Catastrophic Consequences: Preliminary Findings on the Use of Opioids in Rural Communities

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Maine
Rural Health
Research Center

Acknowledgement

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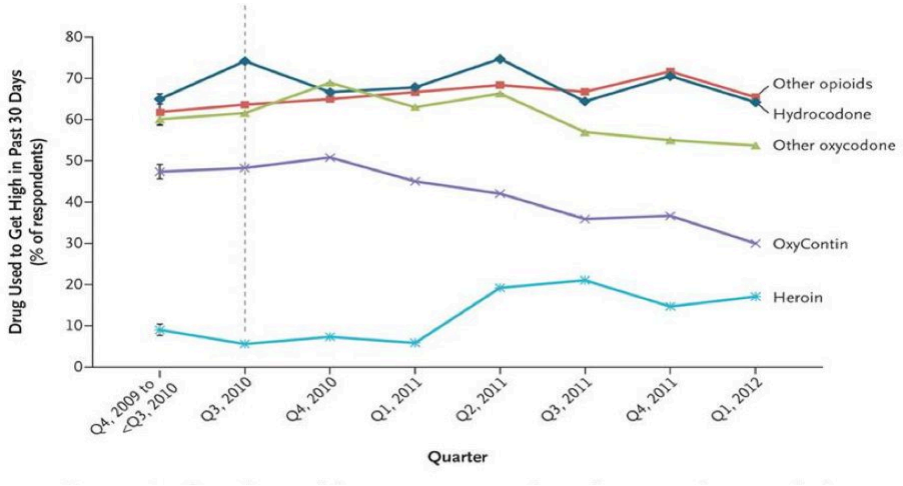
Background

- Opiate use declared a national epidemic
- 2013 CDC data highlight the complexities of over-prescribing controlled substances
  - 16,235 deaths from prescription opioids, up 1% from 2012
  - 8,257 heroin-related deaths, up 39% from 2012
- 2012 National Survey on Drug Use and Health
  - 2.1 million people in the US suffer from substance use disorders related to prescription opioid pain relievers
  - 467,000 addicted to heroin

Complex Problem

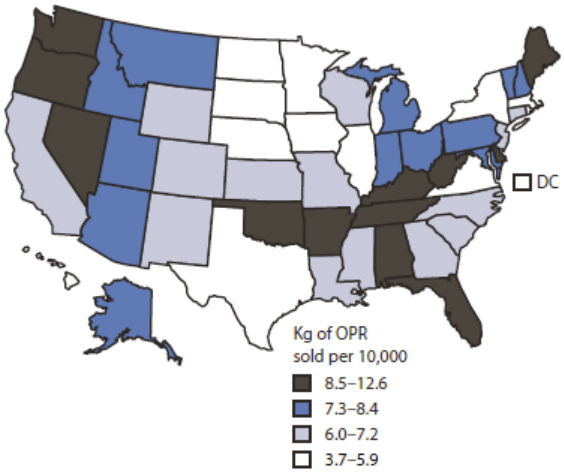
- Evidence suggests a relationship between increased non-medical use of opioid analgesics and heroin abuse in the United States (SAMHSA 2013)
- Confront opioid abuse while preserving the medical role of prescription pain relievers
- # of prescriptions for opioids have increased from 76 million in 1991 to nearly 207 million in 2013 (IMS's National Prescription Audit)
- # of past-year heroin users increased between 2005 and 2012, from 380,000 to 670,000

Link between Prescription Meds and Heroin Use



Presentation by Nora D.Volkow, M.D., Senate Caucus on International Narcotics Control

2010 National Prescribing Patterns- Opioids



Source: Center for Disease Control and Prevention: Morbidity and Mortality Weekly Report

