CONCLUSIONS PAPER

Prescription Pain Killers: The Latest Threat to Child Welfare

How analytics can play a role in improving child well being, safety and permanency

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THE POWER TO KNOW.

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Children caught in the epidemic

In September 2016, East Liverpool, Ohio, police posted photos on Facebook of two adults – believed to have overdosed on heroin – passed out in a car with a four-year-old boy in the back seat. Officers had seen the Ford Explorer driving erratically and then slamming on the brakes as it approached a stopped school bus that was dropping off kids.

The photo went viral on social media. In an official statement, the city defended its actions in making the photo public: "We feel it necessary to show the other side of this horrible drug. We feel we need to be a voice for the children caught up in this horrible mess. This child can't speak for himself, but we are hopeful his story can convince another user to think twice about injecting this poison while having a child in their custody."

The abuse of opiates is a public health epidemic. Synthetic opiates prescribed by doctors actually represent a bigger risk than black-market counterparts such as heroin. According to a 2015 report from US Department of Health and Human Services:

- In 2014, 1.9 million Americans age 12 and older were abusing prescription pain-killers, compared to 586,000 abusing heroin.
- In 2014, there were 29,467 opioid-related overdoses leading to death – 18,893 from prescription pain relievers compared to 10,574 from heroin.
- Sales of prescription pain relievers jumped 400 percent from 1999 to 2010. In 2012, 259 million prescriptions were written for opioids – enough for every adult American to have a bottle of pills.
- 1.4 million people used prescription painkillers non-medically for the first time in the past year, starting at an average age of 21. Four out of five heroin users started out by misusing prescription painkillers.

If those figures aren't sobering enough, consider the ease with which these drugs can be obtained. The HHS survey found that 50.5 percent of people who misused prescription painkillers got them from a friend or relative for free, and 22.1 percent got them from a doctor. The euphoria these drugs can produce makes them highly addictive and widely misused. Drug overdoses are now the leading cause of acci-dental death in the US.

This epidemic puts children at serious risk. Parents may neglect parenting responsibilities. They may leave children alone while seeking, obtaining or using opiates. They may lose awareness or consciousness while under the influence and be unable to supervise or protect children. They may expose children to dealers, other users and drug manufacturing operations – all unsafe and dangerous propositions.

One mother recalled that when she was high, she didn't even remember she had kids. Friends enabled her by helping care for her daughter. Child Protective Services was called repeatedly, but the mother knew how to play the game and tell social workers what they wanted to hear. Nothing was proven. A child whose parents were both addicted to prescription opiates recalled being left alone, locked in a room for days with dirty clothes and inadequate food.

As opiate use has surged over the past decade, stories such as these have become all too familiar to child welfare workers. For example:

- A state survey in Vermont found opioid use was a factor in 80 percent of cases in which a child under age 3 was taken into custody, while the number of children in Department of Children and Families (DCF) custody grew 40 percent over two years.
- In Indiana, about 2,600 children were removed from homes in a six-month period due to parents' drug abuse, a 71 percent increase from two years earlier.
- In Georgia, drug abuse has been a factor in about 40 percent of cases where a child was removed from a family – up about 25 percent from the same period two years earlier.
- The number of children removed from their homes in a tri-county area in Florida more than doubled from 2013 to 2015, according to DCF data.

Nationally, between 60 percent and 80 percent of substantiated child abuse and neglect cases involve a parent or guardian abusing substances. Every 19 minutes in America, a baby is born dependent on opioids.

For those working in the criminal justice system, child welfare agencies, emergency responders, health care and substance abuse programs, these statistics are everyday realities. Yet we're not doing one critical thing that is possible – and realistically achievable – to change this trajectory and protect at-risk children.

Some jurisdictions have no way to document what to many seems obvious: that the opioid crisis is one of the factors driving an increase in the child protection case load, which has soared to record levels.

We can do more to protect children

> "The bottom line for child welfare practitioners? The presence of prescription drugs in families' lives is something we must be able to assess and, if necessary, address. We aren't medical professionals, so this is something we must do in partnership with physicians, mental health providers, substance abuse counselors, and other experts. But we do have an important part to play."
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> – **Children's Services Practice Notes for North Carolina's Child Welfare Workers**

Virtually all states, the District of Columbia, Guam and the US Virgin Islands have laws within their child protection statutes that address substance abuse by parents. For example:

- The Child Abuse Prevention and Treatment Act requires states to have policies and procedures in place to notify child protective services agencies of substance-exposed newborns and to establish a plan of safe care for them.
- Many states have expanded the civil definition of child abuse or neglect to address concerns about the negative effects on children when parents or other household members abuse alcohol or drugs or engage in illegal drug-related activity.
- In about 20 states the manufacture or possession of methamphetamine in the presence of a child is a felony, and in 10 states, the manufacture or possession of any controlled substance in the presence of a child is a felony.

Linking prescription data with child welfare data is a smart, powerful way to protect children from the harmful side effects of opioid abuse in their families or households.

Civil and criminal penalties are a start, but addiction doesn't answer to common sense and law. Users who are dependent on these drugs typically hope to have their activities go undetected. They are not likely to admit their addiction.

Professionals in the child welfare and criminal justice systems need better visibility into the issue – which children are at risk, which users need help for addiction, or better yet, how to prevent addiction and the associated risks to children at the earliest warning signs.

To inform better decisions and outcomes, we need more and better analytics and new ways of working together.

Get more insights out of what you already have

A lot of effort has been put into state-run prescription drug monitoring programs (PDMPs) that establish databases of prescriptions dispensed for opioids, with secure online portals for accessing that data. The concept is good: Provide a comprehensive view of prescription and use patterns to make it easy for pharmacies, providers and policymakers to spot telltale signs of abuse/addiction.

But in practice, PDMP data isn't necessarily turned into insights. Most PDMPs simply collect data about what was dispensed. Data sharing across agencies is fettered by cultural barriers and privacy concerns. Few agencies actively analyze the data to find inappropriate or suspicious behaviors. There is little or no tracking of which parents/guardians are addicted to prescription drugs. Nobody is analyzing this data for purposes of child welfare – or putting those insights into the hands of social workers.

It's a groundbreaking concept, but once you get past cultural obstacles to cross-agency data sharing, it is technically possible today – pretty straightforward, actually. Here are three prime opportunities where child welfare agencies can use analytics to improve the lives and well-being of children:

Direct prescription alert. If a prescription for a controlled substance is written for a child you are tracking and monitoring or a child in the state's custody, you want to know. With data linking from the PDMP to child welfare records, a system can automatically deliver an alert to the case worker for that child. With that information at hand, case workers can be more proactive in managing care plans.

Household presence alert. Is a parent or family member doctor-shopping to get an excessive number of prescriptions? This type of analysis draws on PDMP data to physically map the locations of physicians and pharmacies associated with an individual.

Unlike sifting through lines in a text report, the visual presentation makes it quickly apparent to a social worker when a patient has visited multiple providers and dispensers for controlled substances. With probabilistic matching – also known as deterministic matching or entity resolution – these links become clear even if the patient uses multiple identities or gets variants of a substance under different product names.

When a parent or household member is seeing multiple physicians and using more than one pharmacy, the PDMP's simple list of prescriptions can get difficult to decipher, and the prescription is just one piece of the puzzle. You need to be able to bring in other data, such as electronic health records and child welfare records, to get full context.

Risk scoring for substance abuse likelihood. With robust data integration and advanced analytics, you can examine a confluence of circumstances that collectively points to imminent risk for a child. Using predictive modeling, classification models and other analytical techniques with perhaps 40 or 50 different types of variables, the system can identify children who have elevated risk factors, and alert social workers. Those social workers can then use their best judgment to determine a risk-mitigation strategy. This is pushing the envelope of creativity in this area, but it shows where the art of the possible will go.

Household-centric view

Using data that state governments already collect, some health care experts are using analytics to create a medicine cabinet view of all prescriptions for all people known to be in a child's household. Alerts are issued only when analysis points to a high probability of a high-risk situation for a child. Using a very controlled and governed process, these alerts are surfaced only to people who need to see them, and only when there is a high risk of harm to a child.

There are concerns about regulatory limits on disclosure of patient-level data, but policymakers in some jurisdictions are starting to take a stand on data sharing when it applies to child safety and well-being. They are asking the core question: Which is more important, privacy rights or saving a child from being killed or dying because of opioid-related neglect or abuse?

Closing thoughts

States collect a wealth of data on prescriptions, but the data isn't delivering the value it can – and should. PDMP data should be shared with child welfare agencies to help resolve the opioid epidemic and the harm children face as a result. Analytics can pinpoint potentially troubling situations quickly to alert case workers. Case workers gain a broader picture of what is happening in children's lives.

This innovative approach is not about automating the role of case workers or overriding their experience, intuition and knowledge. It is about giving case workers good information, not just data, to make better-informed decisions about children and families.

States collect a wealth of data on prescriptions, but the data is underused.

Analytics can quickly pinpoint risky situations to alert case workers.

Linking prescription data with child welfare data can close the loop to protect children from the effects of opioid abuse in their families or households.

Data integration and analytics have tremendous potential to stop addiction before it starts, identify and prioritize high-risk situations, and develop better approaches to support at-risk families. Bringing together data from pharmacies, medical providers, child welfare records and patient records helps everybody to work together more proactively, see and understand the bigger picture, and clarify and focus on the outcomes we want – protecting children from harm and improving their lives.

Learn more

Read the SAS white paper, *Data and Analytics to Combat the Opioid Epidemic*.

Learn about SAS® solutions for state and local government.

Watch the on-demand webcast, *How Data Helps Protect At-Risk Children*.

To contact your local SAS office, please visit: sas.com/offices