We Are Already Paying. The Question Is What We're Buying.

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More than one person died every week in a single rural Tennessee county in 2023. That county is Roane, where 72 lives were lost in a community of just 53,000 people. The death rate, 135 per 100,000 residents, is over four times the national average.

Each of those 72 deaths was a person. A son or daughter, a parent, a coworker, a neighbor. Each left behind a family that will carry the loss for the rest of their lives. And each one weakens the community that lost them through rising crime, declining public health, and neighborhoods that depend on people who are no longer there. This is not just their problem. It is ours. The question is how to do better.

Behind every one of those losses is also a financial cost the public rarely sees. Each fatal overdose, on average, takes about $1.6 million with it. That includes roughly $1.4 million in lifetime earnings and $200,000 in tax revenue that will never be paid. Multiply that by Roane County's 72 deaths in 2023, and the total comes to about **$115 million** in projected lifetime economic loss, or roughly **$2,160 for every resident and $8,640 for a family of four**. To the average taxpayer, that is an increase you absorb. You pay it through higher insurance premiums, higher property taxes, and a tax base that shrinks every time someone dies before their working years are up. That is the cost of twelve months of overdose deaths in one rural county. If nothing changes, another bill of similar size will be written next year, and the year after that.

The cost reaches you through the systems you already fund, regardless of where in Tennessee you live or how old you are.

Take a single overdose response in a Tennessee emergency department in any county. The unreimbursed care is absorbed by the hospital and recovered by raising charges on every other patient. That raises your private insurance premium. When a 38-year-old Tennessee worker dies of an overdose, the state loses 23 years of sales tax revenue. His employer loses an experienced employee, with replacement costs often equaling months of training and lost productivity. TennCare absorbs medical costs his employer-sponsored plan would have covered. If his children enter the Department of Children's Services system, every Tennessee taxpayer funds their care through the state's $1.2 billion budget. Parental substance use is one of the leading drivers of foster care entry in this state. If his case moves through the criminal justice system,

every property taxpayer in his county funds the courts, the public defender, and the jail bed at roughly $38,000 per inmate per year.

Roane County is one example. The same arithmetic compounds in every Tennessee county, and it reaches every age group.

Most taxpayers will never see a line item explaining the increase in their taxes or insurance premiums. But the cost is there. The expectation is simple: public dollars should be spent in ways that produce measurable results.

Tennessee has not been standing still. Over the past decade, the state has expanded access to medication-assisted treatment, increased naloxone distribution, strengthened prescription monitoring, and invested in recovery courts and community-based programs. These efforts have saved lives, and the people behind them deserve credit.

But the numbers in front of us make one thing clear. The scale of the response does not match the scale of the problem.

What 12 Years Taught Me

I have worked in substance use disorder treatment for more than 12 years in private programs and publicly funded systems, in court-mandated, reentry, and diversion programs, and in outpatient and medication-assisted treatment programs across Middle Tennessee. I have sat with people in the earliest, most fragile moments of their recovery. I have seen what happens when someone stabilizes, when a family starts to heal, and when that progress holds. I've also seen too many people succumb to this disease. The destructive family cycle continues, and another person becomes a statistic.

As it stands, we will never build a system large enough to pull everyone out of the river. The number coming downstream keeps growing, and the cost rises with it. Our communities and our families are already paying that price.

The only path forward is upstream. Building durable systems that are not dependent on individual leaders or political turnover.

In both the public and private sectors, I have watched the same pattern repeat. Progress is built, then dismantled.

The issue is not that we do nothing. It is that we do it in fragments, without the continuity required for impact to compound.

Programs rise and fall based on leadership changes, policy shifts, or ownership decisions, factors that have little to do with whether they actually work. When progress depends on who is in charge rather than what is effective, it does not last. The result is a cycle of starts and stops, and a community that learns, each time, to trust us a little less.

That instability creates a second problem. As programs change with leadership and management, evaluation metrics shift, fall out of priority, or are replaced, leaving no consistent foundation to measure outcomes over time.

Unlike other chronic diseases, substance use disorder still lacks nationally standardized outcome measurement. Most programs evaluate themselves, set their own metrics, and report their own results. Without independent review and shared standards, programs are judged by what they choose to measure. That is not accountability. That is paperwork.

