

Maven Wave and UT Austin take on the opioid epidemic in Texas

Tackling the overdose epidemic in Texas will require work on numerous fronts. A digital platform in development by Maven Wave and the University of Texas at Austin will improve data reporting and distribution to enable that teamwork by reaching those who need it most.

University of Texas at Austin

The Department of Psychiatry at UT Austin's Dell Medical School works with a range of community partners to transform mental health care and mental illness prevention in central Texas and beyond.

Maven Wave

Maven Wave, an Atos company, is a technology consulting firm working with leading companies to create agile, analytics-based solutions in the cloud.

Every day, [an average of 130 Americans die from an opioid overdose](#). Few people realize that behind this epidemic, one of the biggest hurdles is a data problem that hinders the work of those trying to bring life-saving resources to areas and individuals most affected by substance abuse. Anecdotally, some people who work in harm reduction have estimated that 50–90% of overdoses go unreported in Texas. According to Dr. Kasey Claborn, a research scientist and assistant professor in the psychiatry department at the University of Texas, Dell Medical School, this reporting gap—and the uncounted fatal and nonfatal overdoses it represents—extends beyond opioid use, and, significantly, beyond Texas. “In 2017, over 70,000 people died from an overdose in the United States alone,” she says. “We’re seeing a rise in stimulant, cocaine, and meth overdoses within the last five to ten years as well. We don’t necessarily just have an opioid problem. We have a drug problem in the United States.”

Without accurate information, it’s impossible to create effective solutions. Tackling this problem, in Texas and everywhere else, will require first and foremost closing the reporting gap. Getting better data to people who can put it to work in real-time—from those who direct funding and allocation of resources, to EMT and emergency room workers, law enforcement, substance abuse treatment and prevention experts, communities and families affected by substance abuse, and even those struggling with substance abuse themselves—will literally save lives.



Everything's bigger in Texas

Active involvement from the community is essential to improving the gap in reporting across Texas, Dr. Claborn says. The tool needed to capture such a broad range of data from an equally broad range of people will be of truly Texan proportions, stretching across complex urban centers—each with their own unique characteristics and challenges—and large, rural areas, some that today aren't capturing overdose data at all.

Some reporting hurdles are unique to Texas. For example, only 15 out of 154 counties have a medical examiner, so most autopsies in the state are performed by a Justice of the Peace with no training at all in substance use and overdose. Other factors contributing to the state's data gaps are more universal, such as fear of legal repercussions among users and their communities, social stigma, and, of course, the lack of a unified reporting system across the state. To be useful to—and easily used by—everyone it will reach, such a system must be scalable and versatile enough to do what it needs to do in a state where, as the saying goes, everything's bigger. Ultimately, other states will be able to use the same platform to confront their own overdose data challenges.

So, the question is, how to capture missing data in a reporting system that's scalable to Texas and beyond? With funding from the Texas Health and Human Services Commission, the technology consulting firm Maven Wave is working with Dr. Claborn and her colleagues on a five-year initiative called Project Connect to build a platform that can be widely adopted. To inspire trust that's crucial to the project's success, both from medical professionals concerned with issues like HIPAA compliance and individuals dealing with substance abuse, it must be secure as well as scalable. "We want to ensure that we're building out the right foundation of this platform from the beginning to take absolute care of this sensitive data," says Harrison Sonntag, a principal consultant in the healthcare practice at Maven Wave.



Dr. Kasey Claborn,
the Dell Medical School
at the University of
Texas at Austin

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Groundbreaking steps to get ahead of the curve

While getting actual drug users to report overdoses will be a groundbreaking step forward, it obviously presents unique challenges, both ethical and practical. A genuine understanding of the barriers to reporting is vital for creating a system that drug users will actually use. To that end, community advisory boards at five urban and rural "pilot sites" across Texas will contribute directly to quantitative and qualitative research, talking with everyone from state government employees to healthcare workers to regular citizens (including users themselves) to find out what's getting in the way of accurate data collection, reporting, and management. The knowledge gained from the pilots will help project stakeholders create an implementation protocol that's sustainable state-wide.

In year one, Maven Wave will focus on creating the project's scalable foundation, a digital platform for overdose reporting and tracking hosted in Google Cloud. An administrative dashboard with real-time data visualizations will help identify, among other things, geographic hotspots. This will help channel life-saving medications like Narcan to the places they're needed most. In years two through five, tailored applications that integrate predictive analytics will help law enforcement and other professionals get ahead of the curve so they can start preventing overdoses. A comprehensive application for substance users will not only help them report overdose data, but may also, as Sonntag explains, incorporate telemedicine for individuals who might not otherwise have access to care. The next phase will involve applications for healthcare professionals and laypersons, as well as statewide implementation and rollout.

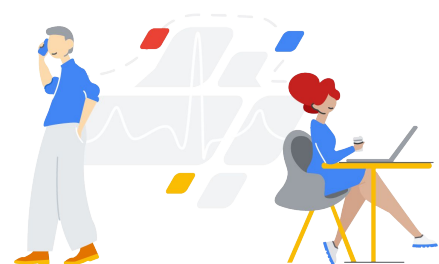
Saving lives through technology

Although it's an undeniably ambitious project in schedule and scope, only collaboration at the level of Project Connect can address a challenge as multifaceted—from both technical and human perspectives—as the opioid epidemic. “If we—Maven Wave, Google Cloud, and UT—all can play our separate roles, ultimately at the end of the day, this, if successful, can save lives,” Sonntag says. “It can help families, it can possibly prevent a mother from losing her son, a son from losing his mother or father. So it's an incredible thing to be a part of.”



Harrison Sonntag,
Principal Consultant,
healthcare practice
at Maven Wave

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To learn more about Maven Wave contact: Harrison Sonntag,
harrison.sonntag@mavenwave.com