THE NALOXONE PROJECT
SOUTH DAKOTA STATE TARGETED RESPONSE TO THE OPIOID CRISIS

Opioids are substances that produce morphine-like effects and medical uses.
Drug Deaths in America Are Rising Faster Than Ever

By JOSH KATZ  JUNE 5, 2017

New data compiled from hundreds of health agencies reveals the extent of the drug overdose epidemic last year.

AKRON, Ohio — Drug overdose deaths in 2016 most likely exceeded 59,000, the largest annual jump ever recorded in the United States, according to preliminary data compiled by The New York Times.

The death count is the latest consequence of an escalating public health crisis: opioid addiction, now made more deadly by an influx of illicitly manufactured fentanyl and similar drugs. Drug overdoses are now the leading cause of death among Americans under 50.

Although the data is preliminary, the Times’s best estimate is that deaths rose 19 percent over the 51,404 recorded in 2015. And all evidence suggests the problem has continued to worsen in 2017.
WHAT BRINGS US TOGETHER?

Nationwide opioid epidemic

The Impact Realized in South Dakota
Naloxone Project Staff and Trainers

Lynne Valenti, Deputy Secretary Department of Health

Marty Link
Assistant Administrator, Office of Rural Health
Director of EMS and Trauma

Eugene Taylor
DOH Consultant—Eastern SD Lead Educator
Critical Care Paramedic
Opioid Grants

Department of Health
Department of Social Services
The Department of Health
CDC Funded Opioid Abuse Grant

*Prescription Drug Overdose: Data-Driven Prevention Initiative* planning grant

**Grant Purpose**

To support and build efforts to track and understand the full impact of opioid use and abuse in SD conduct a needs assessment;

Complete a strategy plan to identify needs and strengthen South Dakota’s capacity to prevent misuse/abuse of opioids; and

Develop a data strategy to enhance and integrate current surveillance efforts for more accurate, timely data.
The Department of Social Services
CDC Funded Opioid Abuse Grant

State Targeted Response to the Opioid Crisis Grant (Opioid STR).

The purpose of the grant program is to:

(a) Increase access to treatment;

(b) Supplement current opioid activities; and

(c) Support a comprehensive response to the opioid epidemic
Naloxone Training and Distribution

Office of Rural Health—Lead Agency

Purpose:

Train and Equip First Responders on Naloxone Use
- Hospital
- EMS
- Law Enforcement

Training through Eight Regional Sessions

Initial goal of training 500 responders between October and December of 2017
Naloxone Team Members

Department of Social Services
Department of Health
Office of Rural Health, EMS Program
Project Super-Trainers
Evaluation Team
Data Collection
Project Medical Director
Opioid Related Deaths 2021

Provisional data from CDC’s National Center for Health Statistics indicate that there were an estimated 100,306 drug overdose deaths in the United States during 12-month period ending in April 2021, an increase of 28.5% from the 78,056 deaths during the same period the year before.

Drug Overdose Mortality by State 2020

<table>
<thead>
<tr>
<th>Location</th>
<th>Death Rate</th>
<th>Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>West Virginia – Worst</td>
<td>81.4</td>
<td>1,330</td>
</tr>
<tr>
<td>Minnesota (38\textsuperscript{th})</td>
<td>19.0</td>
<td>1,050</td>
</tr>
<tr>
<td>Wyoming (42\textsuperscript{nd})</td>
<td>17.4</td>
<td>99</td>
</tr>
<tr>
<td>North Dakota (45\textsuperscript{th})</td>
<td>15.6</td>
<td>114</td>
</tr>
<tr>
<td>Montana (46\textsuperscript{th})</td>
<td>15.6</td>
<td>162</td>
</tr>
<tr>
<td>Iowa (47\textsuperscript{th})</td>
<td>14.3</td>
<td>432</td>
</tr>
<tr>
<td>Nebraska (49\textsuperscript{th})</td>
<td>11.3</td>
<td>214</td>
</tr>
<tr>
<td>South Dakota (50\textsuperscript{th}) - Least</td>
<td>10.3</td>
<td>83</td>
</tr>
</tbody>
</table>

http://wonder.cdc.gov
Drug Related Deaths, South Dakota 2011-2020

Source: DOH Vital Statistics
South Dakota had the 2nd lowest age-adjusted rate of drug overdose death (2019)
SD = 10.5 per 100,000
US = 21.6 per 100,000
South Dakota had the 3rd lowest age-adjusted rate of opioid overdose deaths (2019)
SD = 4.5 per 100,000
US = 15.5 per 100,000
Source: DOH Vital Statistics
American Indian overdose rates are **2.5 times higher** than White race rates in South Dakota (2011-2020)

