A Deadly Grip Wisconsin's opioid scourge: Its origins and possible solutions

By Ike Brannon and Devorah Goldman

he nation is enmeshed in a drug abuse problem that appears unmatched in our country's history, and Wisconsin has keenly felt its effects.

The statistics are staggering. Today, nationwide, deaths from drug overdose — mainly caused by opioids — exceed 16 per 100,000 people. In West Virginia, the rate is over 41 per 100,000; in New Hampshire, it's over 34. By comparison, at the height of the heroin crisis following the Vietnam War and during the crack epidemic of the late 1980s, deaths from drug overdose peaked at 1.5 to 2 people per 100,000.

In Wisconsin over the past decade, the rate of opioid overdose deaths nearly doubled — from 5.9 deaths per 100,000 in 2006 to 10.7 deaths per 100,000 in 2015.

The number of Wisconsinites who die per year from a drug overdose exceeds the number who die from motor vehicle crashes, suicide, breast cancer, colon cancer, firearms, influenza or HIV.

The Wisconsin Legislature and the Walker administration have taken steps to combat the opioid crisis, which is exacting a high toll in Wisconsin in both human and monetary costs.

The Badger state's drug epidemic

Drugs typically reach rural Wisconsin via Chicago. Many big-city smugglers find the relative safety of selling drugs in smaller communities such as Superior appealing and profitable. There are few dangerous rivalries, and the lack of competition means dealers can charge more to a — sadly — growing number of people willing to pay. The long string of middlemen between dealers in Chicago and small towns in Wisconsin also makes it harder for authorities to track suspects. So the trade thrives, and entire communities — down to the youngest among us — suffer.

In the past few years, the number of babies born in Wisconsin with physical dependence on opioids, a condition known as neonatal abstinence syndrome, quadrupled — with nearly 1% of all infants showing signs of NAS. Symptoms include low birth weight, seizures, respiratory distress syndrome and feeding difficulties.

The cost of treating NAS is astronomical. A study published last year in the *Wisconsin Medical Journal* reported that newborns with NAS spend an average of 16 days in the hospital, with a typical charge of \$45,000, a good portion of which goes on the government's tab. Further, NAS is associated with a higher probability of long-term health issues.

WHAT ARE OPIOIDS?

Opioids are a class of drugs that include the illegal drug heroin as well as prescription pain medications such as oxycodone (OxyContin), hydrocodone (Vicodin), codeine, fentanyl, methadone and morphine. They work by binding to receptors on nerve cells in the body and brain, thus reducing pain messages to the brain and diminishing feelings of pain.

ROBERT HELF ILLUSTRATION

Slow descent into darkness

For Madison woman, opioid abuse made pain disappear, but it hijacked her life

By Jan Uebelherr

Think of a snake.

It's quiet. It moves slowly, steadily, almost imperceptibly. It wraps itself around its prey, tightening its grip as the prey weakens.

To understand the anatomy of opioid addiction, think of the snake.

t the height of her heroin addiction, Skye Tikkanen's day began like this: "Every morning for five years, my first thought was, 'How am I going to use?'

And my second thought was, 'I hate my life.' "It's like you're not in charge of your brain anymore. It's a horrible, horrible way to live." Skye Tikkanen

ALLEN FREDRICKSON PHOTO

Children, teenagers and young adults in Wisconsin are suffering, too. In Milwaukee County, four toddlers died from opioid overdoses last year. In northern Wisconsin, a 4-year-old suffered permanent brain damage in a car accident after his father passed out from an overdose while driving. In 2013, 15 percent of all Wisconsin high school students reported having used prescription drugs, such as the extended-release opioid painkiller OxyContin, for non-medical purposes.

Hospitalizations of young people for problems related to drug abuse have been rising in Wisconsin for years — nearly quadrupling from 2003 to 2012 among individuals ages 12 to 25. And many of them will never get well.

Deaths from heroin overdose have tripled in Wisconsin since 2010 — with 281 such deaths in 2015. Nationwide, there has been a stark increase since 2013 in deaths from fentanyl overdose. While often mistaken for heroin, fentanyl is a synthetic opioid that is around 100 times more potent than heroin. In Milwaukee County alone, 97 people died from fentanyl poisoning in 2016, a 223 percent increase from the previous year.

So far this year, 57 people in Milwaukee County have died from opioid overdoses. In April, two deaths in the county were linked to carfentanil, an opioid used to sedate large animals that is 100 times more potent than fentanyl and 10,000 times more potent than morphine. It is sometimes added to heroin to increase potency.

