# NPS: Synthetic Opioids

#### Infermiere/Coordinatore CPA LA CELESTE IRCCS FATEBENEFRATELLI Todaro Antonino









United Nations Office on Drugs and Crime



### WORLD © DRUG O REPORT ~



UNODC United Nations Office on Drugs and Crime

### Global number of users



### WORLD © DRUG O REPORT ~



UNODC United Nations Office on Drugs and Crime



WORLD **© DRUG** O REPORT **©** 



United Nations Office on Drugs and Crime





74 SYNTHETIC OPIOIDS REPORTED **TO UNODC** EARLY WARNING **ADVISORY** ву 2019

131%



UNODC United Nations Office on Drugs and Crime

# GLOBAL SMART UPDATE









#### Deaths in 2016...

#### 63,632



https://www.opioids.gov/



#### Stopping the Flow of Illicit Opioids

Illicit opioids – including fentanyl – have flooded into our country **through ports, shipments, and border crossings**. The Trump Administration is working to increase the seizure of illicit opioids and reduce the illicit drug supply.





2,975

https://www.opioids.gov/







\*Includes prescription analgesics and heroin. Source: National Center for Health Statistics/CDC, National Vital Statistics Report, Final death data for each calendar year (June 2014)

Citation for Vietnam War Deaths; U.S. National Archives. Statistical Information about Fatal Casualities of the Vietnam War. As of April 29, 2008.

https://www.opioidinitiative.org/

### The Opioid Epidemic in the U.S.

#### In 2015...



#### 12.5 million

People misused prescription opioids<sup>1</sup>



#### 2.1 million

People misused prescription opioids for the first time<sup>1</sup>



2 million People had prescription opioid use disorder<sup>1</sup>



828,000 People used heroin<sup>1</sup>





**33,091** People died from overdosing on opioids<sup>2</sup>



**15,281** Deaths attributed to overdosing on commonly prescribed opioids<sup>2,3</sup>



**9,580** Deaths attributed to overdosing on synthetic opioids<sup>2,5</sup>



12,989 Deaths attributed to overdosing on heroin<sup>2,4</sup>



Sources: 1 2015 National Survey on Drug Use and Health (SAMHSA), 2 MMWR, 2016; 65(50-51);1445–1452 (CDC), 3 Prescription Overdose Data (CDC), 4 Heroin Overdose Data (CDC), 5 Synthetic Opioid Data (CDC), 6 The Economic Burden of Prescription Opioid Overdose, Abuse, and Dependence in the United States, 2013. Florence CS, Zhou C, Luo F, Xu L. Med Care. 2016 Oct;54(10):901-6

https://www.samhsa.gov/

# Opioids

- The illicit market for opioids includes (fda)
- <u>internationally controlled substances</u> (e.g., heroin)
- prescription medicines that could be diverted from the legal market or produced as counterfeit medicines (fake products manufactured illegally in clandestine laboratories), which may contain fentanyl and fentanyl analogues

**B.Lovrecic** et. Al, Non-Medical Use of Novel Synthetic Opioids: A New Challenge to Public Health, 2019

# Opioids

The pills and powders containing fentanyl and analogues pose a threat to public health because of the variable quantity and potency of the active components (e.g., fentanyl may be 50-100 times more potent than morphine, carfentanil may be 10,000 times more potent than morphine

> **B.Lovrecic et Al.**, Non-Medical Use of Novel Synthetic Opioids: A New Challenge to Public Health, 2019

Review article

#### New synthetic opioids: Part of a new addiction landscape

Laurent Karila<sup>a,\*</sup>, Maude Marillier<sup>b</sup>, Boris Chaumette<sup>c</sup>, Joel Billieux<sup>8</sup>, Nicolas Franchitto<sup>d,e</sup>, Amine Benyamina<sup>f</sup>



- Countries in blue: Main manufacturers
- Countries in red: Opioid crisis

Opioids

- Countries in yellow: Public health issue
- Not colored: No data available



Neuroscience and Biobehavioral Reviews 106 (2019) 133-140

Contents lists available at ScienceDirect

Neuroscience and Biobehavioral Reviews

journal homepage: www.elsevier.com/locate/neubiorev





**46 people/die** every day from overdoses involving prescription opioids.

In 2017, prescription opioids continue to contribute to the epidemic in the U.S., they were involved in more than 35% of all opioid overdose deaths