Source: DOH Vital Statistics
Overdose Deaths in South Dakota

Overdose Rates (per 100,000 by County (2011-2020)

Source: DOH Vital Statistics
Nonfatal Overdoses Hospitalized and/or ED Visits

Source: DOH Vital Statistics
Drug-Related Overdose Defined

34-20A-109. **Definitions** related to reporting person in need of emergency assistance for drug-related overdose. Terms used in §§ 34-20A-110 to 34-20A-113, inclusive, mean:

(1) "**Drug-related overdose**," an acute condition, including mania, hysteria, extreme physical illness, coma, or death resulting from the consumption or use of a controlled substance, or another substance with which a controlled substance was combined, and that a person would reasonably believe to be a drug overdose that requires medical assistance.

**Source:** SL 2017, ch 154, § 1.
34-20A-98. **Possession and administration of opioid antagonists by first responders.** Any first responder *trained in compliance* with § 34-20A-101 and acting under a standing order issued by a physician licensed pursuant to chapter 36-4 *may possess and administer opioid antagonists to a person exhibiting symptoms of an opiate overdose.*

**Source:** SL 2015, ch 179, § 1.

34-20A-99. **Opioid antagonist defined.** For the purposes of §§ 34-20A-98 to 34-20A-103, inclusive, the term, opioid antagonist, means **naloxone hydrochloride** or any other similarly acting and equally safe drug approved by the federal Food and Drug Administration for the treatment of drug overdose.

**Source:** SL 2015, ch 179, § 2.

34-20A-100. **First responder defined.** For the purposes of §§ 34-20A-98 to 34-20A-103, inclusive, the term, first responder, includes:

1. A **law enforcement officer** as defined by subdivision 22-1-2(22);
2. A driver and attendant responding to an emergency call as part of an **ambulance service** licensed pursuant to chapter 34-11; and
3. A firefighter.

**Source:** SL 2015, ch 179, § 3.
34-20A-101. **Training of first responders.** Each first responder authorized to administer an opioid antagonist shall be trained in the symptoms of an opiate overdose; the protocols and procedures for administration of an opioid antagonist; the symptoms of adverse responses to an opioid antagonist, and protocols and procedures to stabilize the patient if an adverse response occurs; and the procedures for storage, transport, and security of the opioid antagonist. The training shall comply with the criteria established pursuant to § 34-20A-102, and may be provided by the employer of first responders at the employer's discretion.

**Source:** SL 2015, ch 179, § 4.

34-20A-102. Promulgation of rules for training, possession, and administration of opioid antagonists. **The Board of Medical and Osteopathic Examiners** shall promulgate rules, pursuant to chapter 1-26, establishing:

1. The criteria for training a first responder to comply with the provisions of § 34-20A-101; and
2. The requirements for a physician’s issuance of a standing order to a first responder authorizing a prescription for the first responder’s possession of an opioid antagonist and the protocols and procedures to be followed in administering an opioid antagonist.

**Source:** SL 2015, ch 179, § 5.
34-20A-103. Immunity from civil liability for injuries or death associated with administration of opioid antagonists. A physician who issues a standing order under the rules established pursuant to § 34-20A-102, a first responder acting under a standing order who administers an opioid antagonist in good faith compliance with the protocols for administering an opioid antagonist, and the first responder's employer, are not civilly liable for injuries, and may not be held to pay damages to any person, or the person's parents, siblings, children, estate, heirs, or devisees, for injuries or death associated with the administration of an opioid antagonist.


