Indiana State Department of Toxicology

2014 Annual Report
From March through September, the Department of Toxicology conducted 83 regional breath test training sessions in which 4,370 current breath test operators were recertified using the Intox EC/IR II instrument. Ivy Tech provided space for the training sessions for the northeastern region in Fort Wayne and for the southeastern region in Columbus as seen in Figure 1. The Indiana State Police/Indiana Department of Transportation provided space for the central region sessions as seen in Figure 2. Indiana University Northwest provided space for the training sessions at Gary as seen in Figure 3 on page 4. Vincennes University provided space for the training for the southwestern region training sessions as shown in the cover photograph.

*Figure 1: Hands-on training at Ivy Tech facility in Columbus*

*Figure 2: Lecture at the Indiana State Police Museum in Indianapolis*
Overview

The Indiana State Department of Toxicology (ISDT) provides science-based support to the state’s criminal justice system, including impaired and dangerous driving enforcement programs. The Department conducts analyses for alcohol and drugs in blood samples submitted by law enforcement agencies and provides expert testimony. Additional agency responsibilities include training and certifying breath test operators as well as inspecting, maintaining, and certifying breath testing equipment.

ISDT’s objective is to provide accurate and timely toxicological services in an ethical and forensically sound manner and an accurate and reliable breath-testing program for the State of Indiana.

We hold that quality results come through professional, ethical, and unbiased analysis of all evidentiary samples entrusted to the laboratory for testing.

The agency’s strategy is to establish a professional work environment that encourages excellence; hire highly qualified individuals that share the values of the Department; provide the appropriate resources to ensure each employee accomplishes the goals and objectives of the Department; develop a training program ensuring each employee is always learning; clearly communicate expectations, goals, and objectives to each member of the agency; and to provide the necessary technical and administrative leadership.

Budget

ISDT’s budget is comprised of general fund appropriations, limited fees to support the breath test program, and, when awarded, federal grants. In 2014 the Department was awarded two Edward Byrne Memorial Justice Assistance Grants from the Indiana Criminal Justice Institute in the amount of $15,000.00 for overtime and $38,259.00 for purchase of sample preparation equipment. The overtime grant was used from February through November and affected approximately 200 cases.

Staffing

The Department ended the year with 18 of its 23 positions filled as detailed in Table 1. The agency contracts with the Indiana Office of Technology, the State Budget Agency, and the State Personnel Department for computer support, accounting services, and human resource matters, respectively. The last two pages of this report provide the agency’s organizational structure and contact information.

Table 1: Department of Toxicology Staffing

<table>
<thead>
<tr>
<th>Position</th>
<th>Status as of 12/31/14</th>
<th>Position</th>
<th>Status as of 12/31/14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Director</td>
<td>1</td>
<td>Analytical Lab Supervisor</td>
<td>1</td>
</tr>
<tr>
<td>Assistant Director</td>
<td>1</td>
<td>Forensic Scientist</td>
<td>9 (2 vacant)</td>
</tr>
<tr>
<td>Toxicologist/QA Manager</td>
<td>1</td>
<td>Evidence Control</td>
<td>2 (1 vacant)</td>
</tr>
<tr>
<td>General Counsel</td>
<td>1</td>
<td>Breath Test Supervisor</td>
<td>1 (vacant)</td>
</tr>
<tr>
<td>Program Coordinator</td>
<td>1</td>
<td>Breath Test Inspector</td>
<td>4 (1 long term disability)</td>
</tr>
<tr>
<td>Administrative Assistant</td>
<td>1 (vacant)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Training**

The field of forensics, including toxicology, is constantly evolving. For this reason, the Department is committed to career-long learning for its employees and to providing training for others.

Training attended by ISDT staff during 2014 included The Robert F. Borkenstein Course on Alcohol and Highway Safety: Testing, Research and Litigation; The Robert F. Borkenstein Course on DUID: The Effects of Drugs on Human Performance and Behavior; ASCLD-Lab International Internal Auditor Training; Midwest Crime Laboratory Director’s Meeting; Mass Hunter Training; and Legal and Ethics Conference. Staff members who attend outside training share the knowledge gained with other agency staff.