The most common drugs involved in prescription opioid overdose deaths include:

Methadone

Oxycodone (such as OxyContin®)

Hydrocodone (such as Vicodin®)<sup>2</sup>



The rate of overdose deaths from prescription opioids among men

was 6.1 per 100,000 people and the rate among women was 4.2 in

2017





### Fentanyl

- A synthetic (man-made) opioid 50x more potent than heroin and 100x more potent than morphine.
- Prescribed in the form of transdermal patches, tablets, lozenges, or nasal sprays.
- Can also be illegally made (illicitly manufactured fentanyl) and mixed into other drugs like heroin or cocaine.



A generic fentanyl transdermal patch

https://www.thegreatcoursesdail y.com/the-opioid-crisisfentanyl-synthetic-opioids/



# GUIDELINE FOR PRESCRIBING OPIOIDS FOR CHRONIC PAIN



#### CLINICAL REMINDERS

- Opioids are not first-line or routine therapy for chronic pain
- Establish and measure goals for pain and function
- Discuss benefits and risks and availability of nonopioid therapies with patient



#### Medication-Assisted Treatment for Opioid Use Disorders (MAT)

<u>Combined with behavioral therapy, effective MAT programs for</u> <u>opioid addiction decrease overdose</u> deaths, result in cost savings, reduce transmissions of HIV and hepatitis C related to IV drug use, and mitigate associated criminal activity(NIH, 2016).

While the goal of MAT is for all patients to become drug-free, some people with severe addictions may need to continue MAT indefinitely.

American Nurses Association8515 Georgia Avenue, Suite 400Silver Spring, MD 20910www.nursingworld.org

#### HHS RESPONSE TO THE OPIOID CRISIS











improving access to treatment and recovery services

promoting use of overdosereversing drugs

strengthening our understanding of the epidemic through better public health surveillance

providing support for cutting-edge research on pain and addiction

advancing better practices for pain management



#### 2016 Total Drug Overdose Deaths



Deaths are not mutually exclusive. Deaths involving more than one drug or drug class are counted multiple times.

# Illecit Opioids

Number of different fentanils detected by country reported to the EU Early Warning System, 2012-17



# Illecit Opioids





**European Monitoring Centre** for Drugs and Drug Addiction



European Monitoring Centre for Drugs and Drug Addiction

#### Fentanyl is a narcotic analgesic with a potency at least 80

#### times that of morphine.

Fentanyl and some of its derivatives (alfentanil, sufentanil,

remifentanil and carfentanil) are used as analgesics and

anaesthetics in human and veterinary medicine



Report from an EMCDDA expert meeting 9 to 10 October 2012

#### Number of Reported Law Enforcement Encounters Testing Positive for Fentanyl in the US: 2010 - 2015





- Fentanyl is a narcotic analgesic acting predominately at the µ-opiate receptor.
- Drowiness and euphoria
- Nausea, dizziness, vomiting, fatigue, headache, constipation, anaemia and peripheral oedema.



European Monitoring Centre for Drugs and Drug Addiction

#### FENTANYL IN EUROPE EMCDDA TRENDSPOTTER STUDY

Report from an EMCDDA expert meeting 9 to 10 October 2012





European Monitoring Centre for Drugs and Drug Addiction

- Characteristic withdrawal symptoms (sweating, anxiety, diarrhoea, bone pain, abdominal cramps, shivers or 'goose flesh') occur when use is stopped.
- Serious interactions can occur when fentanyls are mixed with heroin, cocaine, alcohol and other CNS depressants e.g. benzodiazepines



#### FENTANYL IN EUROPE EMCDDA TRENDSPOTTER STUDY

Report from an EMCDDA expert meeting 9 to 10 October 2012

#### BRAND NAMES

- "China White"
- "Synthetic Heroin"
- "China Girl"
- "Chinatown",
- "Tango & Cash"
- "TNT"
- "Drop Dead",
- "Flatline"
- "Lethal Injection" —
- "Poison".
- "Apache
- "Dance Fever",
- "Great Bear"
- "Perc-o-Pops"
- "Lollipops".





