

RESULTS WASHINGTON CASE STUDY: Timely Results Matter

Improving the processes for DNA testing. At the Washington State Patrol's crime lab in Marysville, scientists have been trying to keep up with an ever-growing demand for forensic DNA testing, and timely results matter. A team from the lab decided to use Lean to streamline their processes and speed up testing.

The Washington State Patrol's Crime Lab in Marysville, using Lean principles, has sharply cut the processing time for forensic DNA tests. The changes shaved 20 percent off processing times for testing samples, allowing the lab to handle a record number of cases in 2015.

Forensic DNA testing from crime scene evidence helps law enforcement identify and prosecute violent criminals. It also helps exonerate the wrongly accused. Timely test results are essential for justice and to protect the public.

The Washington State Patrol runs eight crime labs throughout the state. At the Marysville Crime Laboratory, where demand for DNA testing was increasing under constrained resources, a team in late 2014 launched a Lean improvement effort. The leader of the Lean improvement effort was Kristina Hoffman, a scientist at the lab.



Improvements: The team made a number of improvements. The lab staff set up a display board where they track performance. They started weekly 15-minute team meetings to discuss schedules and caseloads. They hired a lab technician to do routine quality-control tasks like cleaning and instrument maintenance, freeing up scientists to spend more time on casework. They came up with a system to separate – and flag -- incoming lab requests from other paperwork. They adopted a new case assignment system to minimize batch sizes and level the work load. They simplified documents, removing redundant information. And they embraced newer testing methods, shortening testing times.

“Although the DNA unit’s work is conducted in a scientific setting, most of the improvements targeted administrative and management processes,” said Hoffman.

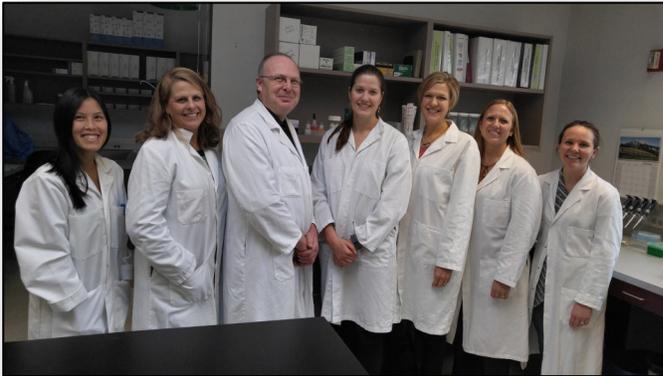
“The increase in output was significant,” said Hoffman. “Never before has the DNA unit completed as many requests a year as it did in 2015.”

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- Kristina Hoffman

Outcome: The changes cut 18 days off the average turnaround time for a DNA testing request, from 88 days to 70 days. The number of samples processed annually rose 18 percent, from 1,308 to 1,548. A backlog of cases needing testing was cut by 10 percent. And staff overtime dropped 56 percent, saving more than \$5,000 a year.

The lab is continuing to work on ways to reduce the DNA test turnaround time further, although the demand for testing continues to rise. The improvements and results at the Marysville lab have been shared with the state's seven other crime labs, four of which also do DNA testing.



Washington State Patrol's Crime Lab DNA testing team

“Adopting Lean principles in forensic science laboratories can be an effective way to better meet the growing demand for services,” said Hoffman. “We showed we can deliver accurate and reliable results to customers faster, which helps enhance public safety.”