Opioids and Overdose in Rhode Island

- Over the past decade, opioid abuse has reached epidemic levels in Rhode Island and many other parts of the US.
- In RI and 28 other states plus Washington DC, drug overdose exceeds motor vehicle accidents as the leading cause of accidental death in adults.
- This rise in opioid abuse and fatal overdose correlates with increased rates of opioid prescriptions and a rise in addiction treatment admissions.

Rates of prescription painkiller sales, deaths, and substance abuse treatment admissions (1999-2010)

- Of concern are both illicit opioids (e.g., heroin) and misuse of prescription opioids (oxycodone, hydrocodone, etc)
- In RI, prescription overdose deaths have remained relatively stable over the past five years. Illicit overdose deaths have doubled in this time period.
- As of mid-2013, the RI State Medical Examiner’s Office reported about four accidental overdose deaths each week.
- As of April 2014, there have been 90 confirmed opioid overdose deaths.
While illicit drug use is most common in young adults, the highest rates of fatal overdoses occur in middle aged men, between 40 and 60 years old.

Most overdose fatalities in women occur in this age range as well. Women currently make up one third of overdose deaths in all age ranges, but this gap is RAPIDLY closing.

Opioid addiction is a chronic and relapsing disease characterized by a permanent change in the structure and function of the brain.

Susceptibility to addiction has a strong genetic component, and when combined with exposure to opioids, dependence and addiction are likely to result.

There is a misconception among the public, the medical community, law enforcement, and users themselves that addiction is cured once withdrawal has ceased and abstinence is achieved.

Overdose prevention education and naloxone distribution are feasible and cost effective methods that have been shown to reduce fatal overdose in communities and increase enrollment in drug treatment.

Lay responders, armed with knowledge, skills, and resources, are willing and able to identify an overdose and administer naloxone, resulting in lives saved.

Just as providing access to condoms and birth control does not lead to risky sexual behaviors, and prescribing epi-pens does not lead to rampant poking of bee hives, harm reduction strategies DO NOT increase drug use.

Naloxone distribution and other harm reduction programs are not the solution to the opioid addiction epidemic; They help keep individuals alive so that they can work towards recovery.
Tolerance

• Opioids bind at opioid receptors causing a spectrum of therapeutic, pleasurable, and potentially dangerous effects.

• Repeated exposure to opioids (for any reason) desensitizes opioid receptors and leads to a decrease in their number and density.

• It will now take more opioid to cause the same effect, (i.e. tolerance).

• When opioid receptors are not exposed to opioids for any period of time, the number and density of receptors returns to baseline.

• It will now take less opioid to cause the same effect.

• If the same amount of opioid is given, it will cause a stronger reaction.

• Individuals develop tolerance to the pleasurable effects of opioids (e.g. pain relief, feelings of euphoria, “high”)

• There is NO tolerance to the respiratory depression and hypoxia caused by increased doses of opioids.

• Therefore, as an individual increases the amount they are taking (or as the amount prescribed increases in order to achieve a therapeutic goal), the risk of overdose and death increases.

• Overdose is especially likely in those where the amount needed to get “high” is very close to the amount that causes them to stop breathing.

80% of new heroin users start with prescription pain medications

Sources of abused prescription opioids

Overdose Risk Factors

There is an increased likelihood of overdose when any of the following factors are present:

• Decreased tolerance due to recent abstinence
  • hospitalization
  • imprisonment
  • detox/rehab

• Solo opioid use
  • using in the absence of anyone who can recognize and respond to an overdose

• Mixing of opioids
  • with other opioids
  • with alcohol
  • with benzodiazepines
  • with prescription meds
  • with other known or unknown substances, e.g. fentanyl

• Acute or chronic illness
  • Hepatitis C
  • HIV/AIDS
  • pneumonia
  • sleep apnea
  • other liver or respiratory conditions
Overdose Recognition

Overdose can happen right after using, but usually occurs within 1-2 hours.

