



DRUGS.ie
Drug and Alcohol Information and Support

*Presentation to
Society of Actuaries
in Ireland - (Opioid)
Drug Overdosing
and Prevention*

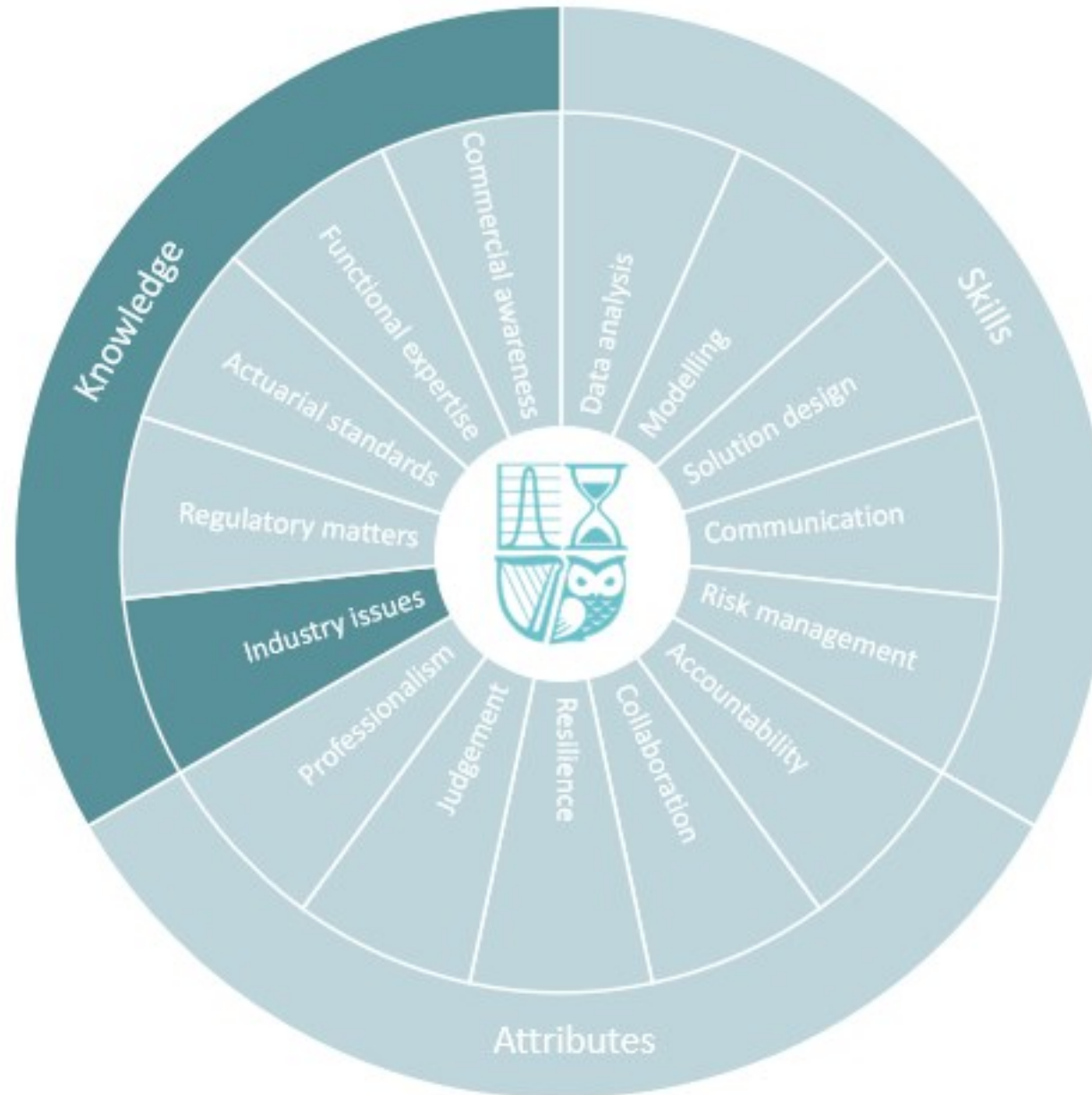


Disclaimer

The views expressed in this presentation are those of the presenter(s) and not necessarily those of their employer(s) (if any) or the Society of Actuaries in Ireland.



Competency Framework Wheel



Purpose of the training

To provide you with the information on;

- What an overdose is: and how to recognise, intervene and respond to an opioid overdose.
- Associated costs pertaining to overdose and drug use.

Today's face to face training will include:

1. What is the
2. What an opioid/ stimulant overdose is
3. How to identify an opioid overdose
4. Overdose risk factors
5. ABC response to an overdose
6. What naloxone is
7. How to use naloxone

What are opioids

1

Opioids are sedatives that depress/sedate our **Central Nervous System (CNS)**

Opioids are used for the treatment of pain.

2

Non-medical use, prolonged use and non-prescribed use can lead to opioid dependence.

3

Opioid overuse can lead to death as it causes difficulties with breathing.

Opioid Overdoses and Naloxone

1

The World Health Organisation states that about 45% of drug users experience non-fatal overdose and about 70% witness drug overdose (including fatal) during their lifetime

2

Naloxone is an opioid antagonist that will temporarily reverse the effects of an opioid overdose if administered in time.

Naloxone has no effect on people who have not taken opioids.

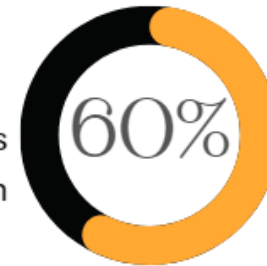
3

Most overdoses are witnessed by a friend, family member or staff; if that person has access to naloxone, they may be able to reverse the effects of opioid overdose while waiting for medical care to arrive.

