Thank you to everyone joining us for today’s Michael M. Davis e-Lecture! We would like to allow a few minutes for attendees to join the webinar. Thank you for your patience and we will begin shortly!

The Opioid Crisis and State and Federal Policies: It’s More Complicated than you Think

Bradley D. Stein, MD, PhD
Director, RAND-USC Schaeffer Opioid Policies, Tools, and Information Center of Research Excellence (OPTIC) (NIDA P50)
Funding and acknowledgements

**Funding**
- NIDA P50DA046351
- NIDA R01DA045800
- NIDA R01DA045055

**Acknowledgements**
- Rosalie Liccardo Pacula
- Beth Ann Griffin
- Rosanna Smart
- David Powell
- Rachel Landis
- Megan Schuler

Questions for participants

*What is the opioid crisis and what is driving it?*

*What policy solutions are being suggested to address the opioid crisis?*
Most descriptions of crisis and policy responses fall in one of these buckets

**NEW USERS**
- Prescription limits
- Unused Rx disposal
- Physician education

**MISUSE**
- Drug reformulation
- Pain clinic regulations
- Insurance utilization review
- Prescription drug monitoring programs

**TREATMENT & RECOVERY**
- Better coverage for OUD treatment
- More buprenorphine waivered prescribers
- Patient limits raised

**HARM REDUCTION**
- Naloxone laws
- Good Samaritan laws
- Safe consumption spaces
- Fentanyl test strips

---

Policies may be too narrow or poorly specified

- Many narratives and policy responses focus on only one aspect of crisis
- Many neglect the historical and social context:
  - Stigma
  - Poverty
  - Systemic racism
Opioid crisis is a *Wicked Problem*, creating policy challenges

*Wicked Problems are particularly hard to solve because*

- Impose heavy social and economic burden
- Knowledge of problem is incomplete or contradictory
- Many perspectives and opinions about causes and solutions
- Success is hard to define because wicked problems interact with other social issues
- The problem is constantly evolving

### Today’s Talk

- How might the opioid crisis being a Wicked Problem lead well-intentioned policies to have negative consequences?
- How might effective policies leave existing problems unaddressed?
- How might well-intentioned effective policies actually widen disparities?
- How might these challenges change how we think about designing and studying opioid policies?
Well-intentioned policies can have unanticipated negative consequences

*How do we stop people from abusing prescribed opioids?*

Before 2010, overdose deaths were driven by misuse of prescription opioids.
Oxycontin was most commonly prescribed and misused opioid

Original OxyContin was easy to crush and abuse

Preserves medical benefits

Reduces non-medical abuse
New formula was more difficult to abuse

Preserves medical benefits

Reduces non-medical abuse

OxyContin misuse declined after 2010 when new formulation was released

Rate of OxyContin misuse (%)

Aipert, AEJ Econ Policy, 2018
States with highest initial rates of OxyContin misuse experienced largest increases in heroin overdoses

Number of heroin deaths per 100,000

High-misuse states

Low-misuse states

1999 2001 2003 2005 2007 2009 2011 2013 2015

• Each percentage point reduction in rate of OxyContin misuse led to 3 more heroin deaths per 100,000

~ 80% of increase in heroin mortality since 2010 may be due to reformulation

Number of heroin deaths per 100,000

High-misuse states

Low-misuse states

1999 2001 2003 2005 2007 2009 2011 2013 2015

Alpert, AEJ Econ Policy. 2018
Policies don’t always address existing problems

*Increasing available buprenorphine care*

---

**Inadequate access to effective Opioid Use Disorder treatment**

- Most people who need treatment don’t get it
- Even fewer receive medication for opioid use disorder
- Access worse among Blacks and Hispanics
- Quality of treatment as important as access
- Policies have focused primarily on increasing treatment access, not:
  - Quality
  - Disparities
Quality of care for Medicaid enrollees receiving buprenorphine

• Very effective treatment for OUD, prescribed only by trained clinicians
• Only effective with adequate dose and duration of treatment
• Using 2006-2014 multistate Medicaid claims examined 317K buprenorphine treatment episodes for 240K individuals
• Outcomes: indicators of buprenorphine treatment quality
  • Treatment duration
  • Adequate dosage
  • No concurrent opioid analgesics

Did quality vary by race/ethnicity?

Duration of buprenorphine treatment increased
Treatment duration for Blacks and Hispanics lower

Most patients received adequate buprenorphine dose
Percentage of Blacks receiving adequate dose was lower

Percentage of patients receiving concurrent opioids declined
But was generally higher in Black and Hispanic patients

Effective policies may inadvertently worsen disparities if that is not their focus

Medicaid expansion under Affordable Care Act
Under ACA, states could expand Medicaid eligibility for those with incomes <138 of federal poverty level

• In 2014, 25 states expanded Medicaid; 37 states by 2020
• Individuals with substance use disorders disproportionately gained eligibility
• Medicaid paid for more SUD treatment, including treatment for opioid use disorder

Did Medicaid expansion help all populations equally?

Did ACA affect disparities in buprenorphine access?

• Used 2007-17 ARCOS data, which tracks buprenorphine shipped to communities nationwide
• At 3-digit ZIP code level, examined per-capita distribution of buprenorphine
• Categorized ZIP 3 into quintiles, based on % of population that was racial/ethnic minority
• Regression controlled for other factors likely to be associated with buprenorphine use (% under 18, with high school diploma, with college degree, households below poverty line, unemployed, under 65 uninsured, urbanicity, fatal overdose rate)
Magnitude of change in growth of buprenorphine much greater in expansion states

![Graph showing the comparison between Non-Expansion States (N=332 ZIP3s) and Medicaid Expansion States (N=551 ZIP3s) in terms of buprenorphine distributed (grams per capita)].

**Schuler, under review.**

ACA widened disparities

![Bar chart showing the comparison between Non-Expansion States and Medicaid-Expansion States in terms of buprenorphine distribution rate before and after ACA].

**Schuler, under review.**
Implications as we consider policies to address Wicked Problems

- Remember other social issues interact with Wicked Problems
- Beware of simple answers
- Don’t assume policies will produce change if not focused on desired outcomes
- Disadvantage populations most at risk for not benefitting
- Even effective policies can widen disparities
- No silver bullets

Thank you Questions?

Bradley Stein
Stein@rand.org