The drug problem in Wisconsin is an increasing threat to both the health of individuals and the welfare of the state. Grasping the scope of the epidemic is crucial, but it is also important to understand how the drug problem began in order to craft effective solutions.

How did we get here?

In the mid-1990s, a number of medical groups began agitating for sufferers of chronic pain to be treated with opioid medicines. These efforts yielded significant changes in prescribing practices, and from 1991 to

Over time, it works less well. That diminishes until you're in a place way darker than where you started. — Skye Tikkanen

The road to that place was nearly perfectly paved. She had a family history of substance abuse — mostly alcohol — not by her parents but by her grandparents and great-grandparents.

She also has a painful genetic disorder affecting collagen in her joints. The disorder also affects blood flow to the brain, leading to anxiety. On top of that, she comes from a line of big achievers.

"My family is really smart, really accomplished," Tikkanen says. "And there was a lot of pressure." Her great-grandmothers went to college and were businesswomen at a time when that was rare. "They've all been trailblazers," she says. "In my head, I was like, 'I have to do this or I'm letting a lot of people down.' A lot of anxiety centered around getting straight As, getting the lead in the school play."

Her father is a technical editor and novelist, and her mother is an evolutionary biologist whose work took the family all over the country for research and teaching positions. "Depending on who my mom wanted to research with, or what animal she was studying, our family just went to wherever," she says.

They lived in New Hampshire, New Jersey, New York, Mas-

sachusetts and Maryland.

How her addictions began

Tikkanen's addictions took hold while the family lived in Baltimore. At the time, Baltimore had emerged as the heroin capital of America, in a drug epidemic that was about to creep steadily across the country.

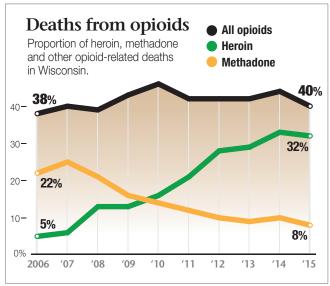
Tikkanen started to experiment with alcohol when she was 12. She'd siphon off a bit of crème de menthe from her parents' liquor cabinet during slumber parties. It was easy to steal just a bit. It wouldn't be noticed the way a can of beer or two would be.

She moved on to marijuana. "I didn't like pot very much. It made me anxious. It made me eat a lot. Neither of those things were fun. I moved on from that pretty quickly," she says.

Around age 15, she started exploring the rave scene in the D.C. area. "There was cocaine and Ecstasy and ketamine," she says. Ketamine is similar to tranquilizers.

She used them all, and her parents didn't know. "I still did well in school. On paper, I was a really good kid — good

2013, opioid prescriptions tripled nationwide. What followed was utterly predictable, in retrospect:



Sources: Wisconsin resident death certificates, Division of Public Health and Wisconsin Department of Health Services

grades. So it would be easy to overlook that so much was going wrong in my life. I was in pain all the time. My body always hurt. I was always anxious," she says. "And so drugs gave me an escape."

She adds, "At that age, you can feel pretty invincible." She felt in control. Besides, everything in her life seemed to be going great.

She worked at family restaurants owned by her grandparents and was excelling in school. "It didn't seem like it was hurting me," she says. "And it wasn't a daily thing. Sometimes it wasn't even a weekly thing. And I was the one who kept other friends in check. 'You're using too much, I'm worried about it, I think you need to get into rehab.' "

Finally, her best friend did just that. In rehab, the friend met a guy and introduced him to Tikkanen. They began dating. He was a few years older and was a deejay. "In my 17-year-old brain, I thought he was cool," she says.

A year into the relationship, she found out he used heroin. She hit the roof and gave him an ultimatum. "It's me or the drugs. Pick one," she says.

His reply: "It's you. But for my last time, use with me."

He had to talk her into it, but she relented.

"For the first time, I was not in any pain. And all of my anxiety went away, and I just felt good and happy," she says. "People who don't have health issues probably feel like that normally. As the everyday use of opioids increased, so did abuse. From 1999 to 2015, the drug-poisoning death rate in the United States nearly tripled, with deaths related to heroin and other opioids accounting for 75 percent of these, according to the National Center for Health Statistics.

Initially, from 1999 to 2009, heroin death rates remained low while opioid death rates were rising rapidly. That changed in 2010: Heroin death rates quadrupled over the next four years.