Ireland Drug-related poisoning (overdose) deaths data in 2020



Gender
60% of Ireland's
overdoses were men



Opioids
70% of deaths
involved opioids



Polydrug Use
80% of poisoning deaths
involved polydrug use

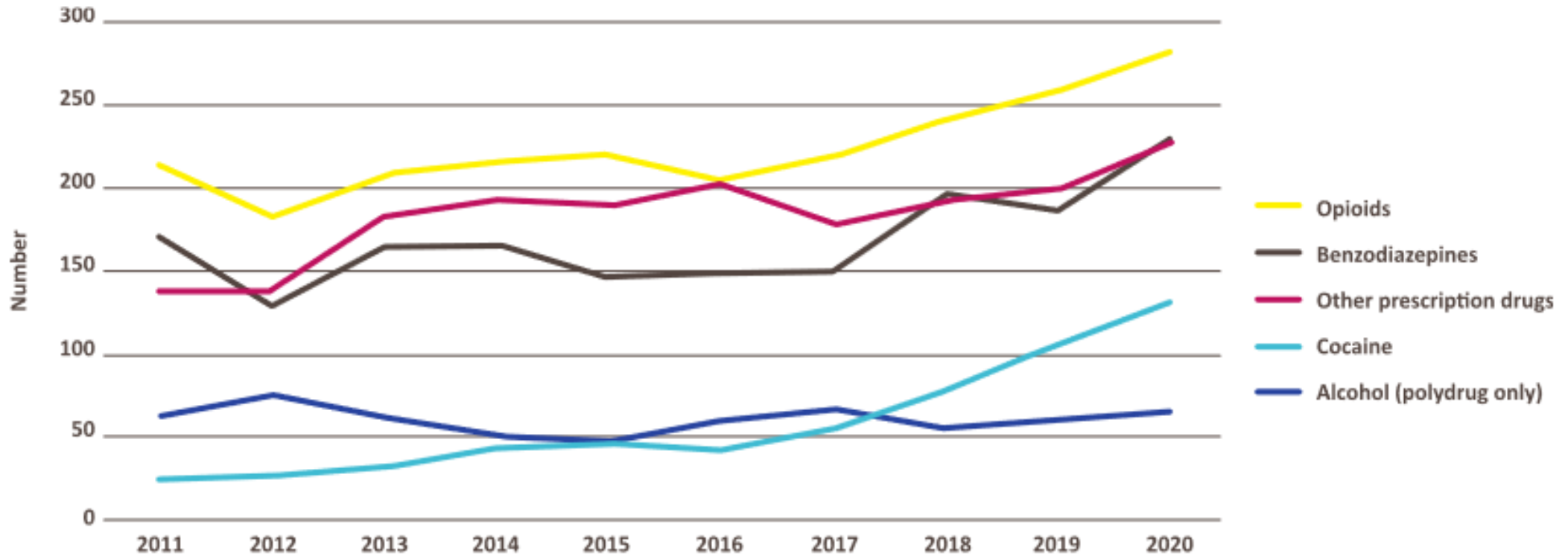


Prescribable Drugs
60% of deaths involved
prescribable drugs.



<https://www.drugsandalcohol.ie/deaths-data/>

Trends in type of drug implicated, 2011 to 2020



Drugs implicated in poisoning deaths



8 in 10

poisoning deaths had **more than one drug** involved



7 in 10

opioids



Almost

6 in 10

benzodiazepines



Almost

6 in 10

other prescription drugs



3 in 10

cocaine



2 in 10

alcohol (as part of a poly drug poisoning)

Where people died and who they were with



75%
Private
dwelling



12%
Homeless
accommodation



9%
Public building
or place



43%
were
alone



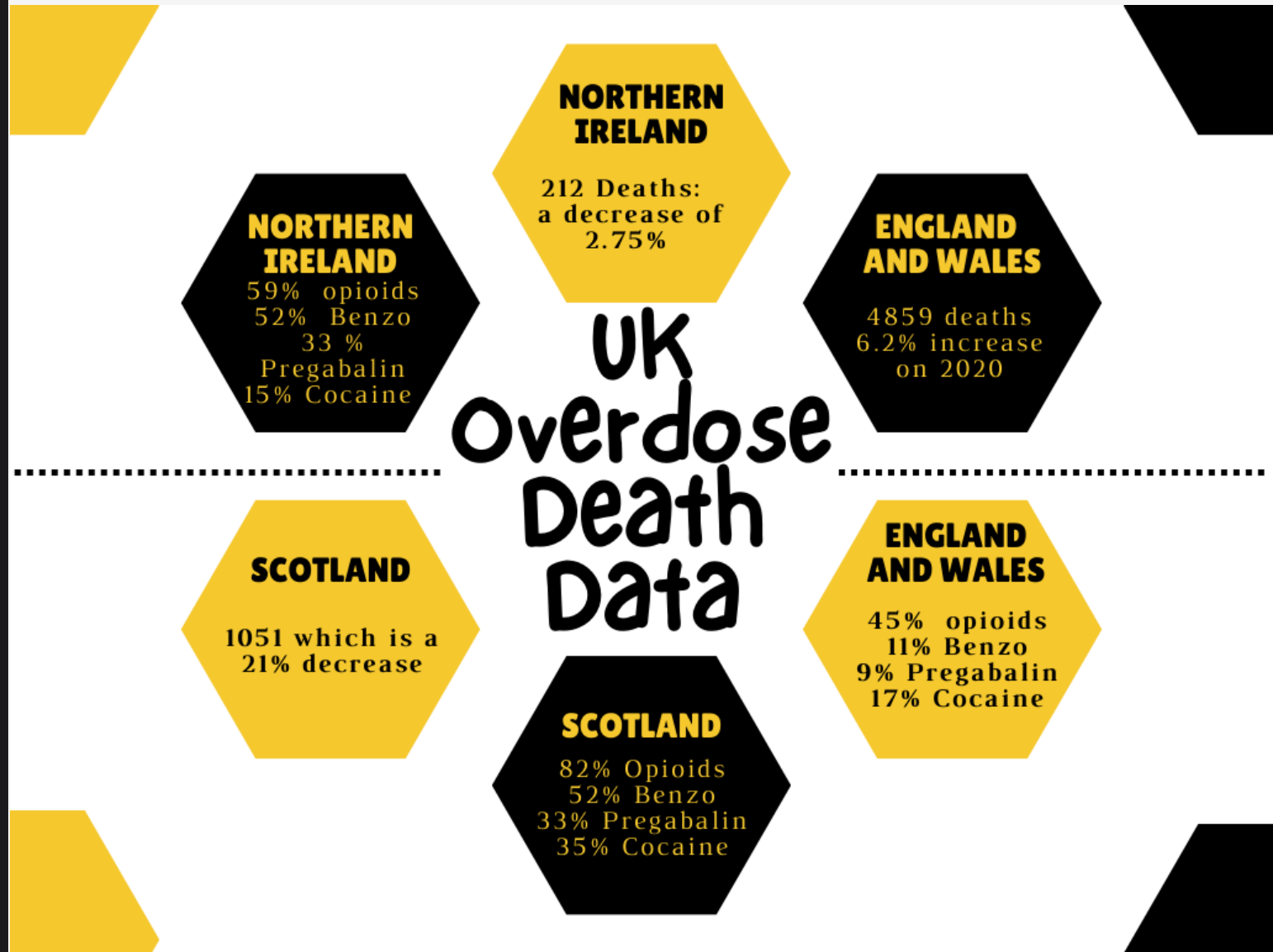
39%
had family/
partner/friends
in the vicinity