#### Review Non-Medical Use of Novel Synthetic Opioids: A New Challenge to Public Health

Barbara Lovrecic<sup>1</sup>, Mercedes Lovrecic<sup>1,2</sup>, Branko Gabrovec<sup>1</sup>, Marco Carli<sup>3</sup>, Matteo Pacini<sup>4</sup>, Angelo G. I. Maremmani 5,6 and Icro Maremmani 4,6,7,\*

MDPI

Fentanyl toxicity	Fentanyl severe toxicity	Differences between heroin and fentanyl overdoses
<ul> <li>Miosis (pinpoint pupils)</li> <li>Nausea, vomiting</li> <li>Anxiety, agitation</li> <li>Euphoria, dysphoria</li> <li>Depression</li> <li>Paranoia</li> <li>Hallucinations</li> </ul>	<ul> <li>Respiratory and central nervous system depression</li> <li>Decreased consciousness</li> <li>Apnoea</li> <li>Can lead to deep coma, convulsions and respiratory arrest.</li> <li>Sudden-onset chest wall rigidity may be associated with increased risk of mortality</li> </ul>	<ul> <li>In comparison with heroin, intoxication with fentanyl and analogues presents with:</li> <li>increased risk of overdose</li> <li>more rapid onset of overdose</li> <li>more rapid progression of signs and symptoms</li> </ul>
		The misuse of synthetic opioids: harms and clinical management of fentanyl, fentanyl analogues

of fentanyl, fentanyl analogues and other novel synthetic opioids

Information for clinicians

Dima Abdulrahim and Owen Bowden-Jones on behalf of the NEPTUNE group
## Fentanyl





DEA illustration of 2 milligrams of fentanyl, a lethal dose in most people

25 2

LIBERTY

## Carfentanil

#### 500 a 1000 vs Morphine

Carfentanil was synthesized by a team of chemists, including Paul Janssen, at Janssen Pharmaceuticals in 1974. Its synthesis was firstly described in the literature by Van Bever et al.

Is a fentanyl analogue that is approved for **veterinary** use as a tranquilizing agent for sedation, as a hypnotic, and as anesthesia of animals such as **elephants**, **gazelles**, **goats**, **horses**, **pigs**, **polar bears**, **rhinoceroses**, **seals**, **and wolves**.

#### Fentanyls continue to replace heroin in the drug arena: the cases of ocfentanil and carfentanil

Nektaria Misailidi $^1\cdot$ Ioannis Papoutsis $^1\cdot$ Panagiota Nikolaou $^1\cdot$ Artemisia Dona $^1\cdot$ Chara Spiliopoulou $^1\cdot$ Sotiris Athanaselis $^1$ 

## Carfentanil

#### 500 a 1000 vs Morphine

In October 2016, Associated Press news reported finding 12 Chinese laboratories willing to export carfentanil to the United States, Canada, the United Kingdom, France, Germany, Belgium, and Australia for the price of US\$2750/kg.

The drug can be also found easily online, on the darknet, through related websites in which it is often labeled as a "research chemical" and sold through direct mail shipments in prices from US\$800 to 2500 per gram.

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## Carfentanil 500 a 1000 vs Morphine

The first fatal cases possibly related to **carfentanil** were reported in Russia, in 2002, when more than **120 people died in the Moscow Dubrovka Theater**, in which they were held as hostages by Chechen rebels. During a rescue attempt, the Russian military forces released a "poison" gas though the ventilation system in order to subdue the rebels. Hundreds of hostages were submitted to hospitals suffering from "sleeping gas" poisoning.

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## Carfentanil 500 a 1000 vs Morphine

Later, in 2013, a series of carfentanil-related deaths was reported in Latvia, and a related alert was issued by the Latvian National Focal Point.

In the United States, the first reported carfentanil-related intoxication took place in 2010 in Chicago. It was an unintentional intoxication where a veterinarian was acci dentally exposed to carfentanil.