Evidence suggests that the change resulted from Purdue Pharma's reformulation of OxyContin. In August 2010, the drug manufacturer replaced OxyContin with an abuse-deterrent formulation that made it significantly more difficult to extract the full dose of oxycodone, the drug's opioid component. This made the drug far less appealing to abusers and led many to shift to a readily available and cheaper substitute: heroin. The reformulation coincided with an increased supply of heroin entering the United States from Mexico.

For me, it was a very new and novel experience." And so her five-year addiction to heroin began.

Heroin abuse escalates

"In the first six months, it was once a week. Then it was twice a week. Then every other day," she says. "And then it was like we didn't use on Tuesdays. And then it was every day and multiple times a day."

Her boyfriend had a trust fund. "So money wasn't a big issue," she says. And Baltimore reigned as America's heroin capital, "so it was easily available. Not hard to pay for, not hard to get."

Her boyfriend became abusive and controlling, she says. Her health suffered, too. She had an infection from drug use and nearly lost one of her legs.

"When I was 22, I realized if I stayed in the relationship, either he was going to kill me or the drug was going to kill me," she says. "It became clearer and clearer — I was going to die."

By then, her family had moved to Canada. She moved there, promising herself that she'd never be in an abusive relationship or use heroin again. She found that her younger sister was heavily into meth.

"She wanted me to go out with her friends," she says. "So then I started using meth."

To fund her use, Tikkanen turned to fraud — credit card, checks, mail. "That's what people were doing there," she says.

She was arrested seven times in Vancouver. She spent time in jail and an immigration holding facility.

Finally, she was told to leave the country. Barred from returning for two years, she was driven over the border and dropped off on American soil with a trash bag full of her clothes.

By then, her parents had moved to Madison. They sent her a bus ticket. "I rode a Greyhound bus with a



On paper, I was a really good kid – good grades. So it would be easy to overlook that so much was going wrong in my life. I was in pain all the time. And so drugs gave me an escape. bunch of Amish people and thought a lot about what I wanted my life to be," she says. "I made the decision I was going to be honest with my family, seek help."

Her sister already had done that. She'd moved to Madison six months earlier and gotten into a recovery program at Connections Counseling.

"She was the person who never gave up hope on me," says Tikkanen, who began the hard work of recovery.

"I was honest with my parents. My mom cried a lot," she says.

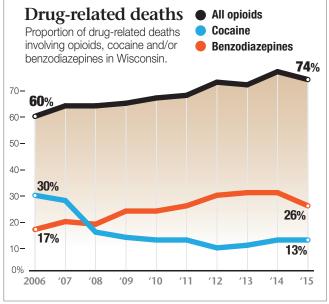
At Connections, she got into group sessions. After her first meeting, the director approached her and told her she'd be a great counselor, that

— Skye Tikkanen

if she went to school and became qualified, she'd hire her.

This seemed unlikely to Tikkanen. But she began mentoring. "After some time, that suggestion didn't seem so crazy," she says. She went to school and got a bachelor's degree in social work, then a master's degree in community mental health.

At age 37, she's the mother of two, clean for 14 years and a counselor at Connections for the past 11 years.



Sources: Wisconsin resident death certificates, Division of Public Health and Wisconsin Department of Health Services

"I knew that I could get higher faster, with something that would cost a lot less," said Mandy, a Fond du Lac County woman profiled in a Wisconsin Department of Justice initiative to raise awareness. She began taking her grandmother's OxyContin around age 19 and sharing it with friends. Later, she tried heroin and immediately became addicted — like so many others.

What can Wisconsin do?

Multiple factors have caused the opioid problem to metastasize in Wisconsin and across the country over the past decade, and it undoubtedly has a sociological component — economic hardship and other cultural shifts.

As Christopher Caldwell noted in his article, "American Carnage: The New Landscape of Opioid Addiction," published in *First Things* in April, the "addict is, in his own, life-damaged way, rational. He's too rational. ... Addicts, in their own short-circuited, reductive and destructive way, are armed with a sense of purpose." Conversely, Caldwell observed, American society lacks the assurance and tenacity to confront any number of unpleasant truths, including that of widespread drug addiction.

Seeing the problem clearly as a disease with moral, economic and spiritual roots may be key to any attempt to address it effectively. And combating drug addiction requires understanding how to reach people struggling with it. Since the drug problem is multifaceted, it is encouraging that the state's approach is multifaceted as well. Progress is being made.

