



Department of

Mental Health &

Substance Abuse Services

Trends in Drug Overdose Deaths involving Opioids

Tennessee and the United States
2014 and 2015

Overview

- Purpose: Compare drug opioid-involved overdose deaths involving opioids in Tennessee and the United States
- Time period: Calendar years 2014 and 2015
- Data source: *Rud, R., Seth, P., David, F. & Scholl, L. Increases in drug and opioid-involved overdose deaths-United States, 2010-2015. Morbidity and Mortality Weekly Report, Early Release, December 16, 2016, Centers for Disease Control and Prevention.*
- Tennessee data provided to the Centers for Disease Control and Prevention (CDC) by the Tennessee Department of Health.

Definitions

Opioid categories (ICD 10 codes T40.1-T40.4, T40.6)

- **Heroin**, an illicit opioid synthesized from morphine (ICD-10 T40.1)
- **Natural and semisynthetic opioids** (ICD-10 T40.2)
 - Natural opioids: morphine, codeine
 - Semisynthetic opioids: oxycodone, hydrocodone, hydromorphone, oxymorphone
- **Synthetic opioids** (ICD-10 T40.4)
 - Exclude methadone
 - Examples: tramadol and fentanyl
- **Methadone**, a synthetic opioid (ICD-10 T40.3)

Data note: Overdose deaths can involve more than one opioid so categories of death are not mutually exclusive.

Trends in drug overdose deaths involving opioids from 2014 to 2015

Tennessee

Death rates involving...

- **Synthetic opioids increased 91%**
 - from 2.1 to 4.0 per 100,000 deaths.
- **Heroin increased 44%**
 - from 2.3 to 3.3 per 100,000 deaths.
- **Natural and semisynthetic opioids increased 13%**
 - from 8.6 to 9.7 per 100,000 deaths.

Tennessee and United States increases in death rates were greatest for heroin and synthetic opioids.

% Rate change	Tennessee 2014 to 2015	United States 2014 to 2015
Synthetic	+90.5%	+72.2%
Heroin	+43.5%	+20.6%
Natural/ semisynthetic	+12.8%	+2.6%
Methadone	-9.1%	-9.1%

Natural opioids

- Morphine
- Codeine

Semisynthetic opioids

- Oxycodone
- Hydrocodone
- Hydromorphone
- Oxymorphone

Synthetic opioids

- Tramadol
- Fentanyl
- Excludes methadone

Source: MMWR, Early Release, December 16, 2016, CDC.

Tennessee & United States opioid-involved death rates increased for all categories of opioids but methadone.

