The Epidemic of Pain and Unintentional Opiate Overdose Deaths

Robert Twillman, Ph.D.
Deputy Director and Director of Policy and Advocacy
American Academy of Pain Management
Clinical Associate Professor of Psychiatry
University of Kansas School of Medicine
Pain is a Major Public Health Issue

- Chronic pain affects at least 100 million American adults
- Chronic pain costs up to $635 billion per year in medical treatment and lost productivity
- Compared to people without chronic pain:
  - People with chronic pain have roughly 3 times the rates of depression and anxiety disorders
  - People with chronic pain have at least two times the risk of completing suicide

Institute of Medicine Report, 2011
## How Big is This Issue?

<table>
<thead>
<tr>
<th>Problem</th>
<th>Number Affected</th>
<th>Annual Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chronic Pain</td>
<td>100 million</td>
<td>$635 billion</td>
</tr>
<tr>
<td>Diabetes</td>
<td>17.5 million</td>
<td>$174 billion</td>
</tr>
<tr>
<td>Cancer</td>
<td>11.7 million</td>
<td>$264 billion</td>
</tr>
<tr>
<td>Heart disease, stroke, Congestive heart failure</td>
<td>27.1 million</td>
<td>$197 billion</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>56.3 million</strong></td>
<td><strong>$635 billion</strong></td>
</tr>
</tbody>
</table>
Prescription Opioid Abuse is a Major Public Health Issue

- 2012 National Survey on Drug Use and Health (NSDUH):
  - 37 million Americans (14.2%) ≥ 12 years old had used a pain reliever non-medically at least once in their lifetimes (26% increase from 2002)
  - 12.5 million Americans (4.8%) ≥ 12 years old had used a pain reliever non-medically at least once in the past year
Prescription Opioid Abuse is a Major Public Health Issue

- Among those initiating substance use in the past year, pain relievers ranked 4th as the drug of choice (behind alcohol, tobacco, and marijuana)

- 2.1 million (0.8% of US population) had DSM-diagnosable dependence or abuse of pain relievers in the past year

- Prescription drug abuse costs the US up to $70 billion per year in healthcare costs alone (Money magazine)
NSDUH: Past Year Non-Medical Use and Opioid Use Disorder

Percent of US > 12 Years Old (Old)

Past Yr NMU: 4.7, 4.9, 4.7, 4.9, 5.1, 5.0, 4.8, 4.9, 4.8, 4.3, 4.8
Past Year OUD: 0.6, 0.6, 0.6, 0.6, 0.7, 0.7, 0.7, 0.8, 0.7, 0.7, 0.8

NSDUH Data Are Unclear

- Definition of “nonmedical use” is problematic
- Defined as:
  - Using pain relievers that are not prescribed for you (“medical misuse”) OR
  - Taking it just for the experience or feeling it caused (“recreational misuse”)
- We don’t know the ratio of one to the other—"medical misuse” may result from inadequate pain management
Sources of Misused Drugs, NSDUH 2012

Source of Pain Relievers for Most Recent Nonmedical Use, Past Year, Users 12 or Older

- Free from friend/relative: 55.0%
- One doctor: 20.1%
- Bought/took from friend/relative: 15.2%
- Drug dealer/stranger: 4.4%
- Bought on internet: 0.2%
- Other: 5.2%

“Other” includes “Wrote Fake Prescription”, “Stole from Doctor’s Office/Clinic/Hospital/Pharmacy”, and “Some Other Way”
Prescription Opioid Abuse is a Public Health Issue

- 2010 Drug Abuse Warning Network data (DAWN; ED visits):
  - 425,247 had opioid analgesics on-board (194% increase from 2004)

- 2011 Treatment Episode Data Set (TEDS):
  - Non-heroin opioids were primary drug of abuse for 186,986 patients entering substance abuse treatment nationwide (396% increase from 2001)
Drug Treatment Admissions, Non-Heroin Opioids as Primary Drug

# of Admissions

- 1996
- 1997
- 1998
- 1999
- 2000
- 2001
- 2002
- 2003
- 2004
- 2005
- 2006
- 2007
- 2008
- 2009
- 2010
- 2011

# of Admissions: 0, 20,000, 40,000, 60,000, 80,000, 100,000, 120,000, 140,000, 160,000, 180,000, 200,000, 220,000,
Substance Abuse Treatment Admissions: Rx Opioids, 2007

Only 8 states had a lower rate of treatment admissions for prescription opioids
Recent Survey

- Teen-agers now say it is easier to get prescription drugs than it is to get beer

National Center on Addiction and Substance Abuse, August 2008
Prescription Drug Misuse is Dangerous