In January, Gov. Scott Walker called for a special session on the opioid epidemic. A package of legislation is making its way through committees in Madison. The bills follow 17 measures already signed into law as part of the state's HOPE (Heroin, Opioid Prevention and Education) agenda, which has seen bipartisan support.

Last year, the Wisconsin Department of Health Services declared the state opioid epidemic a public health crisis. The governor created a Task Force on Opioid Abuse that has embraced the use of medication-assisted treatments such as buprenorphine to provide more options for first responders and counselors.

The task force is seeking to allow school personnel to administer drugs such as naloxone, an "opioid blocker" commonly called Narcan, in the case of a suspected overdose. The

Wisconsin Trends

GENDER

Rates of opioid overdose are higher among men than women.

AGE

For men, opioid overdoses are highest among those ages 25 to 34. For women, opioid overdoses are highest among those ages 35 to 54.

OPIOID TREATMENT

Hospital visits involving opioid acute poisoning (including overdose) increased from 25.3 to 52 per 100,000 from 2006 to 2014.

HEROIN TREATMENT

Hospital visits involving heroin increased from 2.6 to 17.4 per 100.000 from 2006 to 2014.

Source: 2017 Wisconsin Department of Health Services report

state may also wish to consider how best to utilize opioid blockers in other circumstances. Madison's Common Council recently reapproved a grant to provide police with naloxone auto-injectors so that they can quickly help individuals who have overdosed.

The task force has prioritized funding medical training on addiction for physicians and providing "addiction fellowships" for the state's rural hospital training program. In addition, the task force is recommending providing grants to 25 hospitals that treat high rates of drug overdoses. The grants would be used to hire recovery coaches to help patients transition between inpatient and outpatient care.

It also is recommending funding three new medically

She advocates for sober houses and recovery communities.

"I do all of this work to give back. So many people in recovery I know do the same thing," she says. "When you invest in one person's recovery, you get that back 100 times — putting families back together, less crime."

She tells clients about the snake.

"The first time you use (an opioid), it works amazingly well. Over time, it works less well. That diminishes until you're in a place way darker than where you started."

She tells them what happened to their brains. "We know the brain science behind addiction. The brain has been hijacked. Using feels like the thing you need to survive," she says.

And so users do bad things. "Not because they're bad people, but because they're desperate to survive. I very much believe that the public doesn't get that. But it's hard to let go of that anger toward people with addiction, because they did do those bad things when their brain was hijacked."

She tells them about healthy coping skills, things that take a great investment in time but pay off in big ways — yoga, deep breathing, meditation. "The first time you use them, they barely work at all," she says. "But they actually gain power the more you use them."

She tells them, too, that the snake will be there, in some form, always.

"It takes the brain two years to heal after addiction to opioids. So for the first two years, it's difficult," she says. "You get cravings. And after that, you still get cravings once in a while."

And for her? She works with a doctor to manage her pain with medications that are much less addictive.

Every once in a while, she gets the expected craving. But then she thinks, "'I'm a mom. I have two kids.' ... When you love your life and you have the time away from using, it becomes a second-long craving, and it is such an easy choice to decide that there is no way that you would give up everything you love to use again."

Jan Uebelherr is a freelance editor and writer in Milwaukee. She was a Milwaukee Journal Sentinel reporter for more than 30 years.

Opioid crisis taking a toll on rural Wisconsin

By Mike Nichols and Jan Uebelherr

Survey, there are addicts who get hooked the way people always have — by hanging out with the wrong crowd and starting with alcohol or maybe a little pot in high school, perhaps doing coke at a party as a teenager and eventually moving on to something even more ensnaring.

Then there are the addicts who, as Erik Sutton says, "cannot believe they are in that position."

These are the Wisconsinites, often over age 30, who became addicted to medications they were prescribed to treat a debilitating pain or ailment, and who then moved on to something cheaper and more plentiful. Like heroin.

"Just coming off of it — just the withdrawal — can be fatal," says Sutton, a battalion chief with the Superior Fire Department.

Superior and the surrounding area have been inundated with opioids in recent years. Law enforcement in Douglas County, which includes Superior, reportedly seized more than 460 grams of heroin in 2016 — 459 more than just five years earlier. The county had the most heroin submissions to the state crime lab per capita, the Sheriff's Department has said.