These are our communities. These are our tax dollars. Our money should be put to work in ways that cannot be undone by a single decision or a change in leadership.

If what we build cannot withstand changes in ownership, leadership, or elected officials, it is not a solution.

And if it cannot be measured against clear outcomes, we have no way to know whether it works or is worth sustaining.

That standard demands outcomes and accountability, not systems built to look effective on paper.

Alongside that is a model built to manage the problem rather than resolve it. These approaches prioritize compliance, stabilization, and short-term containment, but rarely measure whether the person, the family, or the community is actually improving over time.

They manage what is visible, without addressing the conditions that made it possible.

What We Know About Generational Impact

There is something we know about the people cycling through our emergency rooms, our jails, and our treatment programs that our policy and funding structures almost entirely ignore. The majority of them carry significant trauma histories. Not as backstory. As biology.

Chronic trauma, including childhood neglect, abuse, household dysfunction, community violence, and poverty, shapes the developing brain and nervous system in ways that are now well documented by decades of research. It impairs the capacity for emotional regulation, for impulse control, and for tolerating distress without relief.

Not everyone who experiences trauma develops a substance use disorder. Many do not. But at a population level, the relationship is clear, consistent, and measurable. The people most represented in our treatment programs, our emergency departments, and our criminal justice systems are disproportionately those who have experienced the highest levels of instability and trauma.

Substance use is not a moral failure or a character flaw. At one point, it functioned as a solution. It is a neurological adaptation that is available and an immediate way to regulate a nervous system that does not have the tools to regulate itself.

When we design treatment systems that demand sustained compliance, complex navigation, and consistent self-regulation from people who have spent their lives in survival mode, and then withdraw support the moment they struggle, we are asking people to do what they are not yet equipped to do.

This is not a treatment failure. It is a design failure. And we are funding it, repeatedly, and at an enormous cost.

The consequences extend far beyond the individual. The child who grows up watching a parent cycle through treatment, incarceration, and crisis is not just witnessing it. They are absorbing it. The family that fractures under the weight of untreated addiction passes that fracture forward. The community that loses its working-age adults loses the stability that makes recovery possible for anyone.

We are not just paying for the current generation’s crisis. We are funding the next one.

One Year Across Every County

We tend to talk about this crisis through the frame of opioids, and the data justifies that attention. In 2023, Tennessee recorded 3,616 drug overdose deaths, with opioids involved in 80 percent of them and fentanyl present in 75 percent.

But substance use disorder is not an opioid problem. It is a community health problem that expresses itself through whatever substance is most available, most affordable, and most effective at numbing pain that has no other outlet.

Deaths involving stimulants, primarily methamphetamine and cocaine, increased 143 percent in Tennessee between 2019 and 2023. In 2023, stimulants were involved in more than 2,200 overdose deaths. Methamphetamine is a workforce crisis as much as a health crisis. It dismantles

people slowly, through cognitive deterioration, psychiatric instability, and an employment trajectory that ends long before death.

The rise in stimulant use is not a separate crisis. It is a multiplier. While medication-assisted treatment has transformed outcomes for opioid use disorder, there is no equivalent single intervention for stimulant use.

Alcohol use disorder costs Tennessee taxpayers the equivalent of more than $6 billion annually, through healthcare systems, law enforcement, child welfare, lost productivity, and traffic fatalities. It affects more Tennesseans than any illicit substance and contributes directly to domestic violence, child abuse, liver disease, and psychiatric emergencies. Yet it receives a fraction of the policy attention and treatment funding directed at opioids.

We cannot forget this is a polysubstance problem that affects every socioeconomic level. This health problem does not discriminate.

In 2023, 79% of stimulant-involved deaths in Tennessee also involved an opioid. The people showing up in our treatment programs are not presenting with a single substance. They are presenting with the full weight of lives that have not had enough support in them for a very long time.

Now look at what one year of this costs Tennessee.

The 3,616 overdose deaths Tennessee recorded in 2023 represent, in lifetime earnings and tax revenue alone, approximately **$5.8 billion in economic loss generated in a single twelve-month window**. That is not the cumulative bill. That is what 2023 alone added to it.

