## Biomonitoring (Blood Sampling) Program for PFOA in the Hoosick Falls Area

- We expect approximately 3,000 people will have had their blood drawn at Hoosick Falls and Petersburgh area biomonitoring events.
- Analysis of PFOA is a complex process, requiring sophisticated equipment and specialized staff.
- Only a handful of labs in the entire country are capable of performing PFOA analysis, and we are fortunate to have the Wadsworth Center in the NY State Department of Health.
- This is very different from "routine" blood work at annual check-ups.

## **BEHIND THE SCENES**





- At the end of every blood collection event, vials of drawn blood are placed in a centrifuge machine to separate out the serum – the liquid fraction of the whole blood.
- The serum is carefully transferred to a clean vial, packaged, labeled with the patient unique identification number, and delivered to Wadsworth that same day.

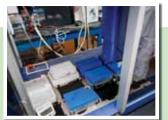




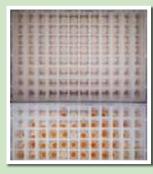
Once the serum arrives at Wadsworth, information is confidentially recorded for every vial and it receives a laboratory bar code.



A portion of the serum is then transferred from the vial to a tray that contains 96 small wells. A special machine places one serum sample from each vial into each well. This machine tracks the ID # of the sample and its location in the tray along with several quality control samples.



The next step is to remove the fats and proteins that would "gunk up" the equipment. The fat and proteins stick to a resin material in each of the 96 wells, and the purified serum passes through the resin into another 96 well plate.



• You can see the before and after here—the clean plate before serum is placed in the wells and then the plate where the tan-colored proteins and fats have bound to the resin. This step leaves a cleaner sample from which to measure the PFOA. It is a very precise process, carefully quantitated to ensure each sample meets the expected standard.



• The PFOA sample extracts are concentrated, and then transferred onto a sample injection plate.





The samples are then analyzed by liquid chromatography - mass spectrometry. Basically, this separates, detects and identifies how much of a chemical is there.



From this process, we know the amount of PFOA in each sample. You can see the results on the chromatograph. All of the results are computerized and tracked.