Instead of just heart attacks and accidents, the Superior Fire Department finds itself responding time and again to drug overdoses. Typically, says Sutton, the department might respond to "one or two or three a week, maybe." But "when a new batch comes into town, we will know instantly because we will go on two or three (overdose calls) a day."

"It ebbs and flows," he says. "It goes in cycles. What we have noticed is it goes in about an eight- or 10-week cycle, and what happens is a new batch of product comes into the area at a much higher potency."

He uses an analogy that most Wisconsinites can better relate to.

"If you're used to drinking a stein of beer and then fill it up with vodka, it will be a whole lot different afternoon."

Dealers come up from the Twin Cities or Chicago and rent

a room someplace for a week, parcel out the drugs, make a killing — sometimes literally — and then hit the road. Sutton and his team pick up the pieces. Or the bodies.

They carry Narcan — a nasal spray used to treat opioid overdose — and it saves lives, usually.

"You know, the truth is we have had 40-year-olds who have passed away from an overdose, and we have had 16-yearolds and everything in between. The one that most sticks out in my mind is a 28-year-old female whose young daughter

> was in the next room crying, and we did everything we could. But she was gone."

Easy access to prescriptions

There are similar tragedies in smaller cities, as well as bigger ones, all across Wisconsin and prescription drugs are often a part of the story.

Caroline Miller, who grew up in Platteville, says she briefly became addicted to opioids while in college after having her wisdom teeth removed.

"I didn't think about the consequences," she says. "I kept getting (Vicodin) from the dentist for a few months. I'm not sure why exactly they kept refilling my prescription." Miller, 35, is now an outreach specialist at Wisconsin Voices for Recovery at the University of Wisconsin-Madison and a volunteer with Connections Counseling in Madison.

Kim Hurd, 54, used recreational drugs in her 20s in a small town in northern Illinois but didn't get hooked on Vicodin until she was 32 and had just given birth to her first child. It was

a long labor, and she was given the drug while still in the hospital.

"I was just so high. It felt just fantastic," she says. "I got up and took a shower, put makeup on and went down to the gift store.

"I remember sitting in the maternity ward nursing my baby while high as a kite." Her daughter had minor complications and stayed in the hospital. So did Hurd — and they kept giving her Vicodin. She left with a prescription for it.



"I'm not sure why exactly they kept refilling my prescription." — Caroline Miller

"I remember sitting in the maternity ward nursing my baby while high as a kite." — Kim Hurd



"It's an absolute feeling of relief, of just feeling good. When that euphoric feeling comes over you and you feel awesome and all problems go away and you can do anything, you're able to cope with anything that comes at you."

The drug wasn't hard to get. Hurd is allergic to ibuprofen, so if she injured her back or had menstrual cramps, she got Vicodin. She got it with a prescription, but if she needed more, she had a steady and easily accessible supply — tenants of some properties that she and her then-husband owned in the Rockford area.

Things got much worse over the years before she found a way to get better, entered rehab in 2007 and moved to the Madison area, where she works at Connections Counseling, in addition to another job.

There is no geographic refuge. In fact, the smaller towns farther north can be even more enticing to dealers than Chicago, the Twin Cities or Detroit, according to Sutton. Superior, Duluth and the once-isolated hamlets of northern Minnesota — Cloquet, Hermantown, Proctor — are at the top of what he calls a triangle. Drug flows north from two directions. The dealers go where they find profits.

There are many recovery stories — and policy changes aimed at making them possible. But Sutton isn't particularly sanguine. Not yet anyway.

"I have not seen that the tide is turning," he says. "It's all supply and demand. With the opioid epidemic, which started for the most part with prescription medications, I don't see it going away."

Mike Nichols is WPRI president. Jan Uebelherr is a freelance editor and writer in Milwaukee.

assisted treatment centers in underserved parts of the state to offer both behavioral and medical treatment, which includes access to an opioid substitute. The use of opioid substitutes greatly reduces the probability of relapse.

The role of the FDA

It is also worthwhile to examine policies and laws regarding access and Food and Drug Administration regulation. In the case of Suboxone — a combination of buprenorphine and naloxone used to treat opioid addiction — ill-conceived patent laws and regulations have contributed to a narrow market and artificially inflated prices.

In 2010, drug maker Indivior voluntarily recalled Suboxone before its FDA-granted exclusivity period was up and replaced the tablet with a medically unchanged product — a strip that dissolves on the tongue — for which the FDA granted additional years of exclusivity.