And those numbers undercount what Tennessee actually absorbs. The 3,616 figure counts only Tennessee residents. By the Tennessee Department of Health's own methodology, every chart and county-level breakdown in their annual report is limited to "TN residents." That methodology omits a very large category: the people who overdose in Tennessee but live somewhere else. Tennessee borders eight states, more than any state in the country except Missouri. We host 147 million visitors a year, 16.9 million of them in Nashville alone. When a tourist overdoses on Lower Broadway, Davidson County pays for the ambulance, the emergency department, the hospital bed, and, if the death is fatal, the autopsy and the unclaimed-remains process. None of that appears in any state mortality count. Multiply this across the Smokies, Memphis, and the border counties of every neighboring state whose residents come to Tennessee

for healthcare, work, or recreation, and the real cost burden is meaningfully larger than the resident-only data shows.

In every county in this state, the math runs the same way, with different denominators. Davidson County's $853 million annual loss. Knox County's roughly $690 million. Hamilton County's $278 million. Roane County's $115 million in a community of fewer than 54,000 people. These are 2023 figures. Each one will be replaced by a similar figure in 2024, and 2025, and every year this remains a persistent, ongoing condition rather than a contained crisis.

And those figures count only the deaths. They do not count the alcohol-related emergency visits coded as trauma or psychiatric crises. They do not count the methamphetamine-driven foster care placements. They do not count untreated alcohol use disorder in the 55-year-old who cannot work and has cycled through three hospitalizations for pancreatitis. They do not count the employer in a rural county who cannot fill positions because the labor pool has been hollowed out by a decade of untreated addiction across every substance category.

Add to this what years of inaction have already accumulated. Applying published economic methodology to 2023 Tennessee data, the projected cumulative economic burden of substance use disorder, across the lifetime of cases currently affecting the state, exceeds $40,000 per resident in the highest-burden counties. In Roane County, that figure is $40,465 per resident. In Hancock, $34,991. In Cocke, $31,463. These are not bills anyone will receive in the mail. They are real, measurable economic damage already absorbed by communities that have been carrying concentrated burden for years with proportionally far less policy attention than their numbers demand.

According to Avalere Health's 2025 national analysis, Tennessee's projected cost per opioid use disorder case is more than $808,000, over $100,000 above the national average. That figure covers lost productivity, health insurance costs, criminal justice costs, and treatment expenses. It does not include alcohol. It does not include meth. It does not include the downstream costs to children and families.

Federal research shows that for every dollar invested in addiction treatment, approximately four dollars in healthcare costs and seven dollars in criminal justice costs are avoided. Those are costs that never occur when treatment happens early and effectively.

Instead, much of our spending happens after the damage is already done, through emergency rooms, jail beds, courts, and other crisis systems. In other words, we are paying those costs on

the back end because we did not prevent them on the front end. If every dollar invested returns that level of savings, then we are not underfunding the problem. We are funding the wrong part of it.

The data is clear. The cost is measurable. If we are moving toward a value-based healthcare system, the question is what we are investing in and what outcomes we are seeing as a result. The numbers give us the ability to answer that.

A Different Question

Here is the question we are not asking. What does it take for a community to be well?

Not what does it take to manage visible crisis. Not what satisfies a compliance requirement or looks good in a program report. What does it actually take to support health, including recovery from addiction, at the level of a person, a family, a neighborhood, or a community?

It requires stable housing, not as a reward for sustained sobriety but as a foundation without which sobriety is nearly impossible to sustain. A dysregulated nervous system cannot regulate itself in an unstable environment. This is not a philosophical position. It is neuroscience.

It requires that basic needs are met (food, safety, connection) because the brain cannot focus on recovery when it is focused on survival. Asking a traumatized person to do the work of recovery without first meeting their basic needs is not a treatment model. It is a setup for the pattern to continue.

It requires that families are supported rather than separated wherever possible, because the research on what actually sustains long-term recovery points consistently toward relationship, belonging, and a reason to stay. Severing those connections, even in the name of treatment or protection, often deepens the trauma at the root of the problem.

And it requires that communities are built to offer that support, not as charity, not as a political talking point, but as infrastructure. The same way we build roads because we understand that communities cannot function without them. Community health is infrastructure. We simply have not been willing to fund it that way.

We are paying for all of this already. Every emergency room visit, every incarceration, every child removed from a home, every worker who never returns to the labor market. We are funding all of it. The question is whether we invest in preventing those outcomes, or continue paying for them at crisis prices, indefinitely.

