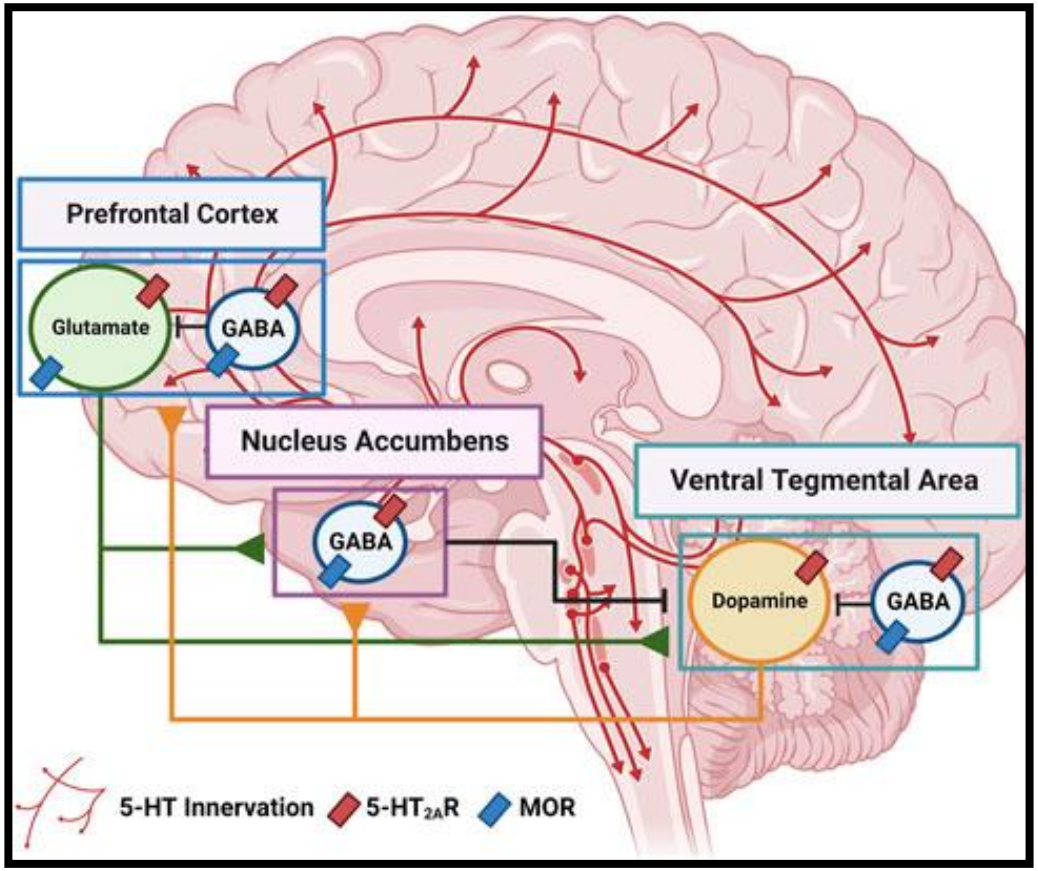
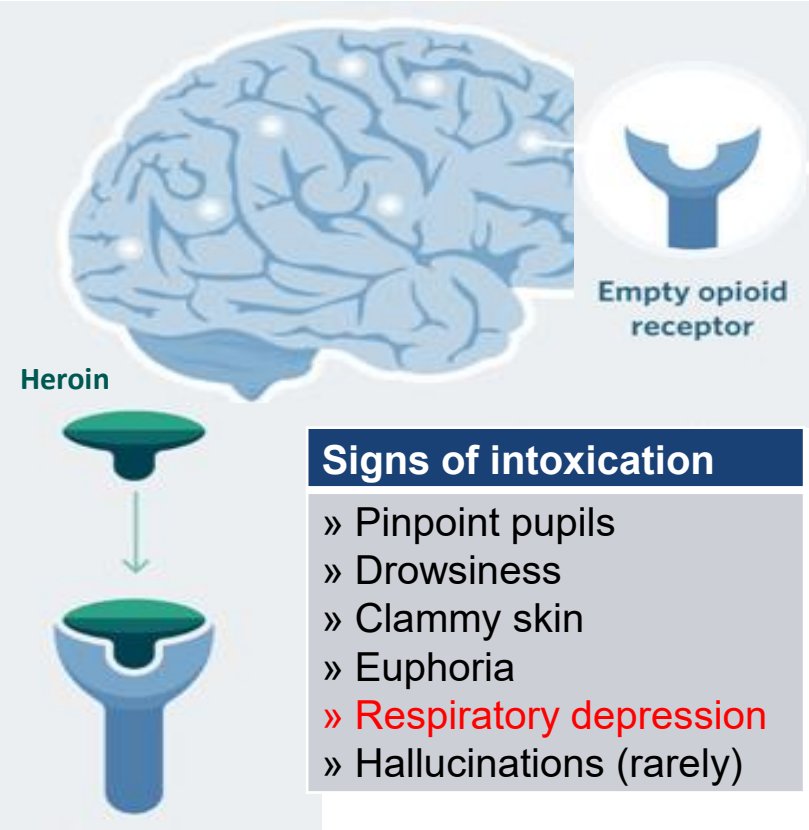
Opioid system