This change has led to a range of problems. In Wisconsin and elsewhere, the strip became a popular contraband in prisons, as it is exceedingly easy to con-

Prescription Opioids

The most common drugs involved in prescription opioid overdose deaths include:

Methadone Oxycodone, such as OxyContin Hydrocodone, such as Vicodin

- Nearly half of all U.S. opioid overdose deaths involve a prescription.
- In 2015, more than 15,000 people died from overdoses involving prescription opioids in the United States.

Among those who died from prescription opioid overdose from 1999 to 2014:

AGE

Overdose rates were highest among people ages 25 to 54.

RACE

Overdose rates were higher among non-Hispanic whites and American Indian or Alaskan natives, compared to non-Hispanic blacks and Hispanics.

GENDER

Men were more likely to die from overdose, but the mortality gap between men and women is closing.

Source: Centers for Disease Control and Prevention

ceal. Trying to prevent smuggling has increased personnel costs. What's more, the inflated price costs the state millions of dollars in higher Medicaid expenses.

Reforming FDA regulations to prevent companies from making medically insignificant changes to a product

merely to extend patent protection and suppress competition would open the market to more varied and affordable options for addicts, while also saving governments money.

But the state does not need to wait for the FDA to act. The Wisconsin Medicaid Pharmacy Prior Authorization Advisory Committee, slated to meet in May, could choose to follow the lead of Maryland and other states that replaced Suboxone with a less-problematic drug. Since

Maryland switched to Zubsolv tablets last year, smuggling of such drugs into jails and prisons has fallen 41 percent.

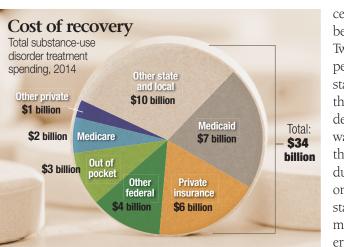
Wisconsin Attorney General Brad Schimel is tackling the problem by leading the 42-state antitrust lawsuit against the makers of Suboxone — Indivior and MonoSol Rx — for "illegal product hopping," while his Dose of Reality campaign launched in 2015 is increasing awareness about prescription painkiller abuse.

Apart from government action, medical innovation may help alleviate opioid addiction. In May 2016, Pfizer and Eli Lilly announced that by 2018, they will seek FDA approval for a new type of pain reliever that could be a substitute for opioids. The drug, tanezumab, could be used to treat osteoarthritis, chronic back pain and pain related to cancer without being addictive.

The medicine has demonstrated meaningful efficacy when compared with a placebo and commonly used pain medications, and has shown to be more effective at treating pain than oxycodone. Investing in the development of substitutes and encouraging the FDA to approve such drugs in a timely fashion could yield substantial benefits.

Baby steps to a long-term solution

It is hard to see the opioid epidemic easing in the near future. The major factors that have contributed to the rise



Source: Substance Abuse and Mental Health Services Administration

of opioid addiction seem unlikely to change anytime soon.

But what can change — and has — are the government's actions. At this nascent stage of combating the opioid problem, we have some hope that what has been done will bear fruit in the near future.

Wisconsin has had success combating unhealthy behaviors in the recent past. Twenty years ago, nearly 25 percent of all adults in the state smoked tobacco, and the number of premature deaths here due to smoking was (and remains) higher than the number of deaths due to opioid abuse. Today, one-third fewer people in the state smoke tobacco, a seismic shift due largely to higher taxes on cigarettes and a statewide ban on indoor smoking, which changed

the culture of smoking. These reforms benefit taxpayers as well as the health of thousands of Wisconsinites.

However, the scourge of opioid abuse on our rural communities is of a different sort altogether. These days, Caldwell observed, the oxycodone epidemic "has joined shuttered factories and Donald Trump as a symbol of white working-class desperation and fecklessness." Its prevalence has resulted in a decline in life expectancy for white, working-class Americans for the first time since the government began keeping records of such things.

An effective solution for the opioid epidemic must tackle both supply and demand by making it more difficult for people to acquire the drugs as well as reforming the coarsening culture that envelops poor rural communities and inner cities. For these residents, a dearth of jobs and a lack of access to a quality education make it difficult to succeed in today's economy and leave many disillusioned and in search of something else.

Addressing both the supply and demand in Wisconsin's opioid crisis seems like a daunting task, but we have no choice but to try.

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