This is not a radical argument. It is a fiscal one.

The Choice in Front of Us

To the legislators reading this:

Every county in Tennessee experienced a drug overdose death in 2023. Every county is absorbing the costs, alcohol, methamphetamine, child welfare, criminal justice, costs that do not appear as a single line item, but are carried across multiple systems without corresponding improvement in outcomes.

These are not isolated expenses. They are part of a pattern. A system that responds after the fact, manages visible symptoms, and resets without building sustained improvement will continue to produce the same results.

As things stand, those costs will continue to rise. The communities you represent will continue to absorb them. And the long-term impact will not stop with this generation.

There is another path.

It starts with aligning investment to outcomes. Funding housing as health infrastructure. Building family support into the treatment continuum as a standard, not an afterthought. Structuring programs around measurable progress over time, not short-term compliance. Protecting effective models from disruption so that progress can be sustained and built upon.

This is not about expanding effort. It is about directing it in ways that produce results.

To the taxpayer reading this:

Your share of the 2023 overdose-related economic loss is measurable, approximately $3,300 for a family of four statewide, and as high as $8,640 in the hardest-hit counties. That cost is not theoretical. It is reflected in higher premiums, strained public systems, workforce shortages, and reduced community stability.

These costs are already being paid.

The question is whether they continue to be paid on the back end or reduced through investment on the front end.

And to those working within the system:

The work being done every day on the front lines, across treatment programs, emergency departments, courts, and communities is demanding, complex, and often carried out under constraint. It matters, and it has impact.

But the issue is not individual effort. It is system design. A model built on fragmentation, short-term metrics, and instability will continue to produce the outcomes it is currently producing.

We already know the people moving through these systems are not failures. They are the result of conditions that were not addressed early enough or consistently enough.

The responsibility and the opportunity here is to build systems that match the level of effort already being given, with the stability and structure required to make that effort compound over time.

What Doing It Differently Looks Like

We do not need to invent something new. The models that work are already out there.

In Vermont, ninety-six percent of patients in the state's Hub and Spoke system have stopped using opioids. The model has been integrated into more than seventy-five community medical practices and has been sustained for over a decade.

In France, every licensed physician has been authorized to prescribe buprenorphine since 1995. Opiate overdose deaths have fallen seventy-nine percent in the thirty years since.

In Iceland, a community-owned, data-driven youth prevention model has been operating since the late 1990s and has been adopted in thirty-five countries.

We need housing as health infrastructure, the foundation Finland used to nearly eliminate long-term homelessness. We need family support as a standard component of every treatment continuum. We need community integration, including employment, connection, and belonging, as outcomes we measure and fund, not as afterthoughts we hope will sort themselves out.

What these models share is what Tennessee currently does not have: stability, primary-care embedding, public data, and protection from disruption. They are built to sustain what works over time, instead of being vulnerable to shifts in leadership, management, ownership, or policy direction.

We need to stop asking whether we can afford to do this differently. The county-level data makes clear that we cannot afford to keep doing it the same way.

The InBetween. The space between where Tennessee is and where it could be is not a waiting room. It is a point of decision.

The data tells us what the current model costs. The research tells us what a different model could return.

Communities across this state, in Roane County, Hancock County, Davidson County, and every county in between are already living the outcome of that choice.

We are already paying. The only question is what we are buying.

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Annual cost figures are derived from 2023 Tennessee Department of Health overdose mortality data. Per-death economic loss estimates ($1.4M lifetime earnings, $200K tax revenue) reflect average decedent age of 42 and 23 years of remaining productivity at Tennessee average wage, applying a 0.85 present-value factor. Cumulative county-level estimates apply the Brewer-Freeman (2018) Indiana Business Review allocation methodology to Avalere Health's 2025 national OUD cost study, anchored to 2023 TDH death data, US Census population estimates, and Bureau of Labor Statistics county unemployment figures. Full methodology available at melissakilpatrick.com.

Sources and Citations

Companion to: ***We Are Already Paying. The Question Is What We're Buying.***

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This document maps every factual and statistical claim in the Op Ed to a primary source. It is intended for editorial fact-checking, fact-checker queries, and the author's own reference. Sources are organized by section of the Op Ed.