- MMWR, November 2011, reporting numbers from 2008:
  - 36,450 deaths due to drug overdose
  - 27,153 had specific drug named
    - 20,044 involved ≥ 1 prescription drug
      - 14,800 included an opioid analgesic
But Prescription Opioids Shouldn’t Get ALL the Blame

- Previous CDC research shows 72.3% of “opioid overdoses” had multiple drugs present, not counting alcohol
- Hall (2008) studied overdose deaths in West Virginia
  - 79% of people dying of overdoses involving opioids tested positive for other drugs
  - 56% of cases had no prescription for an opioid
Drug Overdose Death Rates, 2008 (per 100,000 population)

New Mexico had the highest rate of drug overdose deaths (all drugs)
FIGURE 2. Rates* of opioid pain reliever (OPR) overdose death, OPR treatment admissions, and kilograms of OPR sold — United States, 1999–2010

* Age-adjusted rates per 100,000 population for OPR deaths, crude rates per 10,000 population for OPR abuse treatment admissions, and crude rates per 10,000 population for kilograms of OPR sold.
Authors state:

“During 1999-2008, overdose death rates, sales, and substance abuse treatment admissions related to OPR increased in parallel”

“Increased use of OPR has contributed to the overall increases in rates of overdose death and nonmedical use…”
Non-Medical Use and Opioid Sales

Non-Medical Use in 2008 for ≥ 12 y/o in percent; Sales in kg/100,000 population in 2010
This begs the question:

Why are death rates in New Mexico twice as high as the national average despite no difference in non-medical use and significantly lower opioid sales?
How Do We Explain This?

**FIGURE 2. Rates** of opioid pain reliever (OPR) overdose death, OPR treatment admissions, and kilograms of OPR sold — United States, 1999–2010

*Age-adjusted rates per 100,000 population for OPR deaths, crude rates per 10,000 population for OPR abuse treatment admissions, and crude rates per 10,000 population for kilograms of OPR sold.*
Another CDC Observation

- Prescription opioids misused ≥ 200 days per year rose from 2.2/1000 in 2002-03 to 3.8/1000 in 2009-10 (74.6% increase)

- Increase was:
  - 105.3% among men
  - 81.0% among 26-34 year-olds
  - 134.6% among 35-49-year-olds

Perhaps…

…it’s not the case that more people are dying because more people are misusing, but because people are misusing more (or more often, or in different ways, or all of the above)
Implications for Clinical Practice

This pattern in the data suggests that, while prevention is still important, the single most effective means of preventing people from dying of an overdose involving opioid pain relievers may be detecting and treating existing misuse/abuse/addiction.
The Role of Methadone

- CDC researchers also note that methadone accounted for only 2% of opioid prescriptions in 2009, but was involved in more than 30% of overdose deaths.

The Role of Opioids in Pain Management

- **Acute Pain:**
  - Extremely useful
  - May need very high doses at first, but can usually taper and stop as cause heals
  - Along with anti-inflammatories (ibuprofen, aspirin, naproxen), one of the mainstays of treatment
  - Occasionally other medications can help
The Role of Opioids in Pain Management

Chronic Pain:
- Sometimes useful; sometimes harmful
- Some people need high doses for long periods of time; others need none
- Anti-inflammatories may help, but much less likely; can produce harm as well
- Other medications (antidepressants, seizure medicines) often used and can be very helpful
The Risks of Long-Term Opioid Therapy

- Addiction is a known risk factor, one that is very significant, and should be neither denied nor ignored
- Hormonal and immunological changes are associated with long-term use
- Central sleep apnea can be a fatal adverse effect
- Opioid-related hyperalgesia may occur
The Benefits of Opioids in Pain Management

- There is little good research evidence that opioids work for chronic pain of all types.
- But, the absence of evidence is not evidence of absence.
- We know that some patients DO benefit from this treatment, while others do not.
- Benefits include improved function, quality of life, and productive employment.
What Are the Ethical Obligations?

- Healthcare providers are obligated:
  - To prevent, diagnose, and treat uncontrolled pain
  - To prevent, diagnose, and treat substance use disorders
  - To do both of these in ways that provide maximum benefit and minimum risk
- Doing this is a tall order
Getting to Good Policy Solutions

To get the right answers, we have to ask the right questions
The Right Question about Opioids for Chronic Pain

The wrong question is, “Should we use opioids to treat chronic pain?”

The right question is, “In which patients should we use opioids, at what doses, for how long, with which adjunctive treatments, and with what precautions?”
How Can We Address Prescription Drug Abuse?