UK

Drug-related poisoning (overdose) deaths data

The rates in England and Wales have increased every year since 2012 after remaining relatively stable over the preceding two decades.

Drug-related mortality rates have also been increasing in Scotland, Northern Ireland and across Northern Europe for several years.

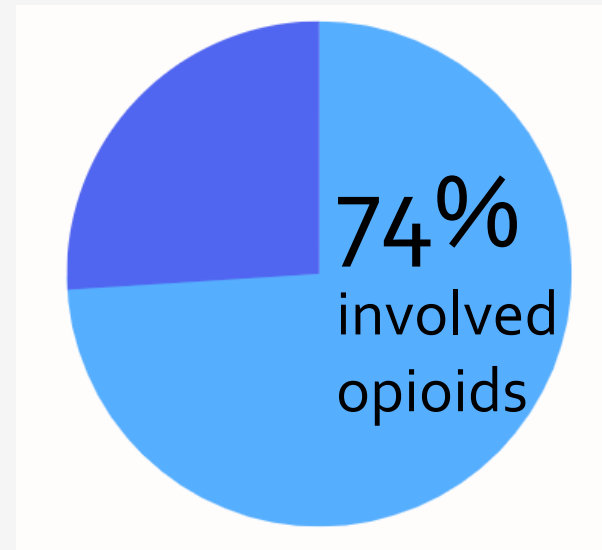




European Monitoring Centre
for Drugs and Drug Addiction

European Drug Report

Trends and Developments



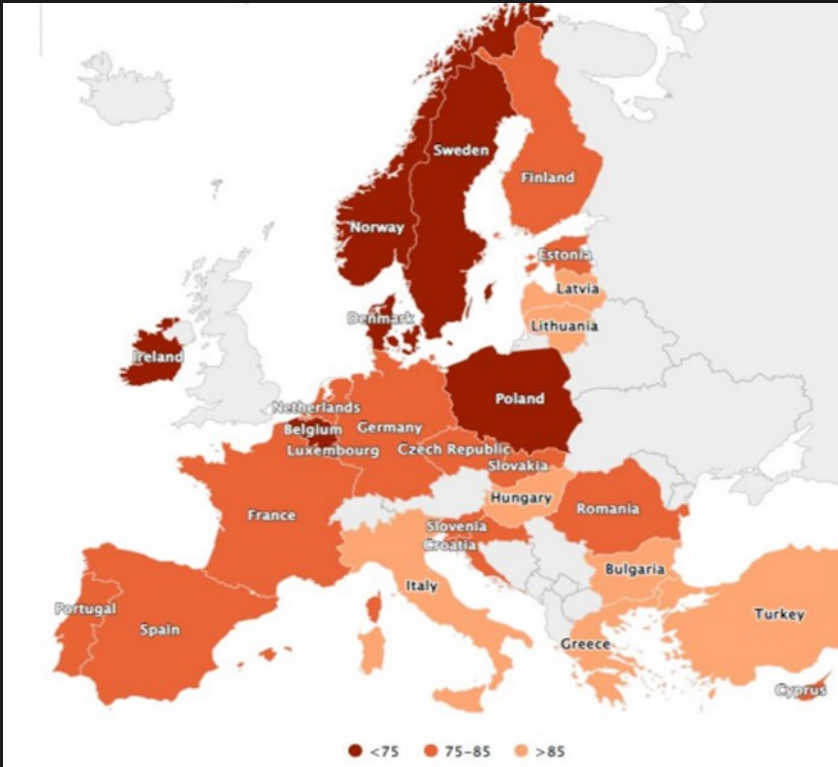
Overall, opioids were involved in 74% of all drug-induced deaths reported in the European Union in 2020.



