David A. Thomas, Ph.D.
DESPR
NIDA Pain Program Coordinator
NIH Pain Consortium
Disclosures:

Nothing to disclose.
PAIN!!!
PAIN!!!
PAIN!!!
However!
PAIN!!!
Drug Addiction
Drug Addiction
Drug Addiction
Drug Addiction
Marked **Geographic Variation in Mortality**: Estimated Age-adjusted Death Rates for Drug Poisoning by County

1999

*Designed by L. Rossen, B. Bastian & Y. Chong. SOURCE: CDC/NCHS, National Vital Statistics System; Tom Frieden Presentation at the Opioid Summit, Atlanta, April 2016*
Marked **Geographic Variation in Mortality**: Estimated Age-adjusted Death Rates for Drug Poisoning by County

**2002**

Designed by L. Rossen, B. Bastian & Y. Chong. SOURCE: CDC/NCHS, National Vital Statistics System; Tom Frieden Presentation at the Opioid Summit, Atlanta, April 2016

Estimated Age-adjusted Death Rate per 100,000:
- 0.0-2.0
- 2.1-4.0
- 4.1-6.0
- 6.1-8.0
- 8.1-10.0
- 10.1-12.0
- 12.1-14.0
- 14.1-16.0
- 16.1-18.0
- 18.1-20.0
- >20
Marked **Geographic Variation in Mortality**: Estimated Age-adjusted Death Rates for Drug Poisoning by County

*Designed by L. Rossen, B. Bastian & Y. Chong. SOURCE: CDC/NCHS, National Vital Statistics System; Tom Frieden Presentation at the Opioid Summit, Atlanta, April 2016*
Marked **Geographic Variation in Mortality**: Estimated Age-adjusted Death Rates for Drug Poisoning by County

2008

Designed by L. Rossen, B. Bastian & Y. Chong. SOURCE: CDC/NCHS, National Vital Statistics System; Tom Frieden Presentation at the Opioid Summit, Atlanta, April 2016
Marked **Geographic Variation in Mortality**: Estimated Age-adjusted Death Rates for Drug Poisoning by County

2011

*Designed by L. Rossen, B. Bastian & Y. Chong. SOURCE: CDC/NCHS, National Vital Statistics System; Tom Frieden Presentation at the Opioid Summit, Atlanta, April 2016*
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Marked **Geographic Variation in Mortality**: Estimated Age-adjusted Death Rates for Drug Poisoning by County

2016
Nearly 80 percent of people who reported initiating heroin use in the past year had previously abused prescription pain medications…

Americans in Persistent Pain!!

Overdose Deaths Involving Opioids, United States, 2000-2016

100,000,000
IOM, 2011

50,000,000
APS, 1999

“Polarities”

Inhale
Take Risks
Conservative
Big Picture
Think
Fight Opioids

Exhale
Use Caution
Progressive
Detail Focus
Act
Use Opioids
BREAKING NEWS!!!

An additional $2 billion to fund lifesaving research at the National Institutes of Health..
Virtual Reality: Opportunities for the NIH

Lister Hill Auditorium
February 24, 2004
8:30 am – 5:00 pm

This 1-day symposium will feature presentations that describe Virtual Reality (computer-generated stimulus environments) research related to drug abuse, post-traumatic stress disorder, eating disorders, phobias, motor disorders, and pain.

For additional information, please contact:

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Why VR and Pain???

- Emotional component to pain
- Context impacts pain
- Skills can be developed to cope with pain
- Pain can be ignored
- Behavior and exercise can decrease pain
- Activation of various brain areas can decrease pain.
Why VR research ready for mainstream now?
1995: Summary by Administering Institute/Center

![Bar Chart]

- NEI
- NIDCD
- NCI
- NIMH
- NIA

- Projects

- 0 1 2 3 4 5 6
Present:
Summary by Administering Institute/Center
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