



Idaho State Police

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To: All Idaho Coroners
From: Matthew Gamette, ISP Forensic Services Laboratory System Director
Subject: Toxicology Screening Pilot Program
Date: December 12, 2023

Idaho State Police Forensic Services (ISPFS) has started a pilot project with coroners in Idaho to perform rapid toxicology screening on suspected drug overdose death blood samples. ISPFS performs screening/presumptive toxicology analysis on blood samples within two business days of them being received at the Meridian ISPFS laboratory. These screening/presumptive results are reported out to the coroner office to assist with autopsy and scene processing decisions. ISPFS will then perform a full toxicology panel with many of the drugs in the panel being quantified (assuming the coroner is not using another forensic science laboratory for confirmation toxicology). The results of this confirmatory testing will be reported separately. The confirmatory analysis is essential in this pilot study for interpretive and evaluation purposes by allowing ISPFS to evaluate any limitations of the screening/presumptive method. In addition, ISPFS will either enter the data into the ODMap program for the state of Idaho or will train the county coroner to do the entry for themselves. To address questions about this program, ISPFS provides the following question and answer document.

Is there a cost for a coroner's office to participate?

No, ISPFS will perform screening/presumptive and confirmatory testing at no cost to the coroner's office. ISPFS will provide the extra blood tube, shipping containers, and evidence packaging for the blood evidence. There is no cost to the coroner's office for any analysis performed by ISPFS. If a coroner's office decides to send confirmatory toxicology testing to a private forensic science laboratory, the coroner would bear the cost of that analysis and would be responsible for arranging that testing, as well as shipping the sample.

Does ISPFS doing the screening prevent us from using another lab for confirmations?

No, ISPFS is an accredited confirmatory toxicology laboratory and can perform both rapid screening/presumptive analysis and robust toxicology confirmation work. ISPFS can provide qualitative confirmatory results on 113 compounds and quantitative confirmatory results on 55 compounds, including fentanyl. ISPFS is constantly adding more drugs to the confirmation panels we analyze and report. However, if the coroner wants to send samples to a private laboratory, ISPFS will work with that laboratory to evaluate the screening/presumptive results as compared to the confirmed results at the private lab. While toxicology confirmation testing is required to participate in this pilot program, ISPFS will perform that confirmation at no cost to the submitting coroner agency or work with the private laboratory selected by the coroner office to obtain the results of their testing.

Does using ISPFS for toxicology violate any current or potential coroner accreditation?

No, ISPFS is accredited in confirmatory forensic toxicology to the ISO 17025:2017 standard through the [American Association for Laboratory Accreditation \(A2LA\)](#). This accreditation is acceptable to all NAME and IACME accreditation programs. Coroner offices can be accredited in either the NAME or IACME process while using ISPFS results. The ISPFS lead toxicologist has a master's degree and is certified by the American Board of Forensic Toxicology (ABFT). ISPFS has confirmed this information with both the NAME and IACME accreditation bodies. ISPFS toxicology results are being used in Idaho courts daily.

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What if the screening results do not agree with the confirmatory results?

This is exactly what the ISPFS pilot study is set up to evaluate. A screening or presumptive result is one where the possibility exists for a false positive (the test incorrectly indicates that the substance is present when it is not) or a false negative (the test incorrectly indicates that the substance is absent when it is present). Screening/presumptive methods are generally faster but may instances of cross reactivity or limited sensitivity. Confirmatory results generally take longer to run, but the instrumentation and methods are designed to eliminate false positive or false negative possibilities.

In the pilot study, ISPFS is evaluating the Randox Evidence MultiStat screening/presumptive testing instrument to determine if there are false positives or false negatives from the screening instrument when compared with confirmatory toxicology results run on LC/MS/MS instrumentation. ISPFS performed a complete evaluation of the Randox MultiStat instrument before we started this pilot study, and we will continue evaluating the instrument with these real-world coroner samples for at least a year to assess the reliability, accuracy, and sensitivity of the screening data. We compare the screening results to the confirmatory results in every pilot study case. Idaho prosecutors have been consulted, and they understand that a screening instrument will have potential false positive and false negative results. However, since every case has a confirmatory result, this does not present an issue in court. Presumptive testing happens every day in Idaho on drug cases, and judges understand that a screening result may not be completely concordant with the confirmatory result. This can be explained by the toxicologist on the witness stand (if necessary). Non concordance can also occur due to the different detection limits of each process and does not equate to a false positive or false negative.

Who is funding this work?

ISPFS is providing the analysts, confirmatory toxicology, and other infrastructure. The Idaho Department of Health and Welfare (IDHW) is providing funding for the Randox instrument, the reagents, and training funds for the Idaho coroners. IDHW funds are also being used to support the ODMAP entry being facilitated by ISPFS when requested by the coroner's office. IDHW funds come from the United States Centers for Disease Control and Prevention under the Overdose to Action (OD2A) program. ISPFS is a subgrantee to IDHW and there is an MOU data sharing agreement in place for this work.

What is ODMAP and why is it important?

ODMAP is a national program that is being used to geolocate where overdoses are occurring in Idaho so that interdiction, enforcement, and treatment resources can be deployed in a more data driven way. ISPFS has committed to IDHW to facilitate ODMAP entry on any suspected overdose death case submitted to the lab. ISPFS has a contractor available to do this entry for the coroner's office (if requested) or ISPFS will train the coroner's office to do this entry for themselves. All samples worked under this program will be required to be entered into ODMAP. There is no cost to use the ODMAP program.

What will happen when the pilot project is complete?

ISPFS has full intention to secure more funding from IDHW to continue to run this program out of all three of our forensic science labs (if there is a high enough submission state-wide). When funding is no longer available from IDHW for this work, ISPFS will work with the Governor's Office and the Idaho Legislature for continued sustainable funding for this program under the Esto Perpetua initiative.

How does my coroner's office join this program?

All Idaho coroners are eligible to participate at no cost to the coroner's office. ISPFS has a template MOU that will be drafted for each new county coroner desiring to be added to the program. Once the MOU is signed by state and county officials, ISPFS will send collection kits to the coroner's office. ISPFS will also schedule training for the coroner's office regarding sample collection, ODMAP entry, laboratory submission, and any other training needed by the coroner. Coroners should contact ISPFS Laboratory System Director Matthew Gamette matthew.gamette@isp.idaho.gov to start the process.

What kind of training is available from ISPFS for this program?

Currently, ISPFS is offering training in collection of overdose related blood evidence. ISPFS has hired a coroner contractor to provide training in ODMAP entry, ISPFS Prelog entry, and many other coroner related topics. ISPFS is committed to find resources for additional training as requested by project participants.