Opening: Roane County, deaths, per-death loss

Claim: *Roane County population is roughly 53,000 (53,309).*

- US Census Bureau, ACS 5-Year Estimates, Roane County, TN

Claim: *Roane County recorded 72 drug overdose deaths in 2023.*

- 2023 Tennessee Drug Overdose Deaths Report (Tennessee Department of Health, March 2025), county-level data

Claim: *Roane County overdose death rate was 135 per 100,000, more than four times the national average.*

- 2023 Tennessee Drug Overdose Deaths Report, county death rates
- CDC NCHS, National drug overdose death rate (~32 per 100,000, 2023 provisional)

Claim: *Each fatal overdose represents approximately $1.4M in lifetime earnings and $200K in tax revenue.*

- Brewer & Freeman (2018), Cumulative economic damages from 15 years of opioid misuse throughout Indiana, Indiana Business Review (methodology)

  Note: *Lifetime earnings derived from average decedent age 42, 23 years of remaining productivity at TN average wage (~$56,000/year), 0.85 present-value factor. Lost tax revenue assumes ~14% effective combined tax rate on lifetime earnings.*

Claim: *Roane County's 2023 loss totals approximately $115 million ($2,160 per resident, $8,640 per family of four).*

Note: *Calculation: 72 deaths × $1.6M per death = $115.2M. Per-resident: $115.2M / 53,309 = $2,160. Per family of four: $2,160 × 4 = $8,640. All figures are author-derived from sources cited above.*

How costs reach the individual taxpayer

Claim: *Hospital uncompensated care raises insurance premiums via cost-shifting.*

- American Hospital Association, Underpayment by Medicare and Medicaid Fact Sheet

- Health Affairs, The Cost-Shift Payment Hydraulic (foundational economic literature)

Claim: *Tennessee Department of Children's Services has an annual budget of approximately $1.2 billion (state + federal).*

- Tennessee DCS Annual Report, SFY July 2023, June 2024
- Tennessee Lookout, DCS seeks $189M in new funding (Nov 2024)

Claim: *Parental substance use is a leading driver of foster care entry in Tennessee.*

- Child Trends, Parental Drug Use Remains a Top Reason for Foster Care Entries
- AFCARS / HHS, Trends in Foster Care Entry Among Children Removed Because of Parental Drug Use, 2000-2017

  Note: *National AFCARS data shows ~36% of removals in 2017 cited parental drug use; this share has grown since 2000. State-level rates vary widely; Tennessee is among the higher-affected states. The Op Ed uses the qualitative phrasing 'a leading driver' rather than a precise TN-specific percentage.*

Claim: *Tennessee Department of Correction average cost per inmate is approximately $38,000 per year.*

- Sycamore Institute, Budgeting for Incarceration in Tennessee
- Tennessee Department of Correction Annual Report, FY 2024

  Note: *FY2024 average daily TDOC cost ≈ $106 per inmate, annualized to ~$38,690. Range across facilities: $69, $252 per day.*

Community-level impact: crime, public health, workforce (Opening human paragraph)

Claim: *Substance use disorder weakens communities through rising crime, declining public health, and workforce loss.*

- AHRQ, 2022 National Healthcare Quality and Disparities Report: Substance Use Disorders chapter
- Shatterproof, Addiction in America: Cost and Impact
- Substance Abuse and Public Health: A Multilevel Perspective (PMC)

  Note: *Substance use disorders cost the U.S. more than $400 billion annually in lost workplace productivity, healthcare, and criminal justice costs combined. On any given day, more than 360,000 people are incarcerated for drug offenses in the U.S., and an estimated 60 percent of incarcerated individuals meet the criteria for SUD. The literature explicitly identifies 'community decay,' family disruption, and increased violence as compounding social consequences.*

Trauma and substance use disorder

Claim: *Adverse childhood experiences and chronic trauma shape brain and nervous system development in ways that increase substance use risk.*

- CDC, Adverse Childhood Experiences (ACEs) and substance use

- SAMHSA, Trauma and Substance Use Disorder Treatment Guidance
- Felitti et al. (1998), Adverse Childhood Experiences Study, foundational research linking ACEs to adult addiction risk

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One Year. Every Year. (Cost section)

Claim: *Tennessee recorded 3,616 drug overdose deaths in 2023; opioids involved in 80%; fentanyl present in 75%.*

- 2023 Tennessee Drug Overdose Deaths Report, Tennessee Department of Health (March 2025)

