

# Utah Public Health Laboratory Legislative Report

## Introduction

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The mission of the Utah Public Health Laboratory is to provide high-quality testing and consultation services 24 hours a day/7 days a week to entities fulfilling a public health mandate to protect the citizens of Utah. The laboratory fulfills this mission by offering services in four main areas.

### Newborn Screening

The Newborn Screening Laboratory provides screening tests for 39 genetic or metabolic disorders that may cause significant morbidity or death if not detected and treated within the first days to weeks of life. The laboratory staff work closely with the Newborn Screening Follow-Up Program and together they provide education to hospitals and pediatricians in the proper collection and transportation of the dried blood spots. This group received the Governor's Award of Excellence in 2015 for their hard work.

### Infectious Diseases

The Infectious Diseases Laboratory provides detection for highly contagious and extremely pathogenic diseases that might affect the community. Services range from clinical based tests such as virology, serology, microbiology, and mycobacteriology to public health based tests such as rabies and bioterrorism agent detection. This group works closely with clinical laboratories regarding organism detection and characterization and with the Bureau of Epidemiology for outbreak testing coordination.

### Environmental Chemistry

The Environmental Chemistry Laboratory provides assistance to the Department of Environmental Quality in their mission to protect the environment from contaminants. Contaminants that the laboratory can screen for range from heavy metals and pesticides to agents of chemical terrorism. The laboratory assists with routine monitoring as well as emergency issues related to drinking water or recreational water contamination.

### Forensic Toxicology

The Forensic Toxicology Laboratory provides drug testing (including drugs of abuse and prescription drugs) and interpretation services for law enforcement and the Office of the Medical Examiner.

The legislature directed the Department of Health Public Health Laboratory to research and report government entities paying for services that could be provided by the Public Health Laboratory. This report is to include 1) the name of the entity, 2) the amount paid for the service, 3) the cost for the public health laboratory to offer the service, and 4) any potential barriers to the public health laboratory bidding on the services.

## Method

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In an effort to determine which departments were utilizing laboratory services, the laboratory queried the State Division of Finance Data Warehouse using four codes that are used for medical supplies and

medical services. This produced a list of every vendor associated with one of those four codes. This list was paired down by searching for any vendor names containing "lab", "laboratory", "testing services", "diagnostic centers", or "environmental consultants". From this list, we were able to determine which vendors required follow-up.

For all identified vendors, an internet search was conducted to learn more about the services offered to help the laboratory understand if we are able to match those services. Once the laboratory had a list of vendors that offered comparable services, Data Warehouse was queried again using the vendor numbers to get a reflection of which departments used that vendor and how much money was spent in FY15 per vendor. UPHL is not 100% confident that this method captured all expenses for the listed vendors, but it provided a start for an assessment.

In order for the laboratory to determine specifically which tests were ordered from the vendor, the laboratory would need the purchase order or the quote for the services rendered. Considering that each dollar total represents hundreds of transactions, it was not feasible for the laboratory to gather specifics regarding cost per test for services rendered. (See below for more details and barriers.)

## Findings

In response to the first two items, name of entity and amount paid for services, a master list was created showing the department, the vendor, and total amount spent by that department on each vendor. (See Table 1 below) The vendors are categorized based on three of the functions the public health laboratory provides, clinical (red), environmental (green), and toxicological (blue).

**Table 1**

Department	Amount
<b>Judicial Branch</b>	
Redwood Toxicology Laboratory, Inc	\$15,793.84
<b>Total</b>	<b>\$15,793.84</b>
<b>Governor's office</b>	
IHC Health Services	\$8,808.13
Labcorp	\$977.37
Redwood Toxicology Laboratory, Inc	\$3,080.42
<b>Total</b>	<b>\$12,865.92</b>
<b>Dept of Administrative Services</b>	
Environmental Protection Agency	\$420.00
<b>Total</b>	<b>\$420.00</b>
<b>Tax Commission</b>	
Intermountain MRO Services	\$56.95
<b>Total</b>	<b>\$56.95</b>
<b>Dept of Public Safety</b>	
Intermountain MRO Services	\$4,371.85
National Medical Services	\$288.00
<b>Total</b>	<b>\$4,659.85</b>

**Utah National Guard**

American West Analytical Labs	\$4,057.00
Chemtech Ford Labs	\$3,884.00
CMT Engineering Labs	\$18,199.13
<b>Total</b>	<b>\$26,140.13</b>

**Dept of Human Services**

Chemtech-Ford Labs	\$1,255.00
IHC Health Services	\$2,663.59
Redwood Toxicology Lab Services	\$513.63
<b>Total</b>	<b>\$4,432.22</b>

**Dept of Health**

ACZ Laboratories, Inc	\$1,696.00
American West Analytical Labs	\$245.00
ARUP	\$697,955.03
Collaborative Fusion, Inc	\$136,442.55
Exceltox Laboratories	\$581.52
IHC Health Services	\$14.14
Labcorp	\$2,143.83
Labcorp	\$7.30
Laboratory corporation of American Holdings	\$136.00
Mountainstar Clinical Laboratory	\$14,321.54
National Medical Services	\$171,636.19
Hach Environmental	\$692.51
Environmental Resource Associates	\$11,014.28
<b>Total</b>	<b>\$1,036,885.89</b>

**Building Board Construction**

CMT Engineering Laboratories	\$1,993.75
R&R Environmental	\$478,896.77
Intermountain Geoenvironmental Services	\$20,248.75
IHI Environmental	\$57,832.16
Hill West Environmental	\$33,908.19
<b>Total</b>	<b>\$592,879.62</b>

**Utah State Board of Education**

IHC Health Services	\$84.39
Laboratory corporation of American Holdings	\$275.24
<b>Total</b>	<b>\$359.63</b>

**Dept of Corrections**

Redwood Toxicology Lab Services	\$1,730.41
Intermountain MRO Services	\$3,046.70
<b>Total</b>	<b>\$3,046.70</b>

**Dept of Environmental Quality**

American West Analytical Labs	\$28,339.40
Energy Laboratories Inc	\$2,323.50
Labcorp Inc	\$20,867.00
USU Water Research Laboratory	\$50,369.99
Utah Veterinary Labs	\$404.27
Enviro Sciences	\$4,999.95
SWCA Inc Environmental Consultants	\$2,942.50
Sage Environmental	\$8,854.51
IHI Environmental	\$279,685.13
Hill West Environmental	\$14,506.00
Hamilton Environmental	\$116,685.14
Environmental Protection Agency	\$523,362.40
Access Environmental Services	\$54,325.47
<b>Total</b>	<b>\$1,107,665.26</b>

**School and Institutional Trust Lands Admin**

American West Analytical Labs	\$721.00
<b>Total</b>	<b>\$721.00</b>

**Department of Natural Resources**

American West Analytical Labs	\$5,073.00
CMT Engineering Laboratories	\$374.00
Utah Veterinary Labs	\$38,240.89
Intermountain Drug Testing	\$39.95
Biotracking LLC	\$2,220.00
Enviro Sciences	\$982.35
Watershed Environmental Services	\$33,935.00
Patrick Environmental	\$35,194.50
P & C Environmental LLC	\$34,235.00
Intermountain Environmental Inc	\$415.52
IHI Environmental	\$2,750.00
Hach Environmental	\$59.63
Environmental Planning Group	\$6,950.00
<b>Total</b>	<b>\$160,469.84</b>

**Department of Agriculture and Food**

Intermountain Drug Testing	\$56.95
<b>Total</b>	<b>\$56.95</b>

**Department of Commerce**

United States Drug Testing Labs Inc	\$150.00
<b>Total</b>	<b>\$150.00</b>

**Department of Transportation**

Chemtech-Ford Labs	\$60.00
Energy Laboratories Inc	\$74,500.00
Intermountain Laboratories Inc	\$7,929.54
Intermountain MRO Services	\$8,042.20
Transcon Environmental	\$78,632.56

SWCA Inc Environmental Consultants	\$16,017.65
Access Environmental Services	\$522,478.40
<b>Total</b>	<b>\$707,660.35</b>

Grand Total \$3,691,708.15

In response to the third item, “what would be the cost if the public health laboratory provided these services”, we are unable to provide a detailed cost-per-test analysis due to lack of information regarding tests requested from the vendors and lack of knowledge of volumes required for each test. With more time, the laboratory would be able to review testing needs from departments with larger test volumes, such as Natural Resources, Transportation, and Environmental Quality, and provide details regarding cost/test.

In response to the fourth item, barriers to offering/bidding on the services required of other entities, the barriers are listed per test group; clinical, environmental, and toxicological.

### Clinical Barriers

The primary barrier to the public health laboratory bidding on clinical testing services is the inability to bill Medicaid and private insurance. With the Affordable Care Act, all citizens should have health insurance and all clinical testing should be billed appropriately. The laboratory became a Medicaid provider the week of August 17<sup>th</sup> as a first step in overcoming this barrier. With this in place, the laboratory must build the infrastructure to be able to handle HIPAA compliance and billing.

A second barrier is the need or desire for “one-stop shopping”. For example, a recent RFP requested bids from laboratories that can provide testing traditional to the public health laboratory, e.g. HIV and Syphilis testing, but they wanted the same laboratory to be able to run general chemistry panels, e.g. liver enzymes. These types of general chemistry panels are not a traditional function of a public health laboratory and the laboratory does not currently offer these services.

### Environmental Barriers

The main barrier to the public health laboratory’s ability to bid on environmental services is the lack of equipment to run higher volumes. The laboratory currently operates on older machinery with many processes requiring manual manipulation of the sample. When the rate limiting factor is how many samples one person can process, the laboratory is limited as to how many samples may be processed in a given time frame. Technology has advanced and there are automated solutions for sample preparation that can process three times as many samples as a human. This allows for more volume and faster service.

Second, the laboratory is operating on a Laboratory Information Management System that is outdated. This system, purchased in the 1990’s, is not programmable as new tests are brought on-line and as demands from customers change. Therefore, all new test data and reports are prepared manually. This adds time to getting samples tested and reported and most customers expect electronic transmission of their results.

Third, the instruments that the laboratory has to work with to run testing methods are outdated. As technology changes, methods change. As a result, the laboratory is not able to adjust to newer methods with better detection limits because we have older versions of

equipment. If the laboratory had the ability to raise funds for capital purchases or the ability to amortize costs of new equipment purchases over 3-5 years, UPHL would be in a better position to purchase new equipment when needed.

Fourth, the environmental laboratory is not currently accredited for all testing methods. This is due to outdated methods and lack of funding to support accreditation. Many RFP's require that the laboratories that bid on services be accredited by a third party.

### Toxicological Barriers

The main barrier preventing the toxicology program from bidding on services is the lack of a Medical Review Officer. When drug testing is completed for job applicants or substance abuse programs, the results must be reviewed and reported by an MD. This is a common practice so that the person being tested may ask clinical questions related to the results.

## Conclusions

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The Utah Public Health Laboratory is available 24 hours/7 days a week to provide services to entities that have a public health mandate to protect citizens of Utah. This investigation has shown there is roughly \$3 million in laboratory services that are required by state entities. While the laboratory is poised to be able to accept these test requests, we are unable to determine at this time if the UPHL is able to provide comparable services for a fee that would be a savings to the state and tax-payers. With more time, the laboratory may explore the services used by the departments with the highest volumes to determine the costs for tests needed by those departments. Alternatively, the laboratory would be able to assess the needs of other departments with a right-of-first-refusal policy. This would allow the laboratory to have direct discussions with the agency about their needs, how much they have to spend on testing, and how/if the laboratory would be able to meet those needs within their budget.