ISDT staff provided the training required for certification of 74 new breath test operators using the facilities at the Indiana Law Enforcement Academy. As described on page 2, the Department also conducted 83 regional training sessions in which 4,370 breath test operators were recertified.

![Figure 3: Recertification training at Indiana University Northwest](image)

**Customer**

In 2014 the Department analyzed blood samples submitted by 368 agencies, including coroners, town marshals, municipal and county departments, and state law enforcement agencies. This was an increase of 47 agencies from the previous year and is approximately a 13% increase in new agencies using Department services. Most agencies submit samples for analysis in evidence collection kits provided by the Department. ISDT encourages agencies to return expired kits to the laboratory for refurbishment. Refurbished kits are redistributed to agencies at a savings to ISDT of approximately $3.25 per kit.

**Analysis**

ISDT completed 11,926 cases in 2014, which is a 24% increase from the 9,637 cases completed in 2013, and a 58% increase from the 7,541 cases completed in 2012 as seen in Table 2. This increase is attributable to new staff completing training and starting casework, an overtime grant from the Indiana Criminal Justice Institute, and outsourcing of confirmatory testing of selected positive-screened drug samples.

Table 2: Completed Analysis by Request Type

<table>
<thead>
<tr>
<th>Completed Requests</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol Analysis</td>
<td>223</td>
<td>218</td>
<td>552</td>
<td>370</td>
<td>541</td>
<td>431</td>
<td>503</td>
<td>476</td>
<td>708</td>
<td>929</td>
<td>681</td>
<td>555</td>
<td>6,187</td>
</tr>
<tr>
<td>Drug Analysis</td>
<td>174</td>
<td>264</td>
<td>557</td>
<td>367</td>
<td>485</td>
<td>787</td>
<td>235</td>
<td>499</td>
<td>559</td>
<td>643</td>
<td>581</td>
<td>588</td>
<td>5,739</td>
</tr>
<tr>
<td>Total</td>
<td>397</td>
<td>482</td>
<td>1,109</td>
<td>1,026</td>
<td>1,218</td>
<td>738</td>
<td>975</td>
<td>1,267</td>
<td>1,572</td>
<td>1,262</td>
<td>1,143</td>
<td>11,926</td>
<td></td>
</tr>
</tbody>
</table>

Although the Department preformed all requested analyses for alcohol in-house in 2014, there was a need to outsource 2,759 cases for confirmatory testing for drugs or about 48% of the
samples that screened positive for drugs. Some laboratory testing was outsourced to meet the demands of submitting agencies for timely results while the Department continues to train staff to perform the testing in-house. Staffing issues are being addressed and new analytical methods are scheduled to come online in 2015. ISDT anticipates that the need for outsourcing will decrease during fiscal year 2015 - 2016.

As shown in Table 3, ISDT received 7,292 cases in 2014. This is on average 607 cases submitted every month compared to an average of 550 cases submitted per month in 2013 and an average of 497 cases submitted per month in 2012. The number of case submissions in 2014 increased approximately 20% from the 2012 submissions. Cases may require analysis for alcohol, drugs, or both.

As shown in Chart 1, offenses reported with submission information indicated that 59% of the cases completed by ISDT involved Operating While Intoxicated, 22% Personal Injury Accident, 13% Property Damage Accident, 4% Fatal Accident, and Other submissions accounted for the remaining 2%.

Table 3: New cases submitted for analysis and the breakdown by requests

<table>
<thead>
<tr>
<th>New Cases Submitted</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol Analysis</td>
<td>449</td>
<td>387</td>
<td>581</td>
<td>636</td>
<td>614</td>
<td>622</td>
<td>698</td>
<td>679</td>
<td>698</td>
<td>733</td>
<td>493</td>
<td>702</td>
<td>7,292</td>
</tr>
<tr>
<td>Drug Analysis</td>
<td>383</td>
<td>164</td