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## Carfentanil, 500 a 1000 vs Morphine

#### Carfentanil seized in Norway



Note: Foil packet containing a ziplock bag labelled 'C.50' that contained carfentanil as a white powder. It was bought on a darknet market and recovered from a scene of death in Norway in 2017. Image kindly provided by Norwegian National Criminal Investigation Service (Kripos). Copyright: Norwegian National Criminal Investigation Service (Kripos).

## Ocfentanyl

Ocfentanil is a synthetic analogue of fentanyl

According to the Early Warning Advisory (EWA) of the United Nations Office of Drugs and Crime (UNODC), ocfentanil is among the 14 fentanyl analogues that have been reported in Europe within 2012–2016 and it is among the 15 different synthetic opioids that have been reported to EMCDDA during 2009–2015



Fentanyls continue to replace heroin in the drug arena: the cases of ocfentanil and carfentanil

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## Octofentanyl

It has been associated with some intoxication cases and deaths mostly in Europe:

Finland, France, Ireland, Luxembourg, Spain, Sweden, and the United Kingdom

The drug is also among other synthetic opioids that are a current matter of concern in the United States and Canada

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## Octofentanyl

It is seized mostly in white or brown powdered form

A recent seizure of a pink colored powder has been also reported

#### Fentanyls continue to replace heroin in the drug arena: the cases of ocfentanil and carfentanil

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## Fentanyl analogues

- Acetylfentanyl
- -Butyrylfentanyl
- -Furanylfentanyl
- And many more...

## Fentanyl analogues



European Monitoring Centre for Drugs and Drug Addiction



Nasal spray bottles w/ acryloylfentanyl Police seizure, Sweden, 2016

> Rita Jorge Lisboa, 19 September 2017 DRD Expert Meeting

## Fentanyl analogues



European Monitoring Centre for Drugs and Drug Addiction



Rita Jorge Lisboa, 19 September 2017 DRD Expert Meeting

Nasal spray bottles w/ furanylfentanyl Found in a postal shipment, Norway, 2017

## Fentanyl analogues



European Monitoring Centre for Drugs and Drug Addiction

#### FIGURE 6

Unlabelled nasal sprays containing acryloylfentanyl that were sold online in Sweden in 2016



Source: Image kindly provided by Prof Anders Helander, Department of Laboratory Medicine, Karolinska Institutet, Stockholm, Sweden. Copyright: Anders Helander.



(J Addict Med 2017;11: 256-265)



AH-7921 (≈ morphine)

 Was initially described in 1974 by a drug discovery team from Allen&HanburysLtd, and belongs to a series of compounds known as cyclohexylamines

#### Misuse of Novel Synthetic Opioids: A Deadly New Trend

Matthew P. Prekupec, MD, Peter A. Mansky, MD, and Michael H. Baumann, PhD

AH-7921 was firstly identified in 2012 in samples of a product known as **Doxylam** which was used by Internet retailers as an alternative name for AH-7921



AH-7921 (≈ morphine) MINI REVIEW published: 20 June 2018 doi: 10.3389/fphar.2018.00654

#### Pharmacotoxicology of Non-fentanyl Derived New Synthetic Opioids

Renata Solimini<sup>1</sup>, Simona Pichini<sup>1\*</sup>, Roberta Pacifici<sup>1</sup>, Francesco P. Busardò<sup>2†</sup> and Raffaele Giorgetti<sup>3†</sup>

<sup>1</sup> National Centre on Addiction and Doping, Istituto Superiore di Sanità, Rome, Italy, <sup>2</sup> Unit of Forensic Toxicology, Department of Anatomical, Histological, Forensic and Orthopedic Sciences, Sapienza University of Rome, Rome, Italy, <sup>3</sup> Section of Legal Medicine, Università Politecnica delle Marche, Ancona, Italy

The name Doxylam could be easily confounded with the name of an antihistamine drug with sedative-hypnotic properties, doxylamine, present in several over-the-counter medicines. The accidental use ofAH-7921/doxylam for the treatment of allergy or as a hypnotic might lead to serious health damages.