- Naturally-occurring chemicals
- Regulates:
  - Pain
  - Nausea & vomiting
  - Respiration
  - Reward
  - Pleasure
- Receptors in brain & gut



Adapted from Lisa Dannat's slides [Salinsky et al; Frontiers; 2023]

How heroin works



Signs of intoxication

» Pinpoint pupils
» Drowsiness
» Clammy skin
» Euphoria
» Respiratory depression
» Hallucinations (rarely)

People use heroin
Heroin enters the blood
Binds to receptors in the brain

Sense of warmth
Relaxes
Euphoria (high)
Removes pain

The effects last 4 – 8 hours

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Signs of an Opioid Overdose

Blue lips or nails

Dizziness and confusion

Can't be woken up

Choking, gurgling or snoring sounds

Slow, weak or no breathing

Drowsiness or difficulty staying awake

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Risk factors for opioid overdose

- Injecting opioids
- Loss of tolerance
  - Release from correctional setting
  - Discharge from rehab or detox facility
- Combining opioids, benzos, alcohol
- Using alone
- Previous non-fatal overdose
- Potent (synthetic) opioids (e.g., fentanyl)
- Co-occurring mental health disorders

Responding to an overdose

- Assess situation
- Check Airway, Breathing, Circulation (ABC).
- Provide initial respiratory support.
- Give naloxone: intramuscular (i.m.)
- Monitor (24 hrs) after receiving naloxone

Naloxone:
Life saving opioid antidote
Schedule 4 medicine, requires a script
Cheap! R30 per ampoule
No major safety concerns if injected

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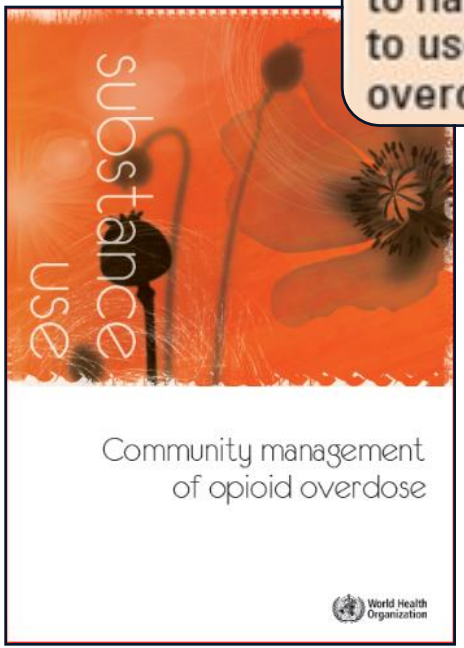
WHO Guidelines (2014)

People likely to witness an opioid overdose should have access to naloxone and be instructed in its administration to enable them to use it for the emergency management of suspected opioid overdose.



People likely to witness an opioid overdose should have access to naloxone and be instructed in its administration to enable them to use it for the emergency management of suspected opioid overdose.

Naloxone is effective when delivered by intravenous, intramuscular, subcutaneous and intranasal routes of administration. Persons using naloxone should select a route of administration based on the formulation available, their skills in administration, the setting and local context.

In suspected opioid overdose, first responders should focus on airway management, assisting ventilation and administering naloxone.

