HARNESSING THE
POWER OF DATA
PERFECT STORM
Factors converge to create data surge

Keith Griffiths

Journal Editorial Board Member and RedFlash Group President Keith Griffiths interviewed Todd Stout, CEO of FirstWatch, a Priority Dispatch® and IAED™ partner that helps public safety agencies improve by turning raw data into actionable information. Their focus: Why data matters.

Q. Why do you think there is such a surge of interest in using data?
A. I believe there are several things coming together at the same time for kind of a “perfect storm.” EMS in general is moving toward evidence-based practices and decision-making. Public safety, and by that I mean 911, EMS, fire, and police, doesn’t have enough resources. Many are even having to cut costs while their call volume grows. So, they need to do more with less. You can’t really optimize the use of the resources without good data.

At the same time, elected officials are having to make tough decisions about where to spend their budget. Citizens are holding them accountable for results, and that means using data to justify what they’re doing.

Finally, a new generation of leaders are just more comfortable with technology and data.

Q. What is the value of CAD data vs. what you can get from ProQA® Paramount?
A. There are actually a variety of data sources in public safety, and their components can be misunderstood.

Phone data provides real-time data that gives a good idea of just how busy the communication center is because they often handle administrative and other phone calls that aren’t entered into the CAD. It also helps track the total time a caller is waiting before their call is picked up, and whether the phone data includes information from the primary PSAP and the beginning of the 911 call process from the caller’s point of view.

CAD data provides great real-time information about the call, including the exact location and the history of call information. This includes time stamps, address changes or corrections, upgrades or downgrades from other responders on the scene, the units available and assigned at the time of the call, the number of times we’ve been to this address before, whether a patient or suspect was transported, the
state of the rest of the system, and even how long the unit and crew has been on duty and how busy they were prior to the call. And actually, there’s a lot more.

ProQA Paramount data provides a clear, real-time, standardized view of what the center knew about the patient or call before any responders arrived, what instructions for treatment or medication were given to the caller, what priority for the call was recommended vs. what was used, and what resources were recommended.

ePCR and RMS data provides slightly delayed data, which is typically not available until the responder finishes completing the chart, with much more detailed and specific information about the call from a trained responder’s perspective on the scene.

Q. What are some examples of how 911 centers are using data in innovative ways?

A. Oh gosh, this is a hard question to do justice to because there are so many ways that folks are using their center’s data, and even when they are working on the same problems, they may take different approaches. What’s new or innovative to one agency may be similar to what another agency has done for years.

That said, some of the cool ways agencies are using dispatch data include reducing the time police officers spend at hospitals with psychiatric patients so they can be back on the street. Some places are balancing crew workload to manage fatigue and reduce stress to improve the safety and well-being of our crews and patients.

Another trend with our customers is to measure and improve what’s called “population health equity.” A hot topic in public health is working to ensure that all folks in all areas and of all means receive the same high-quality care and service. That concept is also making its way into EMS. In many communities, response time for everything from no-transport rates to clinical quality.

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I find it interesting how fire departments are using data to identify and target areas to reduce community risk, like areas with high fire loss for smoke detector distribution programs, illegal burning, fall prevention, and other cool stuff.

Q. The opioid crisis is officially a national emergency. What is the role of public safety agencies in using data to aid in preventing deaths?

A. Opioid overdoses are responsible for over 30,000 deaths per year and hurt many more people directly and indirectly, as most addictions do. We are helping two different research teams who are using 911 and EMS data to learn more about the problem and find ways to help sooner.

Public safety agencies around the country are helping in the fight in many different ways, but the most successful seem to be using data to drive not only their own efforts, but many joint task forces where EMS, fire, and law enforcement are working with public health and social services. They are not only using data to look at statistical and geographical trends, but also notifying teams in real time so they can try to connect with the patient while they may be most receptive to interventions.

We are starting to compile some best practices from our customers around the U.S. and Canada. The variations and similarities are fascinating. The information at www.firstwatch.net/opioid will be available soon.

Q. What are the biggest mistakes people make when trying to use data to make decisions?

A. Well, there are a few big ones. Perhaps the most common is to identify a problem with a single or only a few data points and act on it, as if it were really a trend. Quite often, the supposed problem is really just a normal change in whatever is being measured, and when looked at over time, it’s clear that it’s really an insignificant change, and the time spent on it was wasted.

Another big mistake is implementing a change throughout an organization without testing it on a small scale first. Leaders get an idea, read some research, or even want to implement best practices from another organization, and create a policy and roll it out organization-wide. My experience is that even great ideas or projects almost inevitably need small or large tweaks to work well in that specific organization, and other ideas or changes just don’t work in some places.

If you start small and tweak the change as you increase the scope, projects are almost always more successful. You also have the added benefit of being able to abandon what turned out to be a bad idea.

The third thing that I see a lot is using old data to try to effect change. By that I mean waiting until the end of the month, quarter, or—heaven forbid—the end of the year in those annual evaluations to talk with folks about what they need to improve. For a lot of us who started in the public safety trenches, even a week from an event to constructive feedback is a long time. Research shows that the closer the feedback—positive or negative—is to the event the feedback is about, the greater the likelihood of change and improvement, and the faster the change takes place.

The last thing that comes to mind is kind of subtle. Leaders often work to make “decisions” when they should be thinking of making “improvements.” It may just be me, but I think a “decision” tends to be thought of as final, something that needs to be perfect, and sometimes is thought of as an isolated choice, rather than as part of an overall approach. But when people think about making “improvements,” they seem to tend to be a little more creative and flexible and are less invested in their “decision.” That translates to being able to admit a mistake, adjust, and move on.