AH-7921 (≈ morphine)

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- AH-7921 recently entered the illicit drug market as new psychotropic substance in countries such as Japan, United States and Europe, resulting in several fatalities and intoxications.
- In fatalities occurred in European countries, the reported blood concentrations ranged from 31 to 1,449 ng/mL



AH-7921 (≈ morphine)

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The compound is taken orally, nasally, by smoking, and, less commonly, by intravenous injection. The main clinical effects included hypertension, tachycardia.



Review

#### Novel Synthetic Opioids: The Pathologist's Point of View

Paolo Frisoni<sup>1</sup>, Erica Bacchio<sup>1</sup>, Sabrine Bilel<sup>2</sup>, Anna Talarico<sup>3</sup>, Rosa Maria Gaudio<sup>1</sup>, Mario Barbieri<sup>1</sup>, Margherita Neri<sup>4,\*</sup> and Matteo Marti<sup>4,5</sup>

AH-7921 (≈ morphine)

Received: 31 July 2018; Accepted: 29 August 2018; Published: 2 September 2018

 Light doses are from 5 to 10 mg, common doses from 10 to 25 and strong doses>25 mg. Onset of action for oral administration is 15-45 min, duration 6-8 h and after effects 1-6 h.

> MINI REVIEW published: 20 June 2018 doi: 10.3389/fphar.2018.00654

AH-7921 (≈ morphine)



#### Pharmacotoxicology of Non-fentanyl Derived New Synthetic Opioids

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#### AH-7921

- µ-opioid receptor agonist
- analgesic potency close to that of morphine
- sold as a 'research chemical'
- Detections in at least 9 countries

## Fentanils in Europe: perspective from the EU EWS

Rita Jorge Lisboa, 19 September 2017 DRD Expert Meeting

## U 47 700 7,5 v VS Morphine

- Analgesic drug since 1970's
- Strong µ-receptor opiooid agonist
- «U4», «Pinky», «Pink»
- Available in Europe since 2014
- Sold on web dark
- White powder
- Nasal spray
- Es. Postmortem, 2018 Pub

#### First Case in Italy of Fatal Intoxication Involving the New Opioid U-47700

Enrico Gerace<sup>1</sup>, Alberto Salomone<sup>1\*</sup>, Clemente Luciano<sup>1</sup>, Daniele Di Corcia<sup>1</sup> and Marco Vincenti<sup>1,2</sup>

#### U-47700

JHT 问

- Potent opioid
- First detected in Europe in 2014.
- EU EWS ALERT 8th June 2016.
- Deaths reported in the US, Belgium, Sweden, UK and Finland. €12.45



```
Availability: In Stock
```

Friend

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Quantity 🎽		* Req	uired Fie	ids	
50mg			~	1	
Add to Cart	Į	aty	0		

#### U-47,700-related fatalities in Finland

Pirkko Kriikku, forensic toxicologist, PhD

## The role of darkweb



European Monitoring Centre for Drugs and Drug Addiction

# Drugs and the darknet

Perspectives for enforcement, research and policy



## The role of darkweb



European Monitoring Centre for Drugs and Drug Addiction

#### FIGURE 1.1 Darknet markets content



Source: Web-IQ (2017).





European Monitoring Centre for Drugs and Drug Addiction

## CRYPTOMARKETS

## SOCIAL NETWORK



#### FIGURE 2.11

Breakdown of AlphaBay sales revenue originating from the EU, Norway and Turkey by country, 2015-2017

a) Breakdown by revenue (major countries)

Revenue (millions of EUR)









## CRYPTOMARKETS







## CRYPTOMARKETS



Country/language	Platform name	Source
France/French	The French connection	Survey
France/French	French Deep Web	Survey; Deepdotweb.com
France/French	French Freedom Zone	Survey; Deepdotweb.com
France/French	THC Market	Deepdotweb.com
France/French	French Darknet	Deepdotweb.com
France/French	French Market Place	darknetmarkets.org
France/French	French Dark Place 2.0	darknetmarkets.org
ltaly/ltalian	Babylon	darknetmarkets.org
ltaly/ltalian	Italian darknet Community	Deepdotweb.com; darknetmarkets.org
Norway/Norwegian	Fluesopp	Survey
Russia/Russian	Wayaway	Deepdotweb.com
Russia/Russian	Rutor	Deepdotweb.com
Russia/Russian	Ramp	Deepdotweb.com