Drug overdose deaths involving opioids

Natural opioids

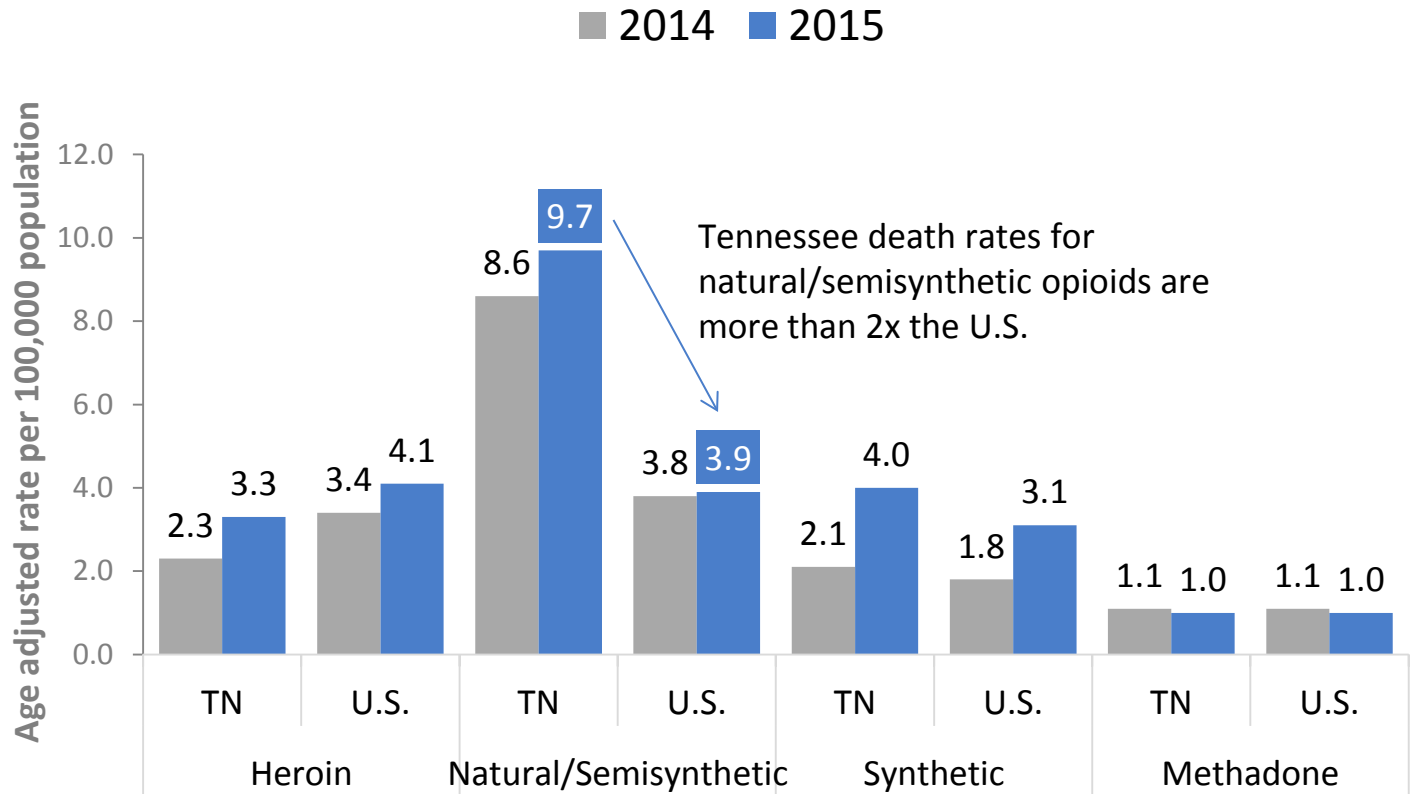
- Morphine
- Codeine

Semisynthetic opioids

- Oxycodone
- Hydrocodone
- Hydromorphone
- Oxymorphone

Synthetic opioids

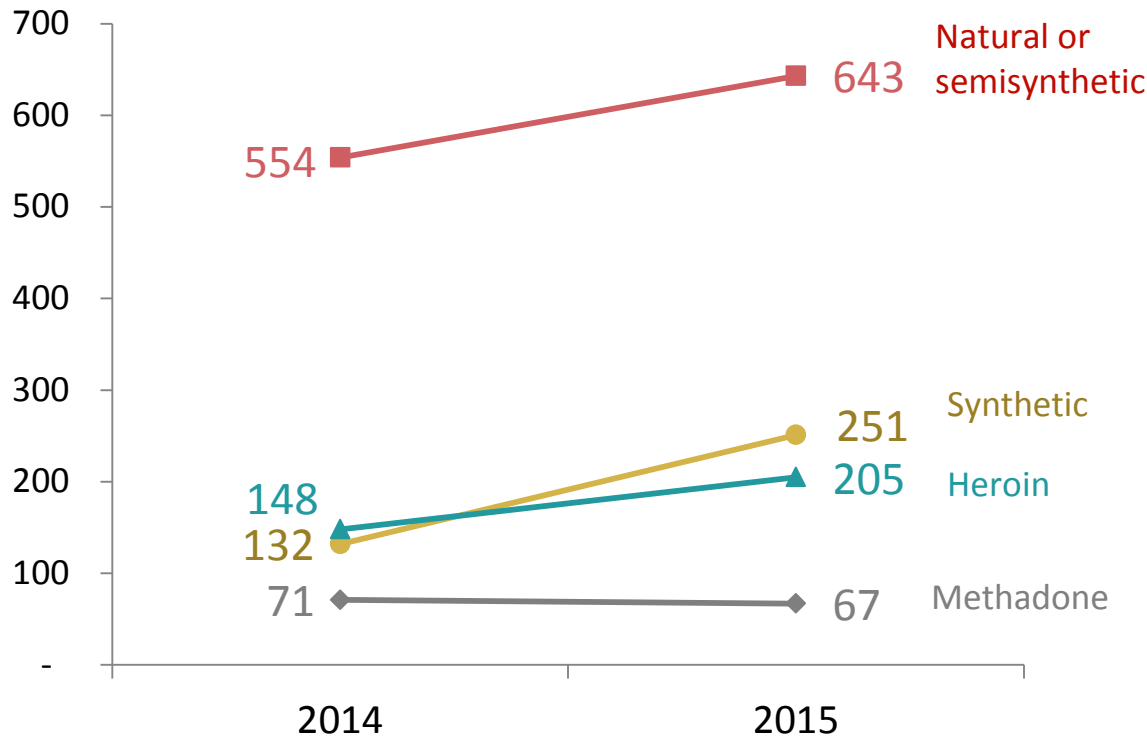
- Tramadol
- Fentanyl
- Excludes methadone



Source: MMWR, Early Release, December 16, 2016, CDC.

Most Tennessee deaths involve natural and semisynthetic opioids.

Tennessee drug overdose deaths involving opioids



Natural opioids

- Morphine
- Codeine

Semisynthetic opioids

- Oxycodone
- Hydrocodone
- Hydromorphone
- Oxymorphone

Synthetic opioids

- Tramadol
- Fentanyl
- Excludes methadone

Source: MMWR, Early Release, December 16, 2016, CDC.