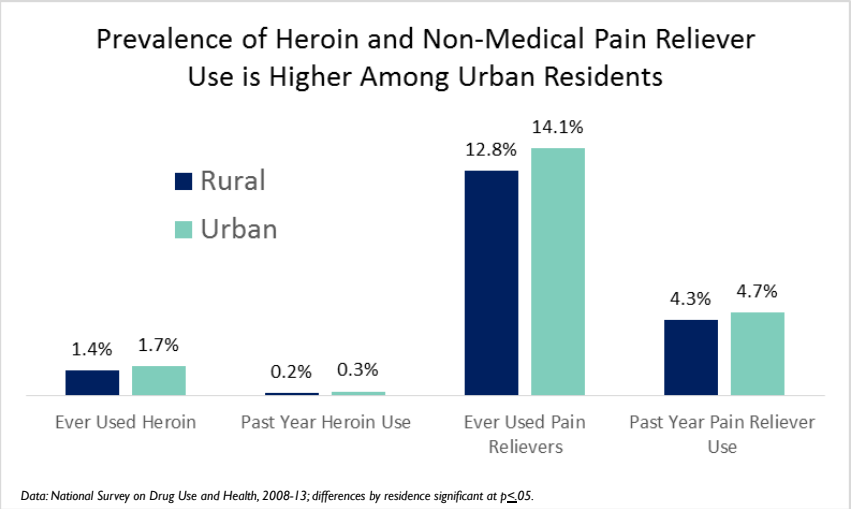
Rural Issues

- Long standing issue in rural communities
- Non-medical use of prescription opiates in rural areas – "Hillbilly Heroin"
- Use of heroin as a substitute for prescription pain killers by those without health insurance – Maine
- Major initiatives– Vermont, Ohio, other rural states
- Heroin is cheap, accessible, and stronger
- Treatment and law enforcement resources are more limited

Methods

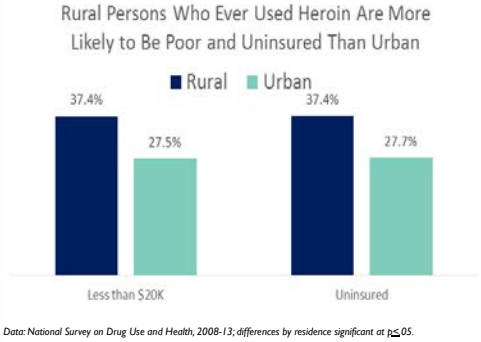
- National Survey on Drug Use and Health, 2008-13.
- Approximately 56,000 respondents each year.
- Rural and urban designation based on the OMB's metropolitan and non-metropolitan variable.
- To date, crosstabs on residence by opioid use, age at first use, sociodemographic characteristics, receipt of treatment, source for pain relievers, and negative behaviors.

Prevalence of opiate use



Data: National Survey on Drug Use and Health, 2008-13; differences by residence significant at p≤.05.

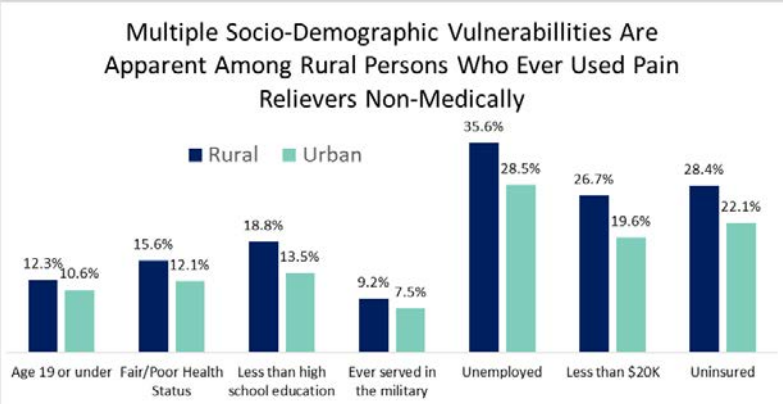
Sociodemographic variation for persons who ever used heroin



Data: National Survey on Drug Use and Health, 2008-13; differences by residence significant at p≤.05.

- Persons who ever used heroin were similar between rural and urban areas on most indicators except for race, income, and insurance status.
- Within rural areas, persons who ever used heroin were more likely to have the following characteristics than those who did not:
  - Ages 20-29 and 30-49, male, white, fair or poor health status, unmarried, less than a high school education, low-income, and uninsured.

Sociodemographic variation for persons who ever used pain relievers – rural vs. urban



Data: National Survey on Drug Use and Health, 2008-13; differences by residence significant at p≤.05.