Note: *All TDH overdose statistics are limited to TN residents (residents-of-Tennessee methodology); see undercount section below.*

Claim: *Stimulant-involved deaths in Tennessee increased 143% between 2019 and 2023; stimulants involved in more than 2,200 overdose deaths in 2023.*

- 2023 Tennessee Drug Overdose Deaths Report, Tennessee Department of Health

Claim: *Excessive alcohol use costs Tennessee taxpayers more than $6 billion annually.*

- CDC, Excessive Alcohol Use State Fact Sheets (Tennessee)

Note: *CDC's 2010 Tennessee figure was $4.7 billion. Inflation-adjusted to 2024 dollars yields approximately $6.3-$7.0 billion. The Op Ed uses 'more than $6 billion' as a conservative stated figure.*

Claim: *In 2023, 79% of stimulant-involved deaths in Tennessee also involved an opioid.*

- 2023 Tennessee Drug Overdose Deaths Report

Claim: *There is no FDA-approved medication for stimulant use disorder. While medication-assisted treatment has transformed outcomes for opioid use disorder, there is no equivalent single intervention for stimulant use.*

- FDA, Takes Steps to Advance the Development of Novel Therapies for Stimulant Use Disorders
- ASAM, Clinical Practice Guideline on the Management of Stimulant Use Disorder
- SAMHSA Advisory, Contingency Management for Stimulant Use Disorder (PEP24-06-001)

Note: *FDA confirms no medication is currently approved for stimulant use disorder. The ASAM clinical guideline relies on contingency management and behavioral interventions as primary treatments. SAMHSA's 2024 advisory likewise positions contingency management as a primary, potentially life-saving intervention for the more than 4 million people in the U.S. with a stimulant use disorder.*

Claim: *Tennessee's 3,616 deaths × $1.6M per death ≈ $5.8 billion in 2023 single-year economic loss.*

Note: *Author calculation. 3,616 × $1.6M = $5.79B. Per-death lifetime loss derived from Brewer-Freeman (2018) methodology applied to Tennessee wage and demographic data.*

Claim: *County-level 2023 single-year economic loss: Davidson ~$853M; Knox ~$688M; Hamilton ~$278M; Roane ~$115M.*

Note: *Author calculations. County deaths from TDH 2023 report × $1.6M per death. Davidson 533 deaths = $853M; Knox 430 = $688M; Hamilton 174 = $278M; Roane 72 = $115M.*

- 2023 Tennessee Drug Overdose Deaths Report (county-level death counts)

Claim: *Statewide per-family-of-four 2023 share runs roughly $3,300; in hardest-hit counties (e.g., Roane) reaches $8,640.*

> ***Note:*** *Author calculations. Statewide: $5.8B / ~7.1M Tennesseans ≈ $817 per person; family of four ≈ $3,268. Roane: $115M / 53,309 residents ≈ $2,160 per person; family of four ≈ $8,640. Tennessee population from US Census ACS 2023.*

- US Census Bureau, ACS, Tennessee population estimates

Non-resident undercount

Claim: *TDH overdose data covers TN residents only; non-residents who overdose in Tennessee are not counted.*

- 2023 Tennessee Drug Overdose Deaths Report, every section header reads 'TN Residents'
- Tennessee Department of Health Drug Overdose Reporting page

Claim: *Tennessee borders eight states, the most of any state, tied with Missouri.*

- WorldAtlas, Which States Border Tennessee
- Wikipedia, Tennessee (geography)

Claim: *Tennessee hosted approximately 147 million visits in 2024, generating $31.7 billion in direct visitor spending.*

- Tennessee Department of Tourist Development, Tourism Breaks Record Spending for Fourth Consecutive Year (June 2025)

Claim: *Davidson County (Nashville) hosted approximately 16.9 million visitors in 2024, generating $11.2 billion in visitor spending.*

- Visit Nashville TN, Tourism in Davidson County Generated Record $11.2 Billion (2025 release)

County-level cumulative data

Claim: *Roane County projected cumulative SUD economic burden: $40,465 per resident. Hancock: $34,991. Cocke: $31,463.*

- Author's TN_Opioid_County_Cost_Analysis, applies Brewer-Freeman (2018) allocation methodology to 2023 TDH death data and Avalere (2025) cost anchor
- Brewer & Freeman (2018), County-level aggregate costs arising from Indiana's opioid crisis, methodology source