A person who overdoses will have some or all of the following symptoms:

• Can’t be woken up
• Slow or no breathing
• Limp body
• Fingernails or lips turning blue
• Unable to speak or incoherent
• Vomiting or gurgling noises

Naloxone (Narcan)

• Naloxone (Narcan) reverses the effects of opioids.
• It only works for opioid overdose (heroin, pain killers), not for other kinds of drugs (cocaine, meth).
• There are no adverse effects if naloxone is given to someone who is not overdosing on opioids, so when in doubt, give it.
• It can be injected into a large muscle (thigh or upper arm) or given through the nose with a special nasal atomizer.
• Naloxone starts working in 3-5 minutes and lasts for 30-90 minutes.
• If there is no improvement in 5 minutes, give a second dose.
• If the first dose wears off and they start to “re-overdose”, give another dose.

Naloxone

• Naloxone works by “pushing” opioids off their receptors.
• It then binds to the opioid receptors and blocks opioids from binding.
• This rapid removal of opioids from receptors can cause symptoms of withdrawal, although the severity varies from person to person.
• The opioids have NOT been removed from the body or neutralized and will therefore re-attach as soon as the naloxone wears off in 30-90 minutes.

Duration of Action of Opioids and Opioid Antagonists

INJECTABLENALOXONE
• Remove cap from naloxone vial and syringe
• Insert needle through rubber plug
• Pull back on plunger until there is 1cc in the syringe
• Inject into a large muscle (thigh or upper arm)

NASAL NALOXONE
• Remove all caps
• Screw glass vial into plastic tube
• Screw nasal atomizer into plastic tube
• Inject half of vial into each nostril

Overdose Response - Law Enforcement

• If you can’t wake someone up or they aren’t breathing, make sure EMS is dispatched.
• Perform rescue breathing.
• If there are any indications that opioids might be involved, administer one dose of naloxone (Narcan).
• Keep rescue breathing until the naloxone starts to work or EMS arrives.
• If you have to leave for any reason, roll the person on their side into the recovery position.
If you can’t wake someone up or they aren’t breathing, CALL 911.

Tell them someone is not breathing. You don’t have to mention drugs.

Give an accurate description of your location.

Perform rescue breathing.

Give naloxone (Narcan) if you have it.

Keep rescue breathing until the naloxone starts to work.

Stay with the person until help arrives. If you have to leave, roll the person on their side.

Rescue Breathing

- Tilt the person's head back.
- Pinch nose.
- Seal your mouth over theirs.
- Use a barrier device if you have one.
- Give 1 breath every 5 seconds.
- Keep going until help arrives or the person starts breathing on their own.

Why worry about addiction and overdose?

- In 2009, the annual cost of opioid abuse and addiction was over $56 billion.
  - The largest portion of this cost is in lost productivity
  - In RI, $31 million was spent on healthcare costs due to overdose.
- Similar programs have shown that overdose deaths can be prevented by first responders and laypeople armed with education and naloxone.
- Preventing morbidity and mortality is not only socially and economically beneficial, it is the right thing to do.

Naloxone in the Community

- Naloxone is safe
  - It is non-addictive and there is no potential for abuse
- Naloxone is effective
  - At-risk individuals and lay responders with minimal training are able to identify an overdose and administer naloxone
- Naloxone works
  - In areas that have implemented community overdose prevention education and naloxone distribution, death rates from overdose have gone down significantly.
  - There seems to be a “herd immunity” when a significant percentage of the population is prepared to respond to overdose.
- Naloxone saves lives
  - Both those who save lives with naloxone and those who have had their life saved are more likely to access substance abuse treatment.

For every overdose death:

- 10 admissions to treatment
- 32 ED visits
- 130 addicted or dependent
- 825 non-medical users
Law Enforcement and Public Safety Response

- Most individuals with a drug addiction will encounter law enforcement at some point.

- Overdose prevention education provides another tool or opportunity to engage with those who abuse drugs, their families, and the community at large.

“The perception of the police in the city of Quincy has dramatically changed... people are now looking at us being able to assist them as opposed to only enforcers of the law.”
- Lt. Patrick Glynn, Quincy Police Department

Liability

- Most law enforcement officers are not medical professionals and you are not being asked to function as such.

- Even with the most advanced levels of training, it is sometimes difficult to determine if an individual is suffering from an overdose or from another medical emergency. The specific substances involved in an overdose are often not obvious.

- As non-medical first responders, your task is to identify situations in which an opioid overdose is POSSIBLE or LIKELY and respond according to departmental policy.

- All of these individuals will be turned over to EMS, who, along with hospital staff, will determine the exact nature of illness.

Logistical Concerns

- Naloxone must be stored out of direct light. Effective methods include leaving it in its box or storing it in a standard orange medication bottle.

- Naloxone must be kept at room temperature (59-86°F or 15-30°C). It should never be stored in a refrigerator or a vehicle glove box or trunk.

- Certain cases can provide a temperature-controlled environment.

- If naloxone is stored improperly, it loses its effectiveness. It does not become harmful if administered.

Good Samaritan Overdose Prevention Act

- Civil and criminal immunity for the "good faith" administration of naloxone by a layperson to someone experiencing an overdose.

- Anyone who seeks medical assistance for someone experiencing an overdose (e.g. calling 911, performing rescue breathing, administering naloxone) will not be charged with drug possession.

- Anyone who experiences a drug overdose and needs medical assistance will not be charged with drug possession.

  - Neither of these immunities extend to manufacture or distribution of drugs.

  - The act of providing medical assistance (e.g. calling 911, performing rescue breathing, administering naloxone) may be used as a mitigating factor in criminal prosecution.

Calling 911

- Naloxone works for only 30-90 minutes. In this time, it is imperative for the individual who overdosed to get to definitive medical care. The safest way and most efficient way for this to happen is for those on the scene to call 911.

- The biggest barrier to people calling 911 for an overdose is fear of law enforcement involvement. They fear legal repercussions for themselves and the person who overdosed.

- Good Samaritan laws help, but the only way practices change is when the attitudes and actions of both drug users AND public safety positively reinforce lifesaving actions.

- The more positive interactions between law enforcement and individuals at overdose scenes, the more likely they will be to call 911 the next time.

Law Enforcement and Public Safety Response

- Drug abuse and overdose is a wide-reaching public health problem that affects those who use drugs, their families and friends, health care providers, public safety professionals, and the community as a whole.

- When officers are equipped with the knowledge and resources to intervene and assist in reversing an overdose and saving a life, it helps to foster trust and collaboration between public safety professionals and the community at large.
   (a) A person may administer an opioid antagonist to another person if:
      (1) He or she, in good faith, believes the other person is experiencing a drug overdose; and
      (2) He or she acts with reasonable care in administering the drug to the other person.
   (b) A person who administers an opioid antagonist to another person pursuant to this section shall not
       be subject to civil liability or criminal prosecution as a result of the administration of the drug.

   (a) Any person who, in good faith, without malice and in the absence of evidence of an intent to
       defraud, seeks medical assistance for someone experiencing a drug overdose or other drug-related
       medical emergency shall not be charged or prosecuted for any crime under RIGL 21-28 or 21-28.5,
       except for a crime involving the manufacture or possession with the intent to manufacture a controlled
       substance or possession with intent to deliver a controlled substance, if the evidence for the charge
       was gained as a result of the seeking of medical assistance.
   (b) A person who experiences a drug overdose or other drug-related medical emergency and is in need
       of medical assistance shall not be charged or prosecuted for any crime under RIGL 21-28 or 21-28.5,
       except for a crime involving the manufacture or possession with the intent to manufacture a controlled
       substance or possession with intent to deliver a controlled substance, if the evidence for the charge
       was gained as a result of the overdose and the need for medical assistance.
   (c) The act of providing first aid or other medical assistance to someone who is experiencing a drug
       overdose or other drug-related medical emergency may be used as a mitigating factor in a criminal
       prosecution pursuant to the controlled substances act.