

North Dakota Roadside Oral Fluid Pilot Project Summary

The North Dakota Roadside Oral Fluid Pilot Project (ROFPP) started as a shared vision of our State Traffic Safety Resource Prosecutor (TSRP) and an employee of our State Highway Safety Office (HSO). The TSRP and HSO worked gathering stakeholders in the state to determine if there was interest in starting a ROFPP. Stakeholders included: TSRP; HSO; DRE State Coordinator and other DRE officers (Highway Patrol, Police Departments, and Sheriff's Offices); Crime Laboratory (State Toxicologist); and researchers from North Dakota State University Upper Great Plains Transportation Institute (NDSU UGPTI). A virtual meeting was held on December 2020 with all the stakeholders to determine interest in the project.

At the initial meeting the stakeholders expressed interest in conducting a ROFPP. Until the ROFPP started, the group met virtually and consistently every month for a year. These meetings were key to setting up the infrastructure for the ROFPP.

The Intoximeters SoToxa device was chosen by the committee to be used for the ROFPP. The device was chosen because it has been previously well studied in other states. The device was small and hand-held. The Crime Laboratory purchased 20 devices with grant funds given to the laboratory from the HSO.

The committee wanted to see how the device would perform in our state with the current testing procedures available from the Crime Laboratory. A device evaluation was completed by comparing the SoToxa device results to evidentiary blood specimen results from the Crime Laboratory.

The committee wanted to study drug impaired driving cases from the state, but they did not want to interfere with the criminal process for cases. The committee developed a consent form for subjects to sign after a DRE evaluation was completed on the subject. For the ROFPP the SoToxa device was not used at roadside as it was intended but was used after the subject consented to the test. A goal of obtaining 50 tests for the ROFPP was set by the committee.

Researchers from NDSU UGPTI set up systems to capture the data from the study. They developed a portal for officers to submit the data for their cases. DRE officers from the committee recruited 31 DRE officers to be part of the study.

The project finally kicked off with an in-person training held in Bismarck on January 6, 2022. 19 DRE officers attended the training. The training was recorded and a researcher from NDSU UGPTI turned the training into an online version for other officers to take at a later time. An additional 12 DRE officers took advantage of this training option.

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The committee continued to meet quarterly after the project kick off to review data, discuss how the project was going, issues encountered, and started to analyze data from the ROFPP. NDSU UGPTI compiled the data (number of positive results, combination results, driver demographics, reason for stop, time of stop, DRE evaluation results, Crime Laboratory results, etc.). The Crime laboratory completed the device evaluation for Sensitivity, Specificity, Positive Predictive Value, Negative Predictive Value, and Accuracy for each test panel of the device.

At the one-year anniversary date (January 2023) of the ROFPP kickoff a virtual meeting was held with all committee members and DRE officers participating in the project. Some study results were discussed at this meeting. A DRE officer who obtained the greatest number of test shared tips with other DRE officers for getting subjects to agree to take the SoToxa test.

The committee met and exceeded the goal of 50 tests, and 52 tests were obtained by July 2023, the date of the last sample included in the pilot. The project device evaluation results for Sensitivity, Specificity, Positive Predictive Value, Negative Predictive Value, and Accuracy for each test panel of the device were very similar to the results obtained by the much larger study conducted in Michigan. The committee was pleased with the outcome of the study.

The devices were distributed to ARIDE officers in the fall of 2024. We have 134 ARIDE officers trained on the device use, with 33 devices in the field as of January 2026.