8 in 10 drug-induced deaths in Europe in 2020 were men
(79 %)

Europe

Drug-related poisoning (overdose) deaths data



Overall 79% of males

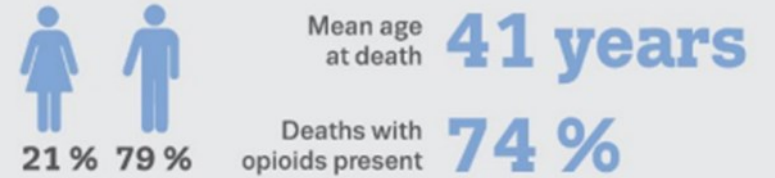
But various national situations

Higher proportion of females in some countries

Where information is available, overdoses in women involve more often

- prescription drugs
- A suicidal intent

→implications for responses



Number of deaths



Overall, opioids were involved in 74% of all drug-induced deaths reported in the European Union in 2020.

<https://www.emcdda.europa.eu/system/files/publications/14644/TDAT22001ENN.pdf>

USA

Drug-related poisoning (overdose) deaths data

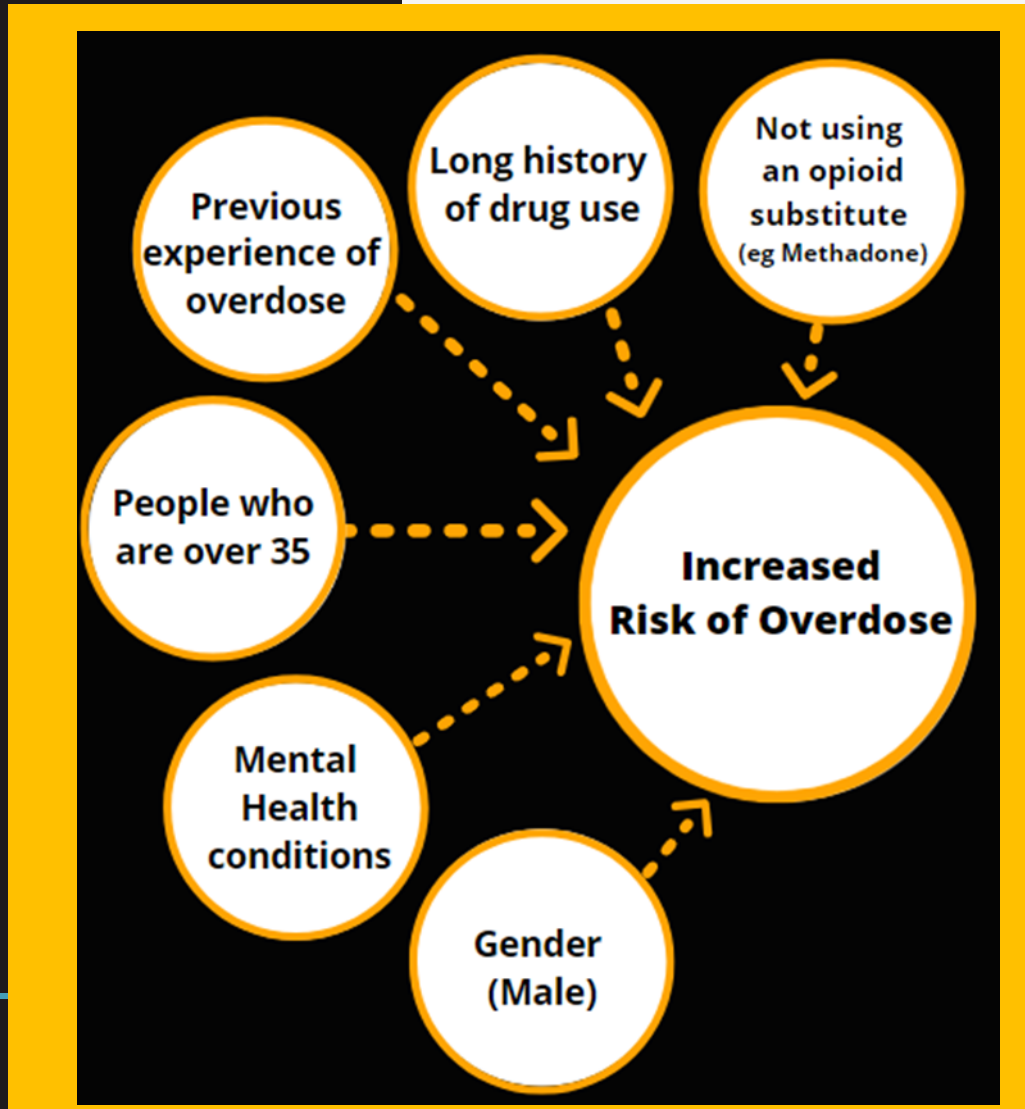
Estimated 107,622 drug overdose deaths in the United States during 2021, an increase of nearly 15% from the 93,655 deaths estimated in 2020. The 2021 increase was half of what it was a year ago, when overdose deaths rose 30% from 2019 to 2020.

- 75% opioids, 66% involved synthetic opioids (fentanyl's)
- Psychostimulants (meth) 31%
- Cocaine 23%

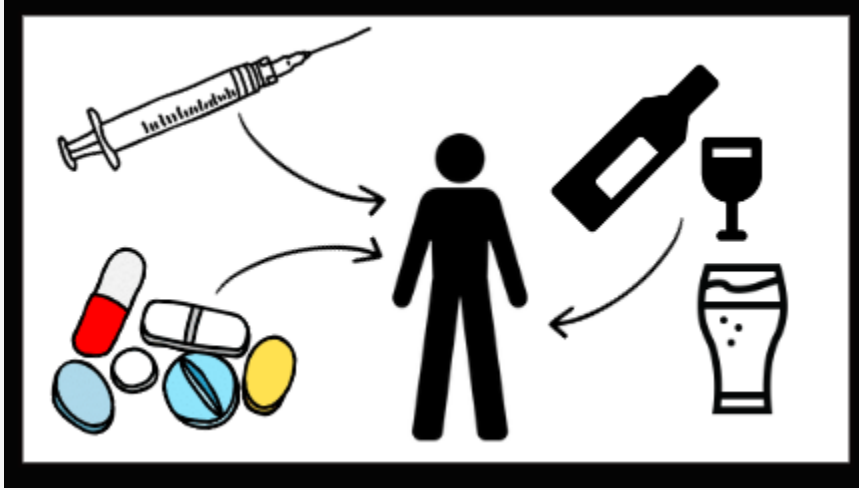
Overdose Risk Factors

The two key risk factors for overdose are:

- Polydrug use
- Reduced tolerance



Polydrug Use



Synthetic Opioids



Natural opioids (such as heroin and morphine) are naturally-occurring substances that are harvested from the poppy seed of certain plant varieties. These substances act on the body's nerve receptors to relieve pain.

Synthetic opioids (such as methadone, fentanyl, isotonitazene and butonitazine) **are substances that act on these same receptors in the body but they have been created in a laboratory.**

Some synthetic opioids are more potent than natural opioids so they can be effective at very small doses which can make it easier to take too much.

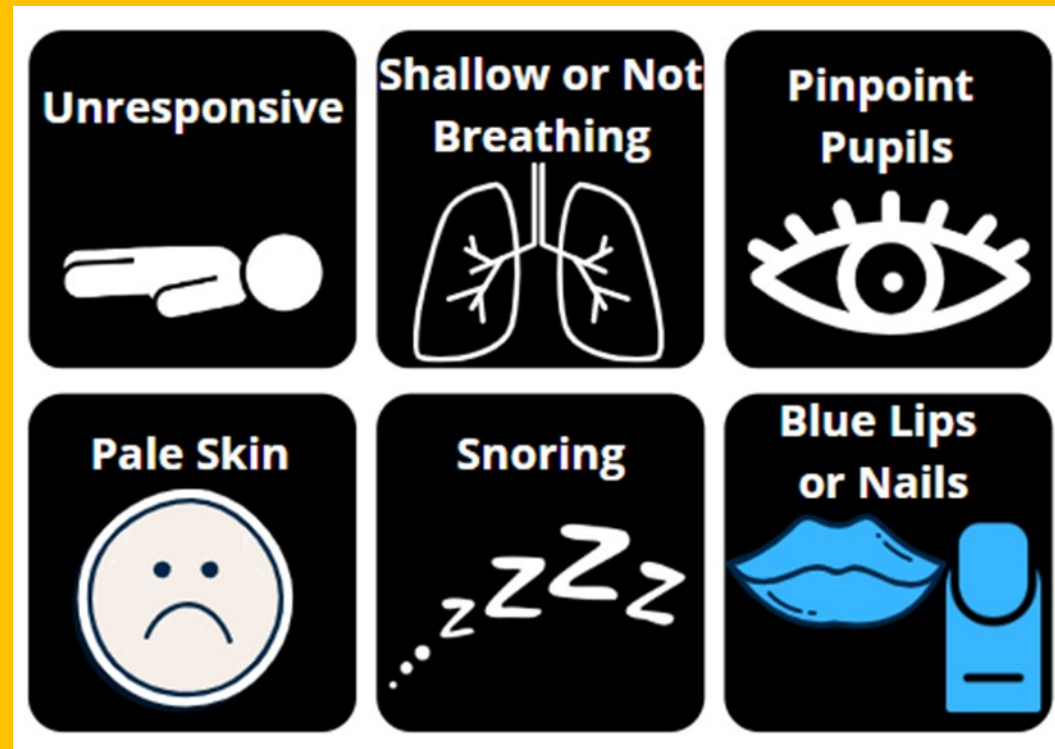
Fentanyl is a potent synthetic opioid that is used as a pain reliever and as an anaesthetic. It is approximately 50-100 times more potent than morphine.

3. How to identify

Observable signs of a Stimulant Overdose



Observable signs of opioid overdose



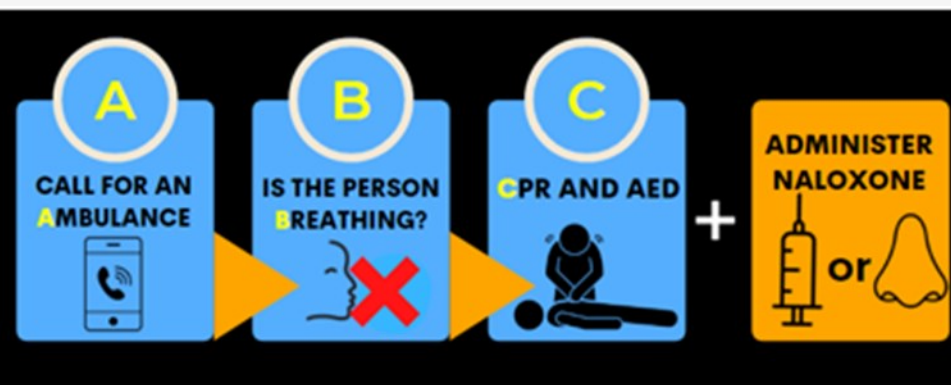
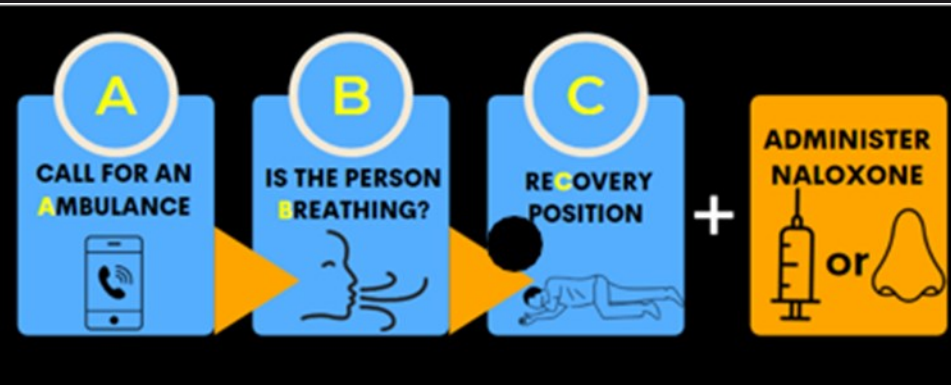
Check for a response by gently shaking the person's shoulders and asking loudly, 'Are you all right?'