After successful resuscitation following the administration of naloxone, the level of consciousness and breathing of the affected person should be closely observed until full recovery has been achieved.

https://iris.who.int/bitstream/handle/10665/137462/9789241548816_eng.pdf?sequence=1

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Findings from a community-led survey (2019)

- Led by people who use drugs
- Included 66 people who are currently using drugs in three cities
  - Most people (76%) used drugs for ≥ 5 years; mostly heroin
  - Few people (36%) had heard of naloxone

	Durban (n=29)	Cape Town (n=21)	Pretoria (n=16)
Overdosed (last year)	12 (41%)	3 (14%)	10 (63%)
No. times overdosed (last year)	2.5	1.7	1.1
Knew someone who overdosed (last year)	23 (79%)	15 (71%)	12 (75%)

Wilson et al 2022, Harm Reduction J 19, 1-17

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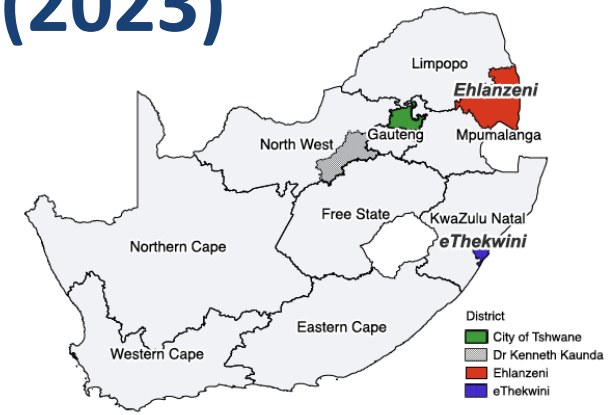
PWID Bio-behavioural survey (2023)

- Eligibility criteria:
  - ≥ 16 years
  - Injected drugs in past 6 months
- 1,259 participants



	MSH (n= 190)		MB (n= 276)		ETK (n= 468)		TSH (n= 325)	
Ever overdose	%	95% CI	%	95% CI	%	95% CI	%	95% CI
	24	13-35	10	6-14	18	15-22	5	1-8

ETK: eThekwini; MSH: Mashishing; MB: Mbombela; PWID: people who inject drugs; TSH: Tshwane

TB HIV Care, 2024, unpublished

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Harm reduction service provider survey (2024)

- Implemented by harm reduction service providers
- 1,037 participants across 8 health districts
  - Male (84%), aged 25 – 35 years (63%), homeless (64%)
  - 76% used opioids (heroin)
  - 27% had experienced an opioid overdose
  - 40% had witnessed / knew someone who had a fatal overdose.
  - Of those reporting overdose:
    - 73% occurred in the street or park
    - 56% during the day

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NACOSA, unpublished, 2024

Service provider survey (2024)(cont.)

Naloxone

81%
Don't know/Unsure

Ever Used 3%

72% Willing to carry

Reported/Witnessed Overdose

Help available

172 Community Members

109 Ambulance

55%
Unsure how to prevent Overdose

45%
Help not available

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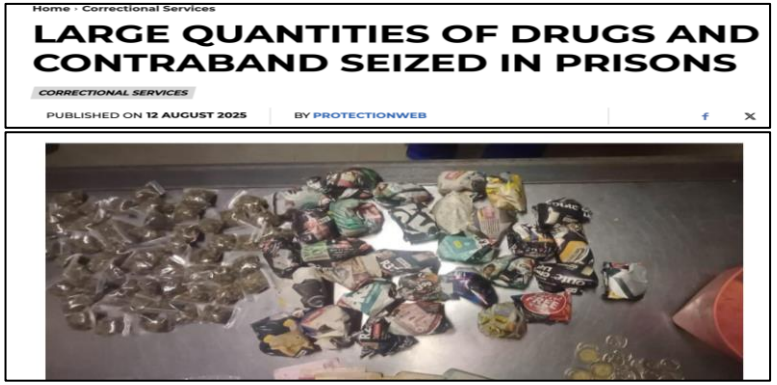
Overdose and incarceration

- Overdose in Correctional Centres
  - Likely to occur
  - Opioid use occurs
  - No opioid agonist therapy
- High risk post-release
  - Loss of opioid tolerance
  - Limited access to opioid agonist therapy
  - No local data



"Others using *nyaope* with same needle … number one its nyaope." Male inmate.

Aurum, HASH Study, 2019,

"…You see young girls doing drugs like *whoonga* … inside prison." Female inmate.

Agboola (2024). Cogent Soc. Sci, 10(1)

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Conclusions & recommendations

- Opioid overdose can lead to death
- Non-fatal overdose can result in disability
- Increased risk of (fatal) overdose:
  - Previous non-fatal overdose
  - Potent opioids
  - Injecting
  - Poly-drug use
- One in four PWID in SA has experienced an overdose
- Overdose deaths are preventable
  - Increased access to OAT
  - Training and awareness
  - Community naloxone distribution

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Thank you

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Partners:

Acknowledgements: MJ Stowe, NACOSA