

By Christi Oakley



Using Technology to Fight the Opioid Epidemic



Every day in the United States, 91 citizens die from an opioid overdose—a rate of one person every 16 minutes, according to the Centers for Disease Control and Prevention.

Hamilton County in Ohio is considered by many as “ground zero” for the opioid crisis. During a typical week in the summer of 2017, this region had more than 180 overdoses, 18 deaths, more than 200 heroin users in jail, and 15 babies born with heroin-related medical problems.¹

But the opioid addiction problem isn’t unique to Ohio. Consider these statistics:

- Philadelphia had more than 840 overdose deaths in 2016, an 80 percent increase from 2013. Eighty percent of those overdose deaths involved opioids, including prescription painkillers, heroin and fentanyl, according to the Philadelphia Department of Public Health.

- In Virginia,² heroin overdoses nearly doubled from 2011–2013, with the high-income, educated Northern Virginia area experiencing a 164 percent increase.

- In Montana, children have one of the nation’s highest rates of prescription drug misuse. Almost 10 percent of youth aged 12 to 17 have reported misusing prescription painkillers, according to the Montana Department of Public Health and Human Services.

From coast to coast, this crisis has spread across the wealthy, middle-income and low- to no-income populations, impacting children, parents, and grandparents, and prevailing in big cities and small towns alike.

With multiple efforts underway to combat this epidemic, including research, education, and legislation,

government agencies are using new tools to engage with citizens. And they are using the very same systems that consumers employ to buy a plane ticket, order pizza, or locate a dog groomer.

Public-sector agencies have partnered with technology companies such as Oracle to reach the people who need assistance, and engage with them in their channel of choice to connect them with knowledge and services in a private and secure manner. Oracle’s cloud-based solution enables targeted outreach to inform and engage—aimed at both prevention and access to information and assistance. The Oracle solution enables modern citizen engagement and personalized interactions—for real-time access, day or night, to knowledge, advice, and service options.

For example, social workers and medical professionals can:

- Connect and analyze the behaviors, attributes, and activities of citizens, proactively engaging with them through prevention campaigns and targeted, timely information.
- Employ a citizen experience and case management solution that manages citizen interactions across all channels throughout the case lifecycle.
- Take advantage of big data and policy and process automation for diagnostic screening, guided intake and personalized decisions, and scored assessments of citizen needs for accurate and appropriate decision-making.

As state and local agencies wrestle with how to reach the affected citizenry, they need to ensure that their technology solution can deliver on multiple channels, including online and mobile options. The goal is to create a personalized, consistent experience that facilitates transparency and trust, and allows citizens to communicate with government in the ways with which they are most comfortable. Often, this means using social media channels such as Twitter or Facebook for outreach. For instance, a user who enters “opioid advice” in a web search engine would potentially be served up ads on these channels advertising government help lines or clinics. Often, chatbots can respond to time-sensitive requirements by asking the user a few simple questions and then routing them to the appropriate solution, no matter the time of day or night.

For its part, Oracle has equipped nonprofit organizations with cloud-based software that includes functionality to drive helpdesks and websites. These solutions guide people to the appropriate treatment facility options that best meet their circumstances (e.g., substance used, where they live, availability and type of health insurance, distance able to travel) so they can quickly get the help and medical services they need. Because the software is cloud based, it can be up and running very quickly, without up-front investment in hardware or infrastructure. One example is the Massachusetts Substance Use Helpline (<https://helplinema.org>), which is run

The Opioid Epidemic BY THE NUMBERS (2016)

116

People died every day from opioid-related drug overdoses

11.5 million

People misused prescription opioids¹

42,249

People died from overdosing on opioids²

2.1 million

People had an opioid use disorder¹

948,000

People used heroin¹

17,087

Deaths attributed to overdosing on commonly prescribed opioids²

19,413

Deaths attributed to overdosing on synthetic opioids other than methadone²

15,469

Deaths attributed to overdosing on heroin²

\$504 billion

In economic costs²

Sources: 1) 2016 National Survey on Drug Use and Health; 2) Mortality in the United States, 2016 NCHS Data Brief No. 293, December 2017; 3) CEA Report: The underestimated cost of the opioid crisis, 2017.

by the nonprofit Health Resources in Action on behalf of the Massachusetts Bureau of Substance Abuse Services. Oracle’s cloud-based software runs this helpline and website, providing the capabilities to help state and local governments combat this multifaceted epidemic. This customer experience solution provides the means to proactively engage with citizens and improve access to treatment and care, and,

ultimately, to improve outcomes for agencies and the citizens they serve.

Another technology lever that can potentially mitigate this nationwide scourge is the use and implementation of data analytics to better comprehend and solve social issues. Oracle’s business intelligence and adaptive intelligence capabilities provide predictive analytics for actionable insights, identification of patterns of abuse, and smart feedback on agency and provider performance. The ability to integrate a wide range and disparate type of data sources, including insurance and provider coverage, helps to streamline intake and referral with improved data quality. The end result produces positive social outcomes and citizen satisfaction with:

- Proactive, modern engagement between citizens and government to ensure citizens receive the right services at the right time
- Omni-channel delivery, including online and mobile options, of government services
- Informed decision-making and delivery of appropriate services to optimize policy with social outcomes and contain cost

Collaborate to Maximize Outcomes

Government agencies must effectively manage citizen interactions and relationships, across public and private agencies, over the case lifecycle. Collaboration with stakeholders, both inside and outside government, enables agencies to quickly deliver the right service. Utilizing technology—like collaboration tools, machine learning and artificial intelligence, and predictive analytics—helps government recommend the best possible treatment and services to maximize outcomes for its citizens. **P**

Reference Notes

1. The Cincinnati Enquirer. <https://www.cincinnati.com/pages/interactives/seven-days-of-heroin-epidemic-cincinnati/>
2. Hardesthitva.com, in coordination with the Commonwealth of Virginia Office of the Attorney General. <http://hardesthitva.com/>

Christi Oakley is a Customer Experience Leader with Oracle Public Sector.