Opioid-related deaths have grown by 20% since 2011

Opioid-related deaths per million inhabitants, 25 OECD countries, 2011-2016 (or latest available)

Note: Countries ranked by latest year with available information. Source: EMCDDA and country contributions.
Four main factors fuelling the opioid crisis

**Opioids prescription and over-prescription in health systems**
- Uncorroborated claims of prescription opioids safety and risks
- Opioid manufacturers’ influence
- Poor opioid prescribing practices and insufficient education
- Insufficient alternatives for pain management

**Dynamic illicit market of opioids**
- Availability of low cost and high purity illicit opioids
- Polysubstance use and abuse
- Prison post-release period

**Treatment of opioid use disorder patients**

**Macroeconomic and social conditions**
Both prescription and illegal opioids contribute to the crisis

**Illegal opioids**
- Opioid use is fuelled by illicit markets.
- Heroin has been the most prevalent illicit opioid worldwide.
- Recently, much stronger analogues have taken the scene. Carfentanil that can be 10,000 times stronger than morphine.

**Prescription opioids**
- They are used in the therapy of moderate to severe pain, palliative care and opioid use disorders.
- Over-prescription and misuse can lead to abuse and dependence.
Availability of analgesic opioids grew almost 110% in the 2000s

Mean availability of analgesic opioids in OECD countries 2011-2016. S-DDDs per million inhabitants per day

Note: This does NOT include illicit opioids. Source: INCB 2018
Billionaire founder of opioid firm guilty of bribing doctors to prescribe drug

- John Kapoor, 75, also guilty of defrauding insurance companies
- Prosecutors say fentanyl drug Subsys fuelled opioid epidemic

The head of a leading drug manufacturer has been found guilty of bribing doctors to prescribe a dangerous painkiller to patients who did not need it, in the first criminal conviction of a pharma chief over the opioid epidemic.

A Boston jury also found John Kapoor, the 75-year-old billionaire founder of Insys Therapeutics, guilty of defrauding insurance companies in the push to sell Subsys, a spray made from fentanyl, a synthetic opioid many times stronger than morphine.

Teva boss hits out at opioid lawsuits

Schultz likens claims against drugmakers to blaming drunk driving on makers of alcoholic drinks

The chief executive of Israeli drugmaker Teva hit out at the lawyers behind thousands of cases accusing opioid manufacturers of being responsible for an epidemic of addiction in the US.

Kåre Schultz compared the claims against Teva and others to trying to pin the blame for drunk driving on the makers of alcoholic drinks.

On a call with analysts following Teva’s latest quarterly results, Mr Schultz said addiction was a “serious societal issue” that has become “a little craze for a

Hannah Kuchar in New York May 2, 2019

The Guardian
Four main factors fuelling the opioid crisis

**Opioids prescription and over-prescription in health systems**
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**Dynamic illicit market of opioids**
- Availability of low cost and high purity illicit opioids
- Polysubstance use and abuse
- Prison post-release period

**Treatment of opioid use disorder patients**
- Barriers to access medication assisted therapies
- Predominance of abstinence-only rehabilitation therapies
- Inadequate access to evidence-based harm minimisation interventions

**Macroeconomic and social conditions**
- Unemployment
- Housing
- Social exclusion
- Stigma
Addressing problematic opioid use:
4 areas of policy action

- Health system actions
- Social policies
- Opioid prevention and control
- Information and knowledge

Regulation and enforcement
Social support and medical treatment are most common areas of policy action

<table>
<thead>
<tr>
<th>Social reintegration support</th>
<th>Medical treatment</th>
<th>Needle/syringe programmes</th>
<th>Self-help and mutual aid groups</th>
<th>Clinical guidelines</th>
<th>Disciplinary actions for physicians overprescribing</th>
<th>Stewardship programmes</th>
<th>Drug consumption rooms</th>
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Note: Countries in alphabetical order within each category. National level implementation in dark blue, sub-national level of implementation in light blue. Source: OECD 2018 survey on opioids control.
Regulation and enforcement actions

**Identify of high risk shipments:**
- Registration of precursors
- Pre-load or pre-arrival air security
- Open low-weight mail (30g or less in Canada)

**Inspection and education of regulated parties (e.g. storage):**
- Prescription monitoring programmes

**First responders (e.g. training, availability):**
- Public health perspective and promotion of interventions.
- Internet monitoring with machine learning techniques

**Drug treatment courts**
- Good Samaritan laws
- Legal status of drug use and possession for personal consumption
Better research is needed for pain relief

Relatively small number of analgesic drugs approved in the last three decades

**Opioid analgesics**
- 1982: Pethidine
- 1968: fentanyl
- 1947: methadone
- 1943: hydrocodone
- 1926: hydromorphone
- 1914: morphine
- 1911: dihydrocodeine
- ~1900: codeine

- 1996: oxycodone
- 1995: tramadol

- 2008: tapentadol
- 2006: tilidine
- 2002: buprenorphine

**Non-opioid analgesics**
- 1950: acetaminophen
- 1965: aspirin
- 1973: diclofenac
- 1974: ibuprofen
- 1976: naproxen
- 1986: ketoprofen

**1900-1989**

- 1990-1999
- 2000-2018

**Note:** The timeline includes the main Mu opioid agonists, Acetaminophen, Nonsteroidal anti-inflammatory drugs (NSAIDs) approved by the F.D.A. (first approval date) and still marketed. The timeline does NOT include adjuvant analgesics or co-analgesics (e.g. anticonvulsants and tricyclic antidepressants) and local or topical anesthetics. **Source:** Authors’ elaboration on FDA and NCBI information.
In summary

<table>
<thead>
<tr>
<th>Better prescribing</th>
<th>Better care</th>
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<tbody>
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<td>Improving prescribing practices, limiting over-prescription and enhancing opioid-related literacy.</td>
<td>Expanding evidence-based MAT and harm minimisation with quality improvement and measurement strategies.</td>
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<th>More co-ordinated approach</th>
<th>Better knowledge &amp; research</th>
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<td>Between health, social and criminal justice systems, facilitating access to patient care and support.</td>
<td>Big data with advanced analytics, impact evaluations and R&amp;D for pain and OUD care.</td>
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</table>

Opioid use disorders should be considered as a **chronic health condition**, guiding the design of both short- and long-term health system, social policy and law enforcement strategies.
Thank you!

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