FACING ADDICTION WITH HOPE AND UNDERSTANDING

When the Floodwaters Rise: What Disaster Research Reveals About Recovery, Telehealth, and the Family Home

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INTRODUCTION: A CRISIS INSIDE THE CRISIS

Imagine watching a river crest behind your neighborhood while simultaneously watching your loved one's recovery clinic go dark. For families of people with opioid use disorder, a natural disaster is never just a natural disaster. It is two emergencies at once — the flood itself, and the sudden severing of the clinical thread that has been holding sobriety together: the daily check-in, the prescription, the counselor's voice on a Tuesday afternoon.

This is not a hypothetical fear. It is a documented, measurable phenomenon, and researchers are only now beginning to understand how profoundly climate-related disruptions threaten the architecture of addiction recovery. What they are finding should matter deeply to every family navigating this terrain — not because the news is bleak, but because the research also points, with striking precision, toward exactly what resilience looks like, and exactly where the remaining gaps fall.

THE EVIDENCE FROM THE GROUND

In April 2024, two severe flooding events struck southwestern Pennsylvania. They were not catastrophic by the standards of national disaster coverage — no Katrina-level destruction, no sustained national news cycle. But for the treatment providers and patients in Allegheny and Washington counties, they were profoundly disruptive. Researchers conducted 18 semi-structured interviews with treatment program directors, clinicians, counselors, and emergency service providers to

understand what actually happened to opioid use disorder care during those weeks (Kampman 2026).

The headline finding was, on its surface, hopeful: the disruption was substantially mitigated. Transportation systems failed, in-person appointments became impossible, and yet the system did not collapse. The reason? Telehealth infrastructure built rapidly during the COVID-19 pandemic had quietly become a disaster-preparedness asset. Virtual care kept the clinical relationship alive when the roads did not.

This finding tracks with what researchers discovered in Seattle in January 2024, when an extreme cold event caused catastrophic flooding at Evergreen Treatment Services — a facility serving 1,100 methadone patients. The facility sustained 80% damage and was rendered unusable. Missed doses rose from 16.3% to 22.5% within three weeks. The active patient census dropped from 1,413 to 1,290 in eight weeks, as some patients simply fell out of care during the chaos (Dunn 2024). Neighboring clinics absorbed the overflow; wait times exceeded two hours. The numbers are sobering because each percentage point of missed doses represents a real person — someone's parent, sibling, child — in a moment of maximum vulnerability.

And Hurricane Helene showed the full catastrophic potential: road closures, collapsed bridges, and fuel shortages made travel physically impossible for many patients across Appalachia, while communication failures compounded the isolation (Cerceo 2026). Multiple opioid treatment programs closed for extended periods. The infrastructure that many families take for granted — the clinic down the highway, the pharmacy on the corner — simply vanished.

THE TELEHEALTH PROMISE — AND ITS HONEST LIMITS

The Pennsylvania researchers reached a conclusion that deserves to be read carefully, because it contains both hope and a warning embedded in the same sentence. Telehealth, they found, "supported stable patients,

caregivers, and those with transportation barriers" — but it "presented challenges for individuals in early recovery, those lacking private or safe home environments, and those with limited digital literacy" (Kampman 2026).

Read that list again: early recovery, unsafe or non-private home environments, limited digital access. These are not random categories. They describe, with clinical precision, the people at the highest risk of relapse. And they describe, perhaps uncomfortably, the domestic circumstances that many families of people with addiction actually inhabit.

This is the hidden finding inside the headline. Telehealth works — a 2025 comparative study found no statistically significant difference in retention rates between telehealth and office-based buprenorphine treatment, with telehealth requiring $3,750 less per one percentage point of retention than in-person care, making it demonstrably cost-effective at scale (Saad et al. 2025). For stable patients, for those who have their own quiet room and a smartphone and a relationship they can trust, remote care delivers real clinical value.

But the home is not a neutral space. For someone in early recovery, the home may be the site of ongoing conflict, the place where triggering relationships live, or a household where no room is truly private enough for a frank conversation with a counselor. When a disaster forces care into that home environment, it is not simply changing the location of treatment — it is inserting clinical vulnerability into the same space where relapse risk already runs highest. The telehealth platform cannot fix that. In fact, as Kampman and colleagues found, it can make the problem worse by eliminating the geographic separation between the clinic and the chaos.

THE CLIMATE CONTEXT: THIS IS BECOMING MORE COMMON

What makes this research especially urgent is the trajectory. A 2024 scoping review of peer-reviewed literature on climate change and substance use found that most studies documented increased consumption of alcohol and other drugs following climate-related events, alongside patterns of unplanned withdrawal, disrupted drug markets, and broken service access (MacLean et al. 2024). This is not a stable baseline. As the frequency of extreme weather intensifies, the intersection of environmental disaster and addiction vulnerability will become a more routine feature of family life in affected regions — not an exceptional catastrophe, but a recurring stress test on recovery systems.

A 2026 position statement from AMERSA (the Association for Multidisciplinary Education and Research in Substance use and Addiction) formalized what the field has been observing: climate-related events exacerbate the harms associated with substance use and consistently disrupt access to treatment and harm reduction services, increasing morbidity and mortality among people with substance use disorders (Butner et al. 2026). What is often called a "natural disaster" is, for this population, a compounding disaster — one that strips away the very coping infrastructure people have worked hardest to build.

WHAT THE RESEARCH POINTS TOWARD FOR FAMILIES

The Pennsylvania study's finding that telehealth specifically supported *caregivers* is worth pausing on. In the chaos of a flooding event, families often become the de facto continuity-of-care system. A parent who drives their child to a weekly counseling session may be the only person who can, during a disaster week, help that child stay connected to care — by sitting with them through a telehealth call, troubleshooting the technology, creating the quiet space that the home might otherwise not provide.

Cerceo and colleagues, writing about Hurricane Helene's aftermath, specifically recommend that peer navigators, community health workers,

and mutual-aid groups perform patient check-ins and harm reduction distribution during disasters (Cerceo 2026). Families are, functionally, already doing this work in the best cases. The research suggests we should think of them not as bystanders to the clinical system but as embedded members of the care team — people whose role becomes most critical at exactly the moment when the formal system is most strained.

There are also structural lessons here that families can carry into disaster preparedness conversations with their loved ones' treatment providers. Do providers have telehealth capacity that has been tested in advance? Does the person in recovery have a safe, private space at home that could support a virtual appointment? Is there a backup plan if the clinic is inaccessible for a week? These are not abstract policy questions. They are the practical checklist of a family that has decided to treat their loved one's recovery with the same concrete seriousness they would give any other chronic medical condition requiring continuity of care.

SYNTHESIS: FLEXIBILITY AS A VALUE, NOT JUST A POLICY

What runs through all of this research is a single underlying principle: the more rigid the addiction treatment system, the more catastrophic the disruption when the system breaks. The Pennsylvania providers who navigated the 2024 floods most successfully were those who had already built flexibility into their service model — who treated telehealth not as an emergency workaround but as a legitimate clinical channel, who understood patient-centered care as a practice, not just a phrase (Kampman 2026).

For families, this same principle applies. Recovery is not a fixed destination with a single road leading to it. It is an ongoing relationship between a person and a set of supports — clinical, social, familial. When one road closes, the relationship itself must be flexible enough to find another path. That flexibility is not weakness. It is, as the evidence

increasingly shows, the very thing that keeps people alive when the floodwaters rise.

The scoping review by MacLean and colleagues found that the research base on climate change and substance use is still thin, particularly in low- and middle-income countries and around gradual climatic shifts rather than acute disasters (MacLean et al. 2024). But the Pennsylvania and Seattle and Appalachian data we do have already points clearly enough: the question is no longer whether climate disruption will affect addiction recovery. It already does. The question is whether families, providers, and policymakers will build the flexibility — in their systems, in their homes, in their plans — to meet it.

CONCLUSION: PREPAREDNESS AS AN ACT OF LOVE

For families of people with opioid use disorder, this body of research carries a specific and practical kind of hope. Not the hopeful-feeling reassurance that everything will be fine, but the actionable hope of knowing what the risks actually are, where the gaps in the safety net actually fall, and what role families actually play in the resilience of recovery.

The evidence shows that telehealth is a genuine advance — effective, equitable for many, and cost-efficient. It also shows, with equal honesty, that it reaches its limits in exactly the places where family relationships are strained, homes are chaotic, and early recovery is most fragile. That is not an indictment of any family. It is an invitation: to make the home more recovery-friendly, to be the continuity of care when the system cannot be, to ask the hard preparedness questions before the next storm season.

Facing addiction with hope and understanding means treating recovery not as something a person does alone in a clinic, but as something a family sustains together — through floods, through power outages, through every smaller and larger disaster that disrupts the smooth,

predictable life that recovery depends on. The research is increasingly clear that those families are not peripheral to treatment. When the infrastructure fails, they are the treatment.

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