34-20A-104. Possession and administration of opioid antagonists by person close to person at risk of overdose. A person who is a family member, friend, or other close third party to a person at risk for an opioid-related drug overdose may be prescribed, possess, distribute, or administer an opioid antagonist that is prescribed, dispensed, or distributed by a licensed health care professional directly or by standing order pursuant to §§ 34-20A-104 to 34-20A-108, inclusive.

34-20A-105. **Prescription for opioid antagonist.** A licensed health care professional may, directly or by standing order, prescribe an opioid antagonist to a person at risk of experiencing an opioid-related overdose, or prescribe to a family member, friend, or other close third party person the health care practitioner reasonably believes to be in a position to assist a person at risk of experiencing an opioid-related overdose.


34-20A-106. **Health care professional immunity from liability.** A health care professional who is authorized to prescribe or dispense an opioid antagonist is not subject to any disciplinary action or civil or criminal liability for the prescribing or dispensing of an opioid antagonist to a person whom the health care professional reasonably believes may be in a position to assist or administer the opioid antagonist to a person at risk for an opioid-related drug overdose.

*Source:* SL 2016, ch 174, § 3.
34-20A-110. Immunity from arrest or prosecution for reporting person in need of emergency medical assistance for drug-related overdose. No person may be arrested or prosecuted for any misdemeanor or felony offense of possession, inhalation, ingestion, or otherwise taking into the body any controlled drug or substance if that person contacts any law enforcement or emergency medical services and reports that a person is in need of emergency medical assistance as the result of a drug-related overdose. A person qualifies for the immunities provided in §§ 34-20A-109 to 34-20A-113, inclusive, only if:

1. The evidence for the charge or prosecution was obtained as a result of the person seeking medical assistance for another person;
2. The person seeks medical assistance for another person who is in need of medical assistance for an immediate health or safety concern; and
3. The person seeking medical assistance for another person remains on the scene and cooperates with medical assistance and law enforcement personnel.


34-20A-111. Immunity from arrest or prosecution for reporting one’s own need for emergency medical assistance for drug-related overdose. A person who experiences a drug-related overdose and is in need of medical assistance may not be arrested, charged, or prosecuted for any misdemeanor or felony offense of possession, inhalation, ingestion, or otherwise taking into the body any controlled drug or substance if that person contacts law enforcement or emergency medical services and reports that he or she is in need of medical assistance as the result of a drug-related overdose. A person qualifies for the immunities provided in this section only if the evidence for the charge or prosecution was obtained as a result of the drug-related overdose and the need for medical assistance.

Source: SL 2017, ch 154, § 3.
34-20A-113. **One-time immunity.** Any person seeking medical assistance or who reports a person is in need of medical assistance shall only qualify once for immunity under §§ 34-20A-109 to 34-20A-112, inclusive.

First Responder Overdose Response Training
Learning objectives

- Understand the overdose crisis
- Know how opioids work and overdose risk factors
- Recognize an opioid overdose
- Respond to opioid overdose
America leads the world in drug overdose deaths

America has about 4 percent of the world’s population — but about 27 percent of the world’s drug overdose deaths.

Americans are relatively wealthy, so they can afford to buy drugs.

In 1999, fewer than 17,000 people died from drug overdoses.

In 2020, that grew to more than 93,000
The opioid epidemic, explained

In 2020, more Americans died of drug overdoses than in any other year on record — more than 93,300 deaths in just one year.

That’s higher than:
The more than 47,500 who died in car crashes,
The more than 38,250 who died from gun violence,

And the more than 43,000 who died due to HIV/AIDS during that epidemic’s peak in 1995.
Opioids were involved in 61,209 (a rate of 14.6) overdose deaths in 2020 - nearly 70% of all overdose deaths.

Deaths involving synthetic opioids other than methadone (including fentanyl and fentanyl analogs) continued to rise with more than 30,100 (a rate of 9.9) overdose deaths in 2020.

The number of deaths involving prescription opioids declined to 14,975 (a rate of 4.6) in 2018 and those involving heroin dropped to 14,996 (a rate of 4.7).
How do opioids affect breathing?

Opioid Receptors

OVERDOSE
Respirations
Slow/Stop
HOW OVERDOSE OCCURS

• Breathing Slows
  • Breathing Stops
  • Lack of oxygen may cause brain damage

• Heart Stops

• Death
What are opioids/opiates?