6. What is Naloxone?



- Examples of opioids include heroin, morphine, codeine, methadone and fentanyl.
- Naloxone is not a cure but can help along with CPR to keep a person alive until an ambulance arrives.
- Naloxone is short acting and the effects of Naloxone can last between 20 and 90 minutes depending on what opioids the individual has used.
- Naloxone only temporarily reverses the effects of overdose and therefore there is a risk that the person can return back into an overdose especially if the duration of the opioid is long acting for example Methadone
- Naloxone has virtually no effect in people who have not taken opioids
- Naloxone itself has no psychoactive properties and “no intoxicating effects or misuse benefits

What to do:



How to use Naloxone:



Peel off the back of the Nyxoid container. Remove the nasal spray and place it within easy reach.



Lay the person on their back. Support the back of the neck, and let the head tilt back. Clear away anything you see blocking their nose.



Hold the spray as shown — first two fingers either side of the nozzle, thumb ready to push the plunger. **Don't press yet**

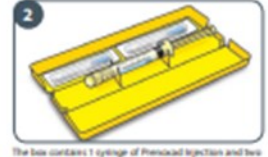
! Don't press to prime or test before use.



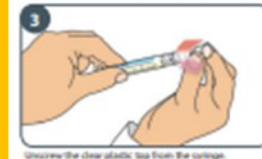
Gently insert the spray nozzle into one nostril. Press firmly on the plunger until it clicks and gives the dose. Remove the nozzle from the nostril. If possible, note which nostril you used.



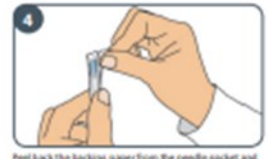
Remove the clear film wrapping by pulling the tear strip on the side of the box. Tilt the outer plastic box as shown to break the tamper evident seal and open.



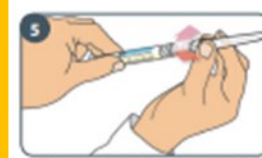
The box contains 1 syringe of Prevalox injection and two needles.



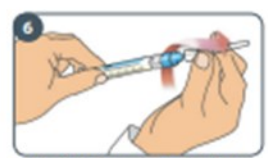
Unscrew the clear plastic top from the syringe.



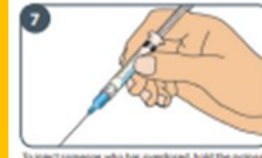
Peel back the backing paper from the needle packet and remove the needle in its protective sheath.



With the needle still in its sheath, screw the clear plastic top on to the syringe.



Gently back the needle sheath and remove it from the syringe.



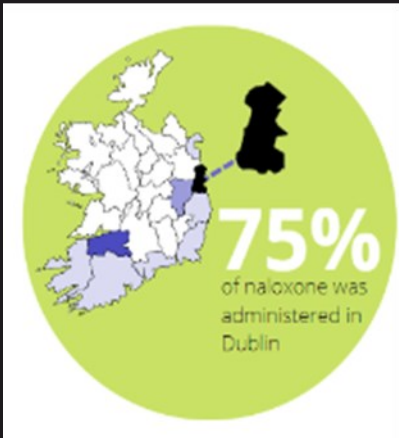
To inject someone who has overdosed, hold the syringe like a pen.



Insert the needle into the patient's outer thigh or upper arm, through clothing if necessary and inject one dose (0.6ml). Withdraw the needle and syringe after each dose.

Evidence

increased availability of training and the provision of naloxone in the community has potential to reduce drug-related deaths
continued investment will benefit individuals and their families



HSE
HSE Social Inclusion

NALOXONE ADMINISTRATION BY ADDICTION & HOMELESS SERVICE PROVIDERS IN IRELAND: 2018-2020

DRUG INSIGHTS REPORT 2
Dr David Evans
Tim Bingham
Sarah Hamza
Prof Eamon Keenan

National Social Inclusion Office, 2022

The report cover is dark blue with a yellow border. It features the HSE logo and 'HSE Social Inclusion' logo in the top left and right corners. The title is centered in white. The authors' names are listed below the title. The bottom right corner includes the publisher's name. A decorative graphic of white curved lines is on the left side.

Evidence

For every €1 spent on the programme there was a return of €2.36 in terms of gained productivity due to death prevention.