Claim: *Avalere Health (2025) projects Tennessee's cost per opioid use disorder case at more than $808,000, over $100,000 above the national average ($694,664).*

- Avalere Health, The Cost of Addiction: Opioid Use Disorder in the U.S. (May 2025, funded by Indivior; full editorial control retained by Avalere)

Claim: *Every $1 invested in addiction treatment saves approximately $4 in healthcare costs and $7 in criminal justice costs.*

- National Institute on Drug Abuse (NIDA), Principles of Drug Addiction Treatment: A Research-Based Guide
- NIDA, Is drug addiction treatment worth its cost?

Framing and rhetorical references

Claim: *The "upstream/downstream" metaphor (people drowning in a river; rescuers eventually walk upstream to find what is pushing them in).*

- McKinlay, J.B. (1979). A Case for Refocusing Upstream: The Political Economy of Illness, foundational public health framing for upstream prevention

  Note: *The river/upstream metaphor is a long-standing idiom in public health and prevention science, widely used since at least McKinlay's 1979 paper. No direct quotation in the Op Ed; the framing is invoked as common public-health rhetoric.*

Claim: *Value-based healthcare is an established federal policy framework actively being implemented across CMS programs.*

- CMS, Value-Based Programs (Centers for Medicare & Medicaid Services)
- CMS Innovation Center, Strategy to Drive Health System Transformation
- HHS, Strategic Plan, value-based payment goals

  Note: *The Op Ed references value-based healthcare as a stated federal direction. CMS has set explicit goals for value-based payment adoption and has multiple active value-based programs across Medicare and Medicaid. The argument in the Op Ed is that the cost data presented is precisely the kind of accountability data a value-based system would require.*

Tennessee's existing response (Acknowledgment section)

Claim: *Tennessee has expanded access to medication-assisted treatment, including specific funding for MAT in recovery courts and county jails.*

- The Sycamore Institute, The Opioid Epidemic in Tennessee: 2018 Update on New Policy Actions
- Tennessee Administrative Office of the Courts, Recovery Oriented Compliance Strategy (ROCS)

  Note: *Tennessee appropriated $1M in FY 2017-2018 for MAT in recovery courts and county jails, with additional MAT funding in the FY 2018-2019 budget.*

Claim: *Tennessee has expanded naloxone distribution through TDMHSAS.*

- Tennessee Institute for Public Service, Naloxone Distribution and Promotion Programming

  Note: *From October 2017 to December 2019 alone, Tennessee distributed more than 134,000 units of naloxone, with at least 13,400 lives saved attributed to that distribution.*

Claim: *Tennessee has a Prescription Drug Monitoring Program established by the Controlled Substance Monitoring Act of 2002 and strengthened by the Prescription Safety Acts of 2012 and 2016.*

- Office of Justice Programs, Prescription Drug Monitoring Program: Tennessee State Profile
- Tennessee Department of Health, Controlled Substance Monitoring Database (CSMD)

Claim: *Tennessee operates a network of recovery courts and community-based programs.*

- Tennessee Department of Mental Health and Substance Abuse Services, Resources for Courts

  Note: *Tennessee currently operates 46 adult recovery courts.*

Program evaluation and outcome measurement (What 12 Years Taught Me section)

Claim: *More than three million Americans receive substance use disorder treatment each year.*

- SAMHSA, Treatment Episode Data Set (TEDS) 2022 Annual Report
- SAMHSA, National Survey of Substance Abuse Treatment Services (N-SSATS)

Claim: *Unlike other chronic diseases, substance use disorder has no nationally standardized outcome measurement system; no nationally endorsed standardized recovery measure exists.*

- Pew Charitable Trusts (March 2026), To Support People Affected by Substance Use Disorders, Jurisdictions Should Measure Recovery
- Substance Use Disorder Treatment Outcomes: Methodological Overview of Metrics and Criteria (PMC, 2024)
- Examining Benefits and Limitations to Treatment Outcome Measurement Tools for Substance Use Disorder: A Scoping Review (MDPI, 2024)
- NAATP / Foundation for Recovery Science and Education (FoRSE) Outcomes Measurement Program