- Medications that relieve pain
- Attach to the opioid receptors in the brain and reduce the intensity of pain signals reaching the brain.
The term opiate is often used as a synonym for *opioid*, however the term *opiate* refers to just those opioids derived from the poppy plant either natural or semi-synthetic.
Which medications are considered opioids?

*Morphine* is often used before and after surgical procedures to alleviate severe pain. It is often used as a palliative drug for end-stage terminal cancer.

*Hydrocodone* products are most commonly prescribed for a variety of painful conditions, including dental and injury-related pain.

*Codeine* is often prescribed for mild pain, can be used to relieve coughs and severe diarrhea.

*Oxycodone* (OxyContin, Percocet)

*Fentanyl*
How has this happened?

Back in the 1990s, doctors were persuaded to treat pain as a serious medical issue. There's a good reason for that: About 100 million US adults suffer from chronic pain.

Pharmaceutical companies took advantage of this concern. Through a big marketing campaign, they got doctors to prescribe products like OxyContin and Percocet in droves — even though the evidence for opioids treating long-term, chronic pain is very weak (despite their effectiveness for short-term, acute pain), while the evidence that opioids cause harm in the long term is very strong.

Painkillers proliferated, landing in the hands of not just patients but also teens rummaging through their parents' medicine cabinets, other family members and friends of patients, and the black market.

As a result, opioid overdose deaths trended upward — sometimes involving opioids alone, other times involving drugs like alcohol and benzodiazepines (typically prescribed to relieve anxiety). By 2015, opioid overdose deaths totaled more than 33,000 — close to two-thirds of all drug overdose deaths.
How are we trying to correct this?

Seeing the rise in opioid misuse and deaths, officials have cracked down on prescriptions painkillers.

Physicians are now being told to give more thought to their prescriptions.

Yet many people who lost access to painkillers prescriptions are still addicted.

So some who could no longer obtain prescribed painkillers turned to cheaper, more potent opioids: heroin and fentanyl, a synthetic opioid that’s often manufactured illegally for nonmedical uses.
In 2016, South Dakota medical doctors prescribed supplies of painkillers that totaled more than 3.6 million days of Hydrocodone; more than 3.2 million days of Tramadol; more than 1 million days of Oxycodone; and nearly 700,000 days of Oxycodone with acetaminophen.

**Enough doses of opiates were prescribed to South Dakotans in 2015 to medicate every SD adult around-the-clock for 19 straight days**

Between 2004-2011: 82 Opioid Deaths (approximately 10 per year)
2013: 17 Opioid Deaths
2014: 16 Opioid Deaths
Prescription Drug Monitoring Program
### Prescription Drug Monitoring Programs (PDMPs)

<table>
<thead>
<tr>
<th>What is a PDMP?</th>
<th>Who implements PDMPs?</th>
<th>What data do PDMPs collect?</th>
<th>Who can access PDMP data?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronic systems that digitally store, monitor, &amp; analyze controlled substance dispensing information</td>
<td>49 States Missouri is only state without one</td>
<td>Patient info Prescriber info Dispenser info Schedule II-IV drugs</td>
<td>Prescribers Pharmacies Law enforcement State medical boards</td>
</tr>
</tbody>
</table>
South Dakota Opioid Prescriptions

In 2018, South Dakota providers wrote 42.6 opioid prescriptions for every 100 persons compared to the average U.S. rate of 51.4 prescriptions.

DEA Official Blames Fentanyl-Heroin Mixture from Mexico for Recent Fatal Overdoses

The fentanyl-laced dope plaguing the northeastern United States is being made south of the border, according to officials.
Fentanyl: a synthetic short-acting opioid; *40-50x more potent than pure heroin*

Illicitly manufactured fentanyl is sold in the illicit market often mixed with heroin and/or cocaine as a combination product — with or without the user’s knowledge — to increase its euphoric effects.