## CRYPTOMARKETS



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France/French	THC Market	Deepdotweb.com
France/French	French Darknet	Deepdotweb.com
France/French	French Market Place	darknetmarkets.org
France/French	French Dark Place 2.0	darknetmarkets.org
ltaly/ltalian	Babylon	darknetmarkets.org
ltaly/ltalian	Italian darknet Community	Deepdotweb.com; darknetmarkets.org
Norway/Norwegian	Fluesopp	Survey
Russia/Russian	Wayaway	Deepdotweb.com
Russia/Russian	Rutor	Deepdotweb.com
Russia/Russian	Ramp	Deepdotweb.com



## Drug dealing on Facebook, Snapchat and Instagram: A qualitative analysis of novel drug markets in the Nordic countries

JAKOB DEMANT<sup>1</sup>, SILJE ANDERDAL BAKKEN<sup>1</sup>, ATTE OKSANEN<sup>2</sup>, & HELGI GUNNLAUGSSON<sup>3</sup>

#### Drug and Alcohol REVIEW



Table 3. Key information on most popular social media and drugs and the number of interviews and Facebook groups by country

Country	Social media	Number of interviews	Number of Facebook groups	Top three drugs (from Facebook posts)
Denmark	Facebook, Messenger, Wickr	26	26	Cannabis, cocaine, prescription drugs
Finland	Darknet, Wickr, other encrypted apps	15	_	_
Iceland	Facebook	7	30	Cannabis, prescription drugs, ecstasy/MDMA
Norway	Wickr, Snapchat, darknet	35	_	_
Sweden	Facebook, Wickr, darknet	24	57	Cannabis, prescription drugs, amphetamine

### Drug and Alcohol REVIEW

🛜 Ho ho ho. Th	en Santa is back with presents
🗑 🎯 🛞 'We are	in with [capitol]'s best.
Sne 🕘 💮 X-mas	
O O Active day	s 24/7 🔆 🔆
l Delivers all c	ity 🙈
👃 Taste before	buy 👃
🧐 1/700.	10/4000
2/1400.	@ 20/8000 @ 3/.2000
💮 30/13000	
🧼 5/3500.	50/20000
@ 100/3800	
(PS: larger a	amounts available)

TOP QUALITY!! TOP FLAKE!! TOP SERVICE!!

Best,

Figure 1. Example of a Facebook seller post.

#### Drug and Alcohol REVIEW





## How much fentanyl is available on the darknet?

March 2019

Matthew Ball, Roderic Broadhurst and Harshit Trivedi



**Australian Government** 

Australian Institute of Criminology

## Statistical Bulletin 18

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**Australian Government** 

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# How much fentanyl is available on the darknet?

March 2019

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Table 1: Market share by all unique products, drugs, opioids and fentanyl listings				
Markets	All unique listings n (%)	Drugs n (%)	Opioids n (%)	Fentanyl n (%)
Berlusconi	38,673 (15.5)	13,079 <mark>(</mark> 10.6)	420 (5.7)	64 (14.6)
Dream	167,217 (67.1)	88,905 (72.3)	5,495 (74.3)	30 (6.8)
Empire	9,483 (3.8)	2,765 (2.2)	104 (1.4)	34 (7.7)
Tochka	6,336 (2.5)	3,312 (2.7)	72 (1.0)	38 (8.6)
Valhalla	10,765 (4.3)	7,110 (5.8)	511 (6.9)	45 (10.3)
Wall Street	16,866 (6.8)	7,861 (6.4)	795 (10.8)	228 (51.9)
Total	249,340	123,032	7,397	439

Note: Percentages refer to column totals. Percentages may not total 100 due to rounding

#### Figure 1: Opioids available on darknet markets, by type of opioid



## How to Fight the Opioid Crisis

#### The New York Times

#### By David A. Kessler

Jan. 10, 2018



## How to Fight the Opioid Crisis

By David A. Kessler

Jan. 10, 2018

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#### Educating physicians and health professionals

- The Centers for Disease Control and Prevention, which

established primary physician practice guidelines

- The National Institute of Drug Abuse
- The Substance Abuse and Mental Health Administration;
   the Food and Drug Administration; and the Office of the Surgeon General.

## How to Fight the Opioid Crisis

The New York Times

By David A. Kessler

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Expanding access to medications that help treat opioid addiction, requiring "**prescriber education initiatives**" and providing model legislation for states to allow a standing order for anyone to receive naloxone, a drug used to reverse opioid overdoses



### THE PRESIDENT'S COMMISSION ON COMBATING DRUG ADDICTION AND THE OPIOID CRISIS

### **Roster of Commissioners**

Governor Chris Christie, Chairman Governor Charlie Baker Governor Roy Cooper



### **Evidence- based Prevention Programs**

- Selective interventions are delivered to particular communities,
   families, or children who, due to their exposure to risk factors
   are at increased risk of substance misuse problems.
- Selective interventions may include families living in poverty, the children of depressed or substance using parents, and children who have difficulties with social skills or may have experienced trauma.



- Mass Media Public Education Campaigns
- Opioid Prescription Practices
- Reducing and Addressing the Availability of Illicit Opioids
- Protecting First Responders
- from Harmful Effects Resulting from
- Exposure to Fentanyl and other Synthetic Opioids..

And more..



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### Opioid crisis has cost Canada nearly \$5 billion in lost productivity, U of A student finds

Economics student estimates financial toll of a drug epidemic that has claimed more than 11,000 lives since 2016.

## Canada: nearly 14,000 people die from opioid overdoses in four years

More than 17,000 have been hospitalized in what officials say is mounting crisis





#### Distribution of take-home opioid antagonist kits during a synthetic opioid epidemic in British Columbia, Canada: a modelling study

Michael A Irvine, Jane A Buxton, Michael Otterstatter, Robert Balshaw, Reka Gustafson, Mark Tyndall, Perry Kendall, Thomas Kerr, Mark Gilbert\*, Daniel Coombs\*

#### Correlates of seeking emergency medical help in the event of an overdose in British Columbia, Canada: Findings from the Take Home Naloxone program

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### KNOW HOW TO RECOGNIZE AN OPIOID OVERDOSE

#### Signs of an Opioid Overdose



Canada's new Good Samaritan law can protect you. You have the power to save a life.

> Learn more at Canada.ca/Opioids Together we can #StopOverdoses



CANADA.CA/OPIOIDS



#### Combating the Opioid Crisis and Other Substance Misuse: Schools, Students, Families

In October 2017, President Donald J. Trump declared the opioid crisis a national public health emergency. The U.S. Department of Education (the Department) is joining other Federal agencies in combating the opioid crisis that is killing Americans at unprecedented rates and plaguing families and communities. While the causes of opioid misuse are complex and determined by multiple factors, the goals of prevention and recovery focus on reducing risk and promoting factors that increase resiliency. Schools play an important role in reaching these goals.



### U.S. Department of Education



#### What are opioids, how are they having an impact and what is the Federal government doing?

- · Opioids are natural or synthetic chemicals that reduce feelings of pain.
- Opioids are a class of drugs that include pain relievers available legally by prescription such as oxycodone, hydrocodone (Vicodin), codeine and morphine, as well as heroin and synthetic opioids such as fentanyl.
- · Anyone who takes prescription opioids can become addicted to them or develop tolerance of physical dependence.
- In 2016, more Americans died due to opioid overdoses than car crashes. From cities and suburbs to rural America, opioid addiction
  and overdose is "the crisis next door".



The National Prescription Drug Take Back Day addresses a crucial public safety and public health issue. According to the 2018 National Survey on Drug Use and Health, **9.9 million Americans misused controlled prescription drugs**. The study shows that a majority of abused prescription drugs were obtained from family and friends, often from the home medicine cabinet.

The DEA's Take Back Day events provide an opportunity for Americans to prevent drug addiction and overdose deaths.





# **STOP STIGMA**

The 12 Step Program is Great But it is NOT the Only Way

Media

Methadone Suboxone Naltrexone

"In all my years as a physician, I have never, ever met an addicted person who wanted to be an addict."

Dr. Nora Volkow
 NIDA Director



DrugAbuse.gov

### Grazie a tutti per l'attenzione