  Note: *Pew's March 2026 issue brief explicitly states: 'no nationally endorsed standardized recovery measures exist.' The methodological overview in the 2024 Treatment Outcomes review confirms 'unlike other chronic diseases, there is currently no standardized measurement system for addiction treatment outcomes.' NAATP/FoRSE is one of the field's leading attempts to fill this gap, and its existence as a recognized initiative is itself evidence that the gap is widely understood. SAMHSA's TEDS data system relies on state-collected program-reported data and uses National Outcome Measures (NOMs), but TEDS is a count of episodes rather than a recovery outcomes framework.*

Claim: *The lack of standardized SUD outcome measurement has been documented in the literature for nearly two decades.*

- Examining Benefits and Limitations to Treatment Outcome Measurement Tools for SUD: A Scoping Review

  Note: *This review explicitly notes: 'The lack of consensus in the standardisation of outcome measures has been highlighted for about two decades, and the establishment of guidelines for evaluation of treatment outcomes is imperative.'*

Sustained model references (What Differently Looks Like section)

Claim: *Vermont's Hub and Spoke system produced a 96 percent decrease in opioid use among in-treatment participants, integrated into 75+ community medical practices, sustained for over a decade.*

- Vermont Hub-and-Spoke Model of Care for Opioid Use Disorder: Development, Implementation, and Impact (Brooklyn & Sigmon, J Addict Med 2017)
- Vermont Hub-and-Spoke Model of Care for Opioid Use Disorders: An Evaluation (Vermont Department of Health, 2017)
- Vermont Blueprint for Health, Hub & Spoke Program (current operational profile)

Note: *96% decrease figure is from patient-reported measures in the official Vermont Department of Health evaluation. Same evaluation reported 92% drop in injection drug use, 89% decrease in ED visits, and 90% reduction in arrests/police stops. The system now operates 9 regional hubs and 75+ spoke locations.*

Claim: *France authorized all licensed physicians to prescribe buprenorphine in 1995. Opiate overdose deaths fell 79 percent over the next 30 years.*

- Why buprenorphine is so successful in treating opiate addiction in France (NARCAD)
- How France Cut Heroin Overdoses by 79 Percent in 4 Years (Vanderbilt Neonatal Abstinence Syndrome and Opioid Policy)
- Buprenorphine deregulation as an opioid crisis policy response: comparative analysis between France and the United States (Int J Drug Policy)

Note: *In France, ~20 percent of all licensed physicians prescribe buprenorphine, treating roughly half of the country's estimated 180,000 problem heroin users. The 79 percent reduction in opiate overdose deaths is the cumulative figure across the period since 1995 deregulation.*

Claim: *Iceland's Planet Youth (Icelandic Prevention Model) has operated since the late 1990s and has been adopted in 35+ countries.*

- The Icelandic Prevention Model, PlanetYouth.org
- Development and Guiding Principles of the Icelandic Model for Preventing Adolescent Substance Use (Health Promotion Practice, PMC)
- European Union Drugs Agency, Planet Youth/Icelandic Model best practice review

Note: *The model is community-driven and data-led, using annual surveys of all teens to identify local risk and protective factors. It has been associated with sustained reductions in adolescent alcohol, tobacco, and other drug use over more than two decades and has been adopted in dozens of countries including Lithuania, Spain (Tarragona), and rural Canada.*

Claim: *Finland used Housing First as the foundation of its national policy and has nearly eliminated long-term homelessness.*

- Housing First: A Review of the Evidence (HUD USER, 2023)
- Pathways Housing First Institute, international adoption page

Note: *Finland is the most-cited national-scale Housing First implementation success. The model originates from Pathways to Housing (Sam Tsemberis, NYC, 1992) and has since been adopted by HUD as a federally endorsed approach in the United States.*

Methodology references

- Brewer, R.M. & Freeman, K.M. (2018). County-level aggregate costs arising from Indiana's opioid crisis. Indiana Business Review, 93(2)
- Brewer, R.M. & Freeman, K.M. (2018). Cumulative economic damages from 15 years of opioid misuse throughout Indiana. Indiana Business Review, 93(1)
- US Census Bureau, American Community Survey 5-Year Estimates (county population, demographic data)
- Bureau of Labor Statistics, Local Area Unemployment Statistics (county unemployment data)
- SAMHSA, National Survey on Drug Use and Health (NSDUH) state-level OUD prevalence

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