Fentanyl-related overdoses can be reversed with naloxone, however a higher dose or multiple number of doses per overdose event may be required due to its high potency.
Fentanyl

June 12, 2017 – Chamberlain, SD
20,000 Fentanyl pills
19 year old male ordered off the internet

October 16, 2017 – Omaha, Nebraska
More than 33 pounds of fentanyl hidden in a suitcase at Omaha’s train station

Touching just a few grains of the white powdery substance could be deadly
WHY LAW ENFORCEMENT

First on scene of an overdose

Frequent interaction with high risk population

With the right tools, police can make a public health impact

Build bridges to active users and their social networks

Overdose is a true crisis and police can help
Hazardous as they may be for those who take them, opioids are also endangering police in this country. Officers respond to overdoses, they also try to arrest dealers. And as they come in contact with synthetic drugs, the risk of an accidental overdose is greater than in the past. Some drugs are now so potent that just a few grains can kill.

And it's making cops rethink their tactics. For instance, SWAT teams - when they raid drug operations, they often start out by tossing in flash-bangs, stun grenades to disorient anyone who might have a gun. But what happens when one of those grenades hits a stash of opioids?
Recognize overdose signs/symptoms

If a person is not breathing or is struggling to breath: call out their name and rub knuckles of a closed fist over the sternum (Sternum Rub)

Signs of drug use?
- Pills, drugs, needles, cookers

Look for overdose
- Slow or absent breathing
- Gasping for breath or a snoring sound
- Blue/Gray lips and nails

Pinpoint Pupils

Ensure EMS is en route/activated
<table>
<thead>
<tr>
<th><strong>Just High/Overmedicated</strong></th>
<th><strong>Overdose</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Small Pupils</td>
<td>Small Pupils</td>
</tr>
<tr>
<td>Drowsy, but arousable</td>
<td>Not Arousable</td>
</tr>
<tr>
<td>- Responds to sternal rub</td>
<td>- No response to sternal rub</td>
</tr>
<tr>
<td>Speech Slurred</td>
<td>Not speaking</td>
</tr>
<tr>
<td>Drowsy, but breathing</td>
<td>Breathing slow or not at all</td>
</tr>
<tr>
<td>- 8 or more times per minute</td>
<td>- &lt; 8 times per minute or absent</td>
</tr>
<tr>
<td>- Blue/gray lips and fingernail beds</td>
<td></td>
</tr>
</tbody>
</table>

**Stimulate and observe**

**Rescue breathe + administer Naloxone**
Common Risks for Opioid Overdose

Opioid dose and purity

Mixing substances
Alcohol, stimulants, marijuana, and prescription medications

Polypharmacy
Prescribed or non-prescribed

Social Isolation
Using alone

Addiction history

Chronic Medical Illness
Lung, liver, and kidney compromise

Overdose history

Abstinence
- Release from incarceration
- Completion of detoxification
- Relapse after abstinence
Recovery
Revolving door???

As it is for tobacco and weight loss, it takes multiple attempts before achieving success

By definition, addiction is a chronic condition where people make risky choices despite negative consequences

With time, treatment works - people get better

With treatment, crime is less common and therefore they interact with police less often

Law enforcement because its law enforcement is more likely to see the relapses than recovery
Medications for Opioid Overdose and Treatment

- **Narcan = Naloxone**
  - Reverses opioid overdoses
  - Short and Fast acting opioid blockers

- **Vivitrol = Naltrexone**
  - Treatment for opioid and alcohol addiction
Medications for Opioid Overdose and Treatment

Surboxone – Buprenorphine + Naloxone

* Treatment of opioid addiction
* The naloxone is added to discharge injecting or sniffing

Subutex = Buprenorphine Only

* Treatment of opioid in pregnant women

Methadone aka Dolophine and Methadose

* Treatment of opioid addiction or pain

These do have Street Value because they can relieve withdrawal symptoms
Updated opioid associated life-threatening algorithm

American Heart Association
Guideline
October 2015

Assess and activate.
Check for unresponsiveness and call for nearby help. Send someone to call 9-1-1 and get AED and naloxone. Observe for breathing vs no breathing or only gasping.

Begin CPR.
If victim is unresponsive with no breathing or only gasping, begin CPR.* If alone, perform CPR for about 2 minutes before leaving to phone 9-1-1 and get naloxone and AED.

Administer naloxone.
Give naloxone as soon as it is available. 2 mg intranasal or 0.4 mg intramuscular. May repeat after 4 minutes.

Does the person respond?
At any time, does the person move purposefully, breathe regularly, moan, or otherwise respond?

Yes: Stimulate and reassess.
Continue to check responsiveness and breathing until advanced help arrives. If the person stops responding, begin CPR and repeat naloxone.

No: Continue CPR and use AED as soon as it is available.
Continue until the person responds or until advanced help arrives.

*CPR technique based on rescuer’s level of training.
When to use Naloxone

**SUSPECTED OVERDOSE**

- **UNRESPONSIVE TO STERNAL RUB**
  - **BREATHING STATUS**
    - NORMAL OR FAST
    - SLOW (< 8/MIN)
    - NONE/GASPING

- **MONITOR PATIENT**
- **NALOXONE**
- **NALOXONE/RESCUE BREATHING/CPR**
What is Narcan (Naloxone)?

Narcan knocks the opioids off the opioid receptors, blocking opioids from the opioid

Temporarily takes away the “high”, giving the person the chance to breathe

Narcan works in 1 to 3 minutes and last 60 minutes

Narcan can neither be abused nor cause an overdose effect

Too much Narcan can cause withdrawal symptoms such as:
- Nausea/Vomiting
- Muscle Discomfort
- Diarrhea
- Disorientation
- Chills
- Combativeness

Only contraindication is known sensitivity, which is extremely rare
Naloxone is a medication used to reverse opioid overdose. It has a stronger affinity to the opioid receptors than opioids like heroin or Percocet, so it knocks the opioids off the receptors for a short time. This allows the person to breathe again and reverses the overdose.
How does Narcan affect overdose?

Restores Breathing
NALOXONE DISPENSED IN SOUTH DAKOTA

- 2018: 323
- 2019: 568
- 2020: 569
- 2021: 653
- 2022 (to March 30): 135

Naloxone Dispensed in South Dakota
Considerations to always remember

Always keep the scene safety as your top priority

Make sure EMS has been dispatched and keep them updated

If the patient does not have a pulse, immediately begin CPR along with administration of Narcan

If the patient is gasping or is not breathing, initiate CPR/Rescue breathing as necessary in addition to Naloxone administration

Naloxone is quick (1-3 minutes) and typically lasts 60 minutes
Administering Naloxone
Administering Naloxone

- Retrieve Package (NARCAN)
- Remove single dose from package
- Remove Foil backing
- Now ready to administer 4mg Intranasally
Nasal Spray Naloxone
Remember:

“Four Rights For Medication Administration”

- Right Patient (Opioid Overdose)
- Right Medication (Naloxone – Check for Clarity)
- Right Date (Check Expiration)
- Right Dose (Spray entire contacts into nostril)
1. Gradually improves breathing and becomes responsive with 3 – 5 minutes

2. Immediately improves breathing, responsive and is in withdrawal

3. Starts breathing with 3-5 minutes but may remain unconscious

4. Does not respond to first dose and Naloxone must be repeated in 3 – 5 minutes (Continue to provide Rescue Breaths)

5. No response to multiple doses of Naloxone
Naloxone Storage

59 -77 degree Fahrenheit

Replace prior to expiration date
Questions and Answers

Will Naloxone work on an alcohol overdose?
No. Naloxone only works on opioids

What if it is a crack/cocaine or speed/methamphetamine overdose?
No. Naloxone only works on opioids

What is the risk period for an overdose to reoccur after giving Naloxone?
Depends on how long acting the opioid is and how much they took

If the person isn’t overdosing and I give Naloxone will it hurt the person?
No. If in doubt give Naloxone
What if a person refuses care and transport after Naloxone is administered?

• Inform the person of the risk of re-overdosing
• Inform the person naloxone is only temporary
• If person still refuses consider the mechanism of injury or Illness
  • Do you believe he/she can refuse treatment with a sound mind and clear understanding of the circumstances? *Remember they just overdosed!*
• If no, the person can not refuse treatment
Special Thanks

To the Massachusetts Office of EMS
For their assistance and use of the Opioid content.