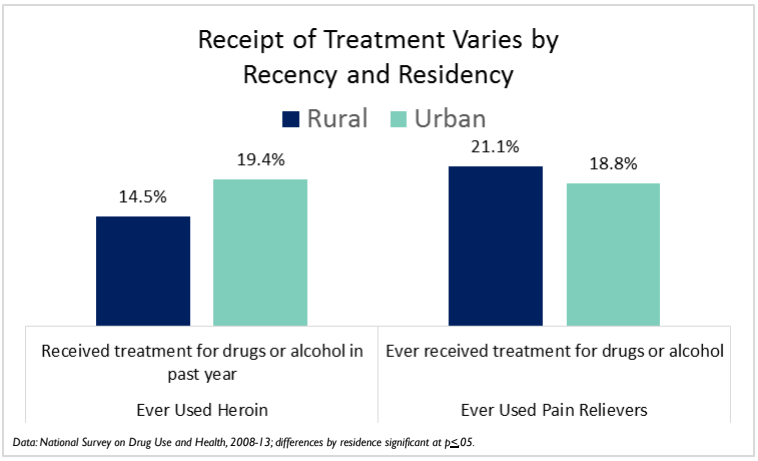
Sociodemographic variation within rural areas

Within rural areas, persons who ever used pain relievers non-medically differed from those who did not:

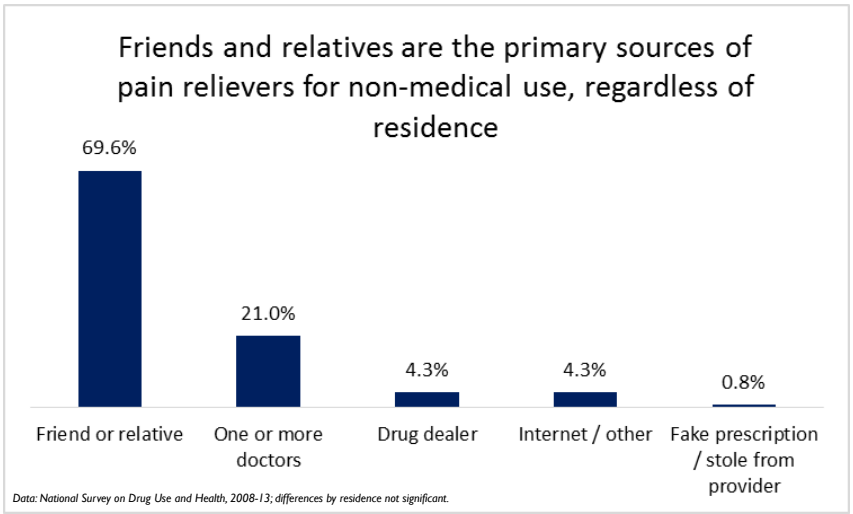
- Ages 20-29 and 30-49
- Male
- White
- Unmarried
- No military service
- Employed
- No college degree
- Low-income
- Uninsured

Data: National Survey on Drug Use and Health, 2008-13; differences by pain reliever use significant at p≤.05.