- Drug control efforts since the Nixon Administration have focused on controlling supplies.
- This has cost over $1.5 trillion and substance abuse rates have not changed.
- “Squeezing the balloon” effect.
- Reducing supplies affects both legitimate and illegitimate use.
The Right Question about Prescription Opioid Supplies

- “How can we reduce the supply of prescription opioids?” is the wrong question.
- The right question is, “How can we reduce the EXCESS supply of prescription opioids?”
- How do we define “excess”? 
Excess Supplies for Acute Pain

- Emergency rooms should have a guideline for how to address chronic pain
  - Washington and Ohio have instituted guidelines for emergency departments
Excess Supplies for Acute Pain

- Urgent care and inpatient settings should be cognizant of proper prescribing
  - Check PMP to determine existing supplies still at home
  - Have a taper schedule if necessary
  - Only prescribe enough to get to the follow-up appointment
- Educate about medication safety and security
Excess Supplies for Acute Pain

- Dentists get a bum rap
- Data indicate that they write more prescriptions for 12-19 year-olds than any other specialty
- However, out of all the specialties, they write for the fewest DOSES
- Dental board should engage providers in discussions about dosing guidelines
Revisiting the Role of Opioids for Chronic Pain

Need to de-emphasize the role of opioids in pain management. They are necessary but we need other tools as well:

“Within the context of an integrative model of care, the Academy recognizes the effectiveness of opioids as part of a comprehensive treatment plan for some people who experience chronic pain. When prescribed judiciously by clinicians who are well educated about prescribing these medications, and taken as directed by patients who are well informed about these medications, opioids may be useful in reducing pain and restoring function.”
De-Emphasizing Opioids

- “If all you have is a hammer, every problem looks like a nail.” Abraham Maslow

We need more tools. This requires:

- More basic medical education content
- Extensive continuing education
- Available providers
- Access to referral networks
- Adequate reimbursement
Regulating Pain Clinics

- Several states have developed new laws and rules for pain clinics as a means to close pill mills
- Need to remember that pill mills are not pain clinics
- Pill mills are already illegal; we have an enforcement challenge, not a law challenge
Regulating Pain Clinics

- States with these laws are seeing significant problems with access to care
  - Primary care physicians are afraid of being labeled as “pain clinics”, so drop patients to avoid that label
  - Some pain clinics choose to close because of the onerous nature of the regulations
  - Some pain specialists wind up being excluded BECAUSE of their experience
Regulating Pain Clinics

- Over-regulation discourages the kind of clinic we need more of
- Only 34 board-certified pain management specialists in New Mexico, 9 outside Albuquerque and Santa Fe
- See article in Summer 2012 issue of *Journal of Medical Regulation* for suggestions if this angle is to be pursued
Medication Security

- People using opioids at home need to be educated about proper medication security
- “Treat your opioids like they are cash”
- Locking them away is a great idea
  - Possible public/private partnerships to provide lock boxes?
- Public education is vital
Medication Disposal

- Disposing of expired, unused, unneeded medications is extremely important
- Confusion about proper disposal methods
- DEA Drug Take-back Days are nice start
- DEA recently issued preliminary rules for ongoing disposal
- Need readily-available disposal sites
Where Do We Find Our Solutions?

- We need to finish the diagnostic workup before prescribing the treatment: What do we know, and still need to know, about:
  - Phenomenology of addiction?
  - Phenomenology of overdose deaths?
  - Availability of addiction treatment?
  - Cultural factors involved in the problem?
  - Problematic patterns of prescribing?
Where Do We Find Our Solutions?

- Need to address the “demand side of the equation”:
  - Increase addiction treatment availability
  - Increase availability of effective prevention programs
  - Improve quality and availability of pain management services
Where Do We Find Our Solutions?

- Need to address the “supply side of the equation”:
  - Change prescribing patterns if applicable
  - Public education: lock up medications
  - Drug take-back programs
  - More effective use of PMP
Utah’s Zero Unintentional Deaths Campaign

- Project spearheaded by Dr. Lynn Webster
- Focused on various interventions to reduce unintentional overdose deaths
- www.yourlifesource.org
- Described in *Pain Medicine*, (12, supplement 2, June 2011)
- Demonstrated success in Utah
Project Lazarus

- Community-based program in North Carolina
- Emphasizes community engagement
- Also focuses on using the PMP and managing pain effectively
- Distribution of naloxone as a rescue medication
- projectlazarus.org
What is the Way Forward?

- Get the right answers by asking the right questions
- Determine root causes and address them
- Supply-side-only solutions will likely not work and will likely harm people with pain
- Involve ALL stakeholders
- Try to avoid legislating medical practice
- Public education is VERY important
Questions?