670,736

estimated productivity saving from 2018-2020,
when supply and administration costs are deducted

Cost-Effectiveness of Take-Home Naloxone for the Prevention of Overdose Fatalities among Heroin 2018

METHOD

Markov model
with an
integrated
decision tree

LIMITATIONS

30% reach
IM Naloxone
valuated over a
lifetime
discounted at
3.5%

RESULTS

Decrease of
6.6% in
overdose deaths

Evaluation of UK Data

CONCLUSION

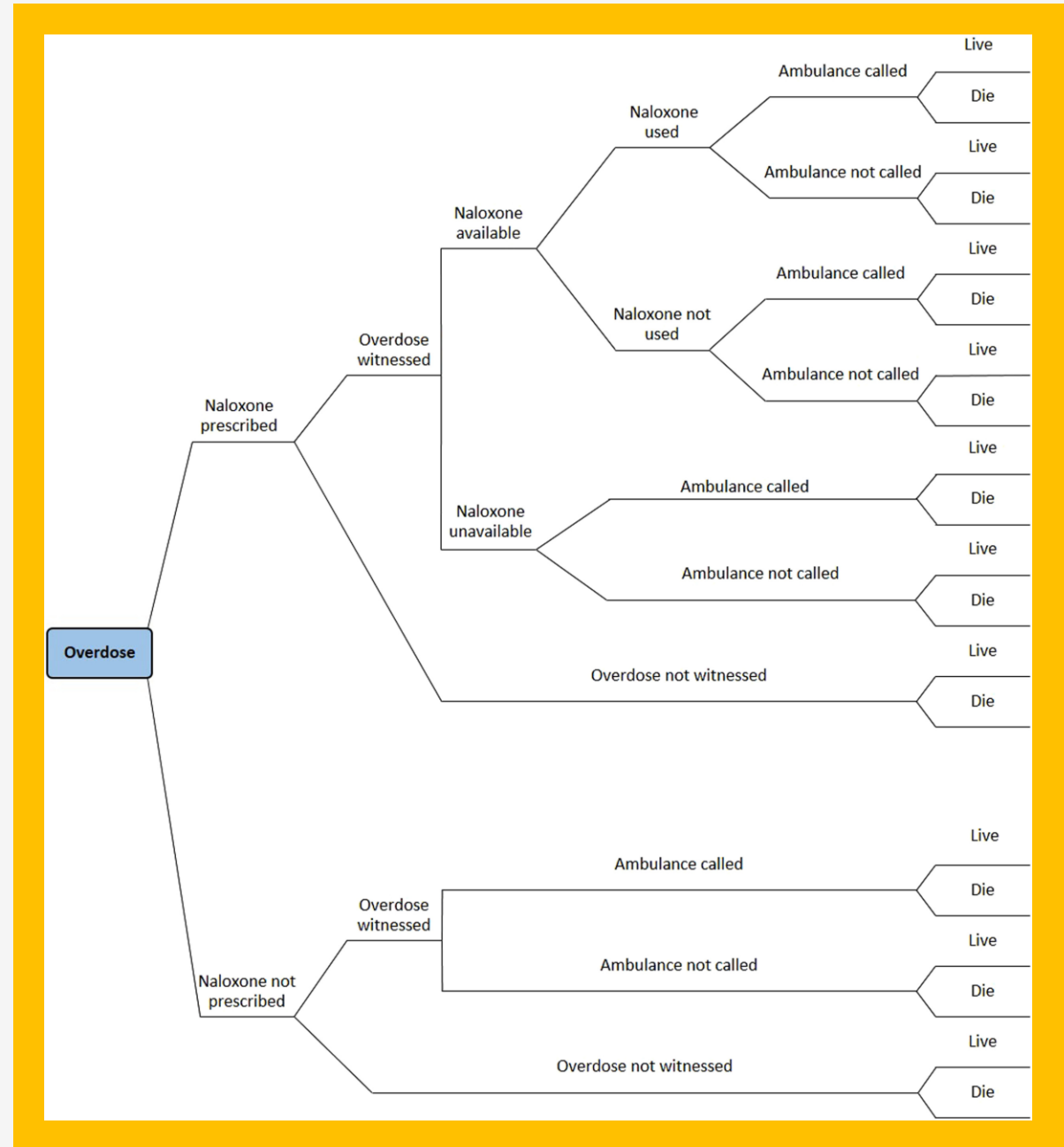
In a population of
200,000 PWUD
equates to the
prevention of 2,500
premature deaths at
an incremental cost
per quality-adjusted
life year (QALY)
gained of £899

Evidence

For every €1 spent on the programme there was a return of €2.36 in terms of gained productivity due to death prevention.

€ **670,736**

estimated productivity saving from 2018-2020, when supply and administration costs are deducted



Evidence

Drug related deaths totalled more than 93 000 in 2020, a record that reflected the biggest overall increase in US history. The *New York Times* calculated that drug overdoses were responsible for more than 3.5 million years of life lost in 2020.

In 2019 Annual Hospital Costs for Opioid Overdose Patients Approaches \$2 Billion

<https://www.hfma.org/accounting-and-financial-reporting/cost-of-care/63299/>

The average cost for an overdose patient who was treated and released totalled \$504, but the average cost rose to \$11,731 for those who were treated and admitted to a hospital and \$20,500 for those who required ICU care

Fatal and Nonfatal Opioid Use Disorder	
Per Capita Total Costs	United States \$3,134
Total Costs	\$1.02 T

Opioid Use Disorder (Nonfatal)	
Opioid Use Disorder Prevalence	United States 2,129,000
Total OUD Costs	\$470.98 B

Fatal Overdose Mortality	
Fatal Overdose Deaths	United States 47,600
Total Fatal Overdose Costs	\$549.69 B

\$: 2017 Dollars; M: Millions; B: Billions; FO: Fatal Overdose; OUD: Opioid Use Disorder

<https://wisqars.cdc.gov/opioid/>

Evidence

For every €1 spent on the programme there was a return of €2.36 in terms of gained productivity due to death prevention.

€ **670,736**

estimated productivity saving from 2018-2020,
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Spending Review 2021 –
Focused Policy Assessment of Reducing
Harm, Supporting Recovery: An analysis of
expenditure and performance in the area of
drug and alcohol misuse.

https://www.drugsandalcohol.ie/34729/1/Government_spending_review_2021_Reducing_harm_supporting_recovery.pdf

It finds that about €87 million per year is spent on the “unlabelled” costs associated with hospitals, prisons and the criminal justice system in dealing with the medical and legal consequences of drug use. Meanwhile, productivity losses associated with drug use are estimated to be in the region of €61 million

Evidence

One-in-fourteen (7%) people have used an illegal drug in the last year. Cocaine use has increased across all age groups.

https://www.drugsandalcohol.ie/34287/1/HRB_Irish_National_Drug_and_Alcohol_Survey_2019_20.pdf



It cost 7 times more to imprison an individual for their disease than to treat them for it.

70% of people come into prison with an addiction or substance abuse problem

https://www.drugsandalcohol.ie/25265/1/Prisons%20workbook_2022.pdf

2021, the average cost of an "available, staffed prison space" was €80,335 <https://www.iprt.ie/prison-facts-2/>

Overdose statistics Ireland and Beyond:

OAT

Needle Syringe Programmes

Drug Monitoring-

- Syringe analysis: >90% Heroin, re-emergency of cocaine injecting
- EMCDDA European Web survey: (93 %) reported using cannabis during the previous 12 months, 35 % used MDMA/ecstasy, 35 % cocaine and 28 % amphetamine
- Real Time checking

Across Europe, rates of deaths involving heroin or morphine have been increasing, while the number of new heroin and morphine users has fallen

Opioids implicated in the significant number of overdose: the need for overdose prevention and increase availability of THN

Prevalence of stimulant use increasing in Ireland and overdose associated



HE

Irish Syringe Analysis Pilot Project

The identification of current injecting trends in the Dublin and Midland Region through the application of syringe analysis methodology

Sin ad McNamara, Nicki Killeen, Siobhan Stokes and Eamon Keenan

MOI
Minister of Justice
Department of Justice

MDMA

Mybrand purple skull identified as **high strength MDMA** at HSE drug monitoring lab at Electric Picnic, which is a cause for concern.

Contents are approximately **two times the average adult dose.**

Please exercise caution and remember it's safer not to use drugs at all.



HSE Caution: 3-CMC found in white crystals



We have identified 3-CMC a 'synthetic cathinone' substance as large white crystals in our lab onsite at Electric Picnic.

What is 3-CMC?

3-CMC is a potent stimulant-type drug.

We are aware of similar 'cathinone' type substances being found in the UK this summer sold as MDMA pills, powders and crystals.

You can never be fully sure of the contents of pills, powders or crystals.



Don't be afraid to get medical help if you or a friend feels unwell or suicidal after using drugs.

These substances can produce strong stimulant effects which can make people feel unwell.

They can lead to prolonged stimulation, insomnia, anxiety, paranoia, suicidal feelings, psychosis with negative come downs and after effects. They can also cause cravings which could lead to overconsumption/overdose.

It's safer not to use at all, if you do, get information to help you reduce the harms on [Drugs.ie](https://www.drugs.ie)



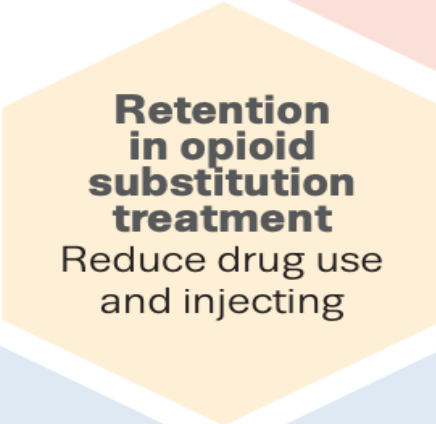
#ReduceTheHarm

DRUGS.ie

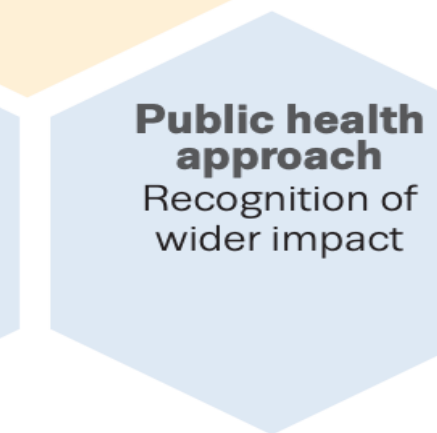
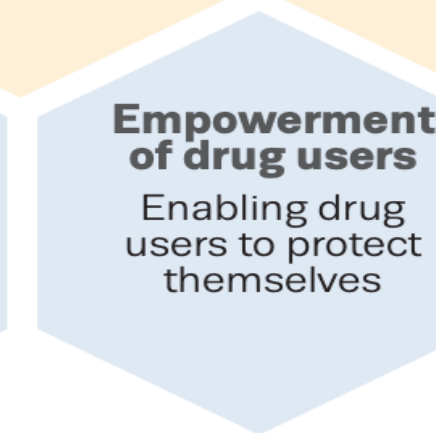
Reducing fatal outcome of overdose



Reducing risk of overdose



Reducing vulnerability



Source: EMCDDA, 2017.

31 AUGUST



An Roinn Sláinte
Department of Health



Any Questions?



A yellow-bordered graphic for a naloxone campaign. It features a black background with a large orange circular arrow pointing clockwise. Inside the arrow, the text 'NALOXONE SAVES LIVES' is written in white, bold, sans-serif font. Below this is the HSE logo. At the bottom, the text 'DRUGS.ie' is written in white, bold, sans-serif font, with 'Drug and Alcohol Information and Support' in a smaller font below it. To the right of the graphic is a white square containing a black outline icon of a hand holding a syringe. Below this icon, the contact information for Jenny Smyth is listed: 'Jenny Smyth', 'Naloxone Project Lead', '087 4516005', and 'jennifer.smyth2@hse.ie'.

Jenny Smyth
Naloxone Project Lead
087 4516005
jennifer.smyth2@hse.ie



**NALOXONE
SAVES LIVES**

HE

DRUGS.ie
Drug and Alcohol Information and Support

Thank
You