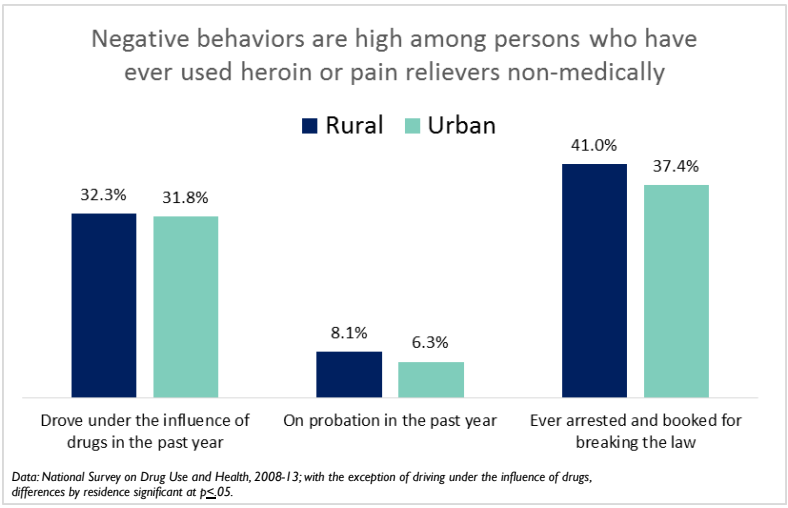
Access to treatment



Sources for pain relievers



Negative behaviors and opioid use



Opiate Treatment Resources

Services	Urban	Large Rural	Small Rural	Isolated Rural
Outpatient Methadone or Buprenorphine	12.3%	5.6%	4.5%	4.1%
Uses Buprenorphine	18.5%	11.1%	9.2%	9.6%
Uses Oral Naltrexone	14.9%	12.8%	12.2%	16.8%
Uses Vivitrol	9.6%	7.1%	9.8%	11.9%
Methadone Detox	7.0%	2.2%	2.0%	0.0%
Methadone Maintenance	10.1%	3.5%	2.4%	1.7%
Source: 2015 SAMHSA Treatment Services Locator				

General Treatment Resources

Services	Urban	Large Rural	Small Rural	Isolated Rural
Inpatient	9.9%	7.8%	3.9%	2.9%
Inpatient Detox	3.7%	2.8%	0.8%	1.2%
Outpatient	58.6%	58.3%	65.0%	71.0%
Day Treatment/Partial Hospitalization	10.1%	6.4%	4.8%	5.8%
Intensive Outpatient	36.2%	33.4%	34.3%	31.9%
Outpatient Detox	8.6%	4.5%	3.6%	3.2%
Detox	15.3%	11.2%	8.3%	7.5%
Residential	21.7%	19.2%	14.5%	15.9%
Residential Detox	4.7%	5.0%	4.2%	3.8%
Halfway House	7.6%	6.5%	4.1%	5.8%
Source: 2015 SAMHSA Treatment Services Locator				

Conclusions & Implications

- Opiate use and treatment in rural areas remain ongoing problems
- Extent of the problem may vary from community to community
- Fear of over-prescribing is impacting use of opiates by primary care providers
- Treatment services are:
  - Less available in rural communities
  - Providers may be less experienced in recognizing and treating opiate abuse
  - Longer travel distances are common

Conclusions & Implications

- Complexity of the problem calls for a multisectoral approach – healthcare, law enforcements, schools, public health, prescription monitoring programs
- More information is needed to understand:
  - How to improve service capacity, particularly for buprenorphine and methadone to manage withdrawal
  - Access issues for prescription meds and heroin
  - How to help providers manage pain issues
  - Reduce unnecessary opiate prescriptions

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WWAMI RURAL HEALTH RESEARCH CENTER

GEOGRAPHIC AND SPECIALTY DISTRIBUTION OF US PHYSICIANS TRAINED TO TREAT OPIOID USE DISORDER

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Disclaimer

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Background

The US is experiencing an epidemic of opioid-related deaths

- Excessive prescribing
- Misuse of prescriptions drugs
- Increased use of heroin

Background

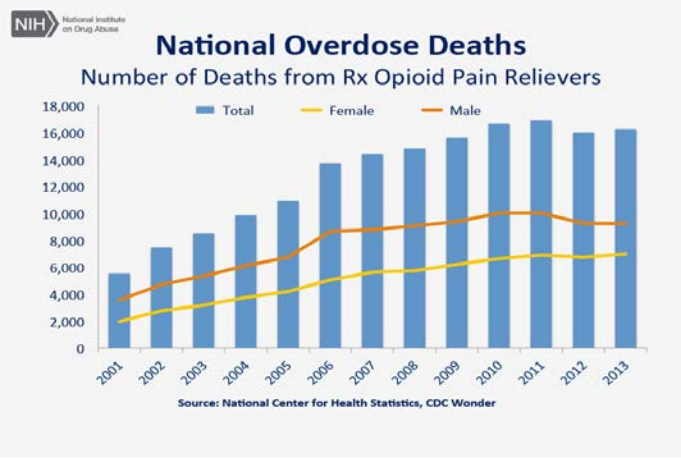
Opioid Use Rates

- In 2013, over 5 million Americans 12 years old and older abused or were dependent on opioids
  - Prescription pain relievers: 4.5 million
  - Heroin: estimated 681,000 past year users, 169,000 past year initiates

Opioid Death Rates

- Death rates from prescription opioid ODs in the US more than quadrupled between 1999 and 2010
- Opioid analgesics were involved in 30% of drug overdose related deaths in 1999, compared to nearly 60% in 2010.

Background



From 2001 to 2013 there was a 3-fold increase in the total number of deaths.

Background

Buprenorphine-naloxone is an effective treatment for opioid use disorder that can be provided in an office-based setting

- To expand treatment options the US Congress passed the Drug Addiction Treatment Act (DATA 2000)
- Allows physicians who complete training to prescribe buprenorphine to treat opioid use disorder
  - Obtain a waiver
  - Year 1 – Allowed to treat up to 30 patients concurrently
  - After 1 year, the physician can apply to have the limit increased to provide treatment to 100 patients concurrently.

Research Questions

WWAMI Rural Health Research Center investigated the distribution of physicians with a DEA waiver to prescribe buprenorphine

- What are the characteristics of physicians that obtain a waiver to prescribe buprenorphine?
- Where are the DEA waivered physicians located?
- Are certain segments of the population lacking access to buprenorphine as a treatment option for opioid use disorder?

Methods

This research used multiple data sources:

- The Drug Enforcement Administration (DEA) DATA Waived Physician List (July 2012)
- The American Medical Association (AMA) Physician Masterfile (2012)
- The US Department of Agriculture's (USDA) 2004 Economic Research Service County Typology data

Methods

- DEA and AMA Data were linked using the provider's DEA number (except in Winconsin)
- The physician's practice ZIP code was used to determine the physician's practice county
- County Level Urban Influence Codes were used to assign all physicians to 1 of 4 geographic categories:

Metropolitan, Adjacent to Metropolitan, Micropolitan, Not Adjacent to Metropolitan, Small and Remote Rural Counties

Results

Gender

Significantly more men than women had obtained a waiver to prescribe buprenorphine

2.4% vs 1.8%, respectively, (p<0.001)

Age

- Physicians <35 years represent 7.8% of workforce but only 2.6% of buprenorphine prescribers
- 2.3% of physicians ≥35 had obtained a waiver
- Almost 3% of physicians aged 55-64 years received a waiver

Number and Percentage of Waivered and Non-Waivered Physicians by Specialty

Specialty	Number (%) of Waivered Physicians with this Specialty	Number (%) Non-Waivered	Total (%)	Percentage of Specialty with a DEA Waiver
Psychiatry	7,584 (41.6)	39,157 (83.3)	46,741 (5.6)	16.2
Family medicine	4,066 (22.3)	108,913 (96.4)	112,979 (13.6)	3.6
Internal medicine	2,618 (14.4)	119,980 (97.9)	122,598 (14.8)	2.1
Anesthesiology	753 (4.1)	44,884 (98.4)	45,637 (5.5)	1.7
Physical medicine and rehab	471 (2.6)	8,441 (94.7)	8,912 (1.1)	5.3
Emergency medicine	370 (2.0)	37,645 (99.0)	38,015 (4.6)	1.0
Other specialty	339 (1.9)	71,891 (99.5)	72,230 (8.7)	0.5
Internal medicine sub-specialties	333 (1.8)	112,155 (99.7)	112,488 (13.6)	0.3
Pain management	279 (1.5)	1,559 (84.8)	1,838 (0.2)	15.2
Surgery and sub specialties	227 (1.3)	116,442 (99.8)	116,669 (14.1)	0.2
Addiction medicine*	182 (1.0)	62 (25.4)	244 (0.03)	74.6
Obstetrics-gynecology	181 (1.0)	41,541 (99.6)	41,722 (5.0)	0.4
Pediatrics and sub-specialties	147 (0.8)	76,449 (99.8)	76,596 (9.2)	0.2
Neurology	147 (0.8)	13,521 (98.9)	13,668 (1.7)	1.1
Missing specialty	528 (2.9)	18,179 (97.2)	18,7007 (2.3)	2.8
Total	18,225 (100.0)	810,819 (100.0)	829,044 (100.0)	2.2

*The American Board of Medical Specialties does not recognize addiction medicine as a specialty, therefore the number of persons listed on the AMA Masterfile as board-certified addiction specialists is in error, and the number of persons dedicating at least part of their practice to addiction medicine is undercounted. The American Board of Addiction Medicine has certified more than 5,000 physicians since 1984. Some 3,000 physicians are members of the American Society of Addiction Medicine. The Center for Addiction Medicine at Columbia University estimates that there are 1,200 addiction medicine specialists and another 300 addiction medicine psychiatrists. Given these unresolved issues, it is impossible to know how many certified addiction medicine specialists have received a DEA waiver.

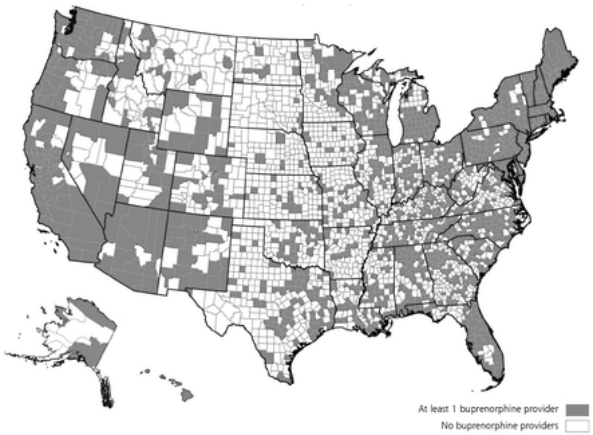
Supply of Physicians with DEA DATA Waivers in US Counties, by Rural-Urban Status

Characteristic	Metropolitan[a] UIC 1-2	Adjacent to Metropolitan[b] UIC 3-7	Micropolitan, Not Adjacent to Metropolitan[c] UIC 8	Small and Remote Rural Counties[d] UIC 9-12	Total
US Population, No. (%)	260,479,400 (83.6)	33,691,096 (10.8)	9,677,339 (3.1)	7,744,082 (2.4)	311,591,917 (100.0)
Counties with ≥1 physicians with waivers, No. (%)	789 (72.4)	419 (39.6)	132 (46.8	125 (17.5)	1,465 (46.6)
Counties with no physician with a waiver, No. (%)	301 (27.6)	639 (60.4)	150 (53.2)	588 (82.5)	1,678 (53.4)
Total counties, No. (%)	1,090 (34.7)	1,058 (33.7)	282 (9.0)	713 (22.7)	3,143 (100.0)
Physicians with waivers per 100,000 residents, No.	6.3	3.3	4.2	3.1	5.8
Physicians with waivers, %	90.4	6.1	2.3	1.3	100.0

DATA = Drug Addiction Treatment Act; DEA = Drug Enforcement Administration; UIC = Urban Influence Code.

Note: counties were classified as urban or into 1 of 3 categories of rural using the US Department of Agriculture UIC.
[a] Counties with an urban core with a population of at least 50,000.
[b] Counties that are geographically adjacent to a metropolitan area whose largest town/urban cluster has 10,000-49,999 residents.
[c] Counties that are not adjacent to a metropolitan area and whose largest town/urban cluster has 10,000-49,999 residents.
[d] Counties whose largest town has fewer than 10,000 residents regardless of proximity to a micropolitan county.

US Counties with physicians with waivers to prescribe buprenorphine.



Note: data source: Drug Enforcement Administration, July 2012. Map date: September 2013.

Results

- A majority of US counties –most of them rural – have no physician with a DEA waiver to prescribe buprenorphine
- 82.1% of counties without a waivered physician were rural counties
- The ratio of waivered physicians to population is much lower in the most rural places compared to metropolitan counties (3.1 and 6.3 physicians per 100,000 residents respectively)
- 30 million people (9.7% of the US population) live in a county without a waivered physician who could prescribe buprenorphine
  - 21.2 million in rural counties and 8.8 million in metropolitan counties

Discussion

- Having a waivered physician in a county does not mean that buprenorphine treatment is available.
- In a study of physicians in Washington State trained to use buprenorphine in 2010-2011 only 28% reported ever prescribing buprenorphine.
- The access problem may be much worse than our data indicate.

Ongoing Research

Who Treats Opioid Addiction in Rural America? Quantifying the Availability of Buprenorphine Services in Rural Areas?

- What proportion of physicians in rural areas with a DEA waiver to prescribe buprenorphine is actually using it in their practices?
- How many patients with opioid use disorder do waivered physicians treat with buprenorphine?
- Are waivered physicians providing treatment to only their own patients, only patients from their practice, or to patients from the community at large?
- What are the primary reasons waivered physicians choose to include office-based opioid treatment in their practice?
- What are the primary reasons waivered physicians are not including office-based opioid treatment in their practice?

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