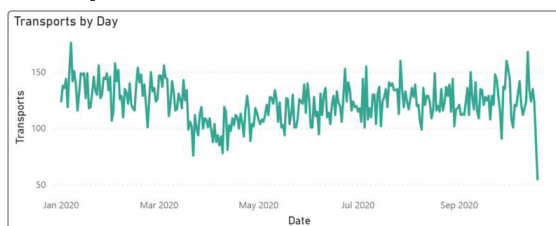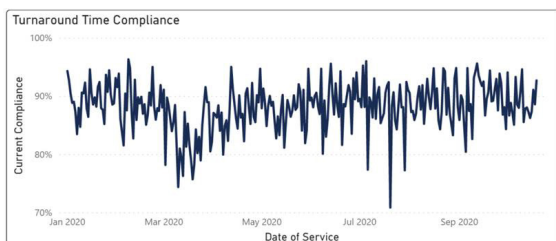# Using Data in the COVID Hot Zone

At a Glance

While no one knew exactly where and how COVID-19 would strike the U.S., Snohomish Regional Fire and Rescue had in some ways been preparing for this moment for years through its innovative and always evolving uses of 911, fire, and EMS data. Here are just a few examples of measures they have kept a close eye on during the pandemic.
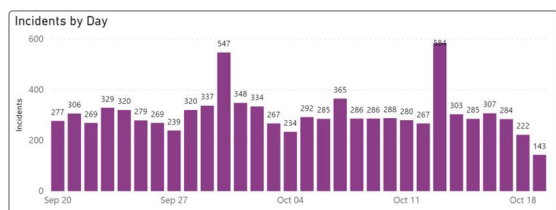
Transport Volume:

Turnaround Time:

COVID-19 Cases:

A robust system of data collection, sharing, and analysis helped prepare emergency officials in Snohomish County, Washington, when they were confronted with the nation's first confirmed case of COVID-19

Background

The first person to test positive for the novel coronavirus in the United States presented at an urgent care in Snohomish County, Washington, which spans from the densely populated northern suburbs of Seattle to the Cascade Mountains. Within Snohomish County, a single public safety answering point receives all 911 calls and dispatches dozens of police, fire, and EMS services, including Snohomish Regional Fire and Rescue, which includes the cities of Lake Stevens, Mill Creek, and Monroe and borders on King County. Snohomish serves a population of over 162,000 and responded to more than 17,000 calls in 2019.

The Need

Long before they had heard of COVID-19, the leaders of Snohomish were already big users of data. When a bad flu season hit several years ago, for example, they closely tracked delays in transferring patients at emergency rooms. Clinical quality is measured regularly using data from the 911 center, EMS patient care reports, and hospitals. So when COVID-19 arrived, everyone knew data would play a huge role in helping prepare for, mitigate, and respond to the pandemic.

Solution

For Snohomish, Deputy Chief Scott Dorsey knew that COVID-19 presented multiple layers of potential problems to address: changes in call volume and hospital turn-around time could stress the system and its ability to respond, exposure to the virus and community spread could lead to high numbers of quarantine or sick firefighters, and the limited supply of personal protective equipment could put patients and clinicians at risk, just to name a few.

Dorsey and his colleagues tracked all of these points using data from multiple systems, including CAD and emergency medical dispatch information, electronic patient care reports, staffing software, hospital records systems, and more. Using control charts, he could easily see whether anything had peaked or dipped outside normal ranges and get a full picture of how COVID-19 was impacting Snohomish's operations. FirstWatch helped pull all these disparate datasets together and allow the team to access them in real time.

"It is a huge benefit that helps our response and allows us to maintain situational awareness moving forward," - Deputy Chief Scott Dorsey, Snohomish Regional Fire and Rescue

At the county level, Dorsey worked with his colleagues in other agencies and at the Snohomish County Department of Emergency Management to get a wider picture of the situation. When certain data points went outside normal thresholds, the FirstWatch system alerted officials immediately.

"It's like having extra sets of eyes," - Eric Cooper, MD, Snohomish County EMS Medical Director

But partnering with FirstWatch meant more than having critical and actionable data at their fingertips. Throughout COVID-19, FirstWatch has fostered collaboration between the agencies it works with and its own experts, such as FirstWatch Medical Director Silvia Verdugo, MD, MPH. When Snohomish County wanted to set up monitoring and alerting at its 911 center, for example, FirstWatch not only had the technology, but also had already been thinking about what to monitor for—and how.

"Silvia was already defining criteria, so it wasn't just up to us to come and say this what we want, because sometimes we don't know what we want," says Kurt Mills, director of Snohomish County 911. Mills and his Snohomish County colleagues also participated in webinars and other conversations with FirstWatch team members and customers. "That community of brains that can come together, and there's nothing like that on the planet for EMS and for public safety."

Conclusion

The team at Snohomish Regional Fire and Rescue, Snohomish County 911, and their colleagues throughout the county have found that having reliable, instant information allows them to make better decisions in the moment and plan for whatever might come next—both during the COVID-19 response and beyond.

"Otherwise you're kind of walking around blind," explains Dr. Cooper, "and not knowing that you're blind."

To watch the videos related to this interview, visit: firstwatch.net/story20200528

FirstWatch is proud to partner with innovative thinkers like Scott Dorsey and his team in Snohomish County, Washington, to help their communities fight COVID-19.
For more information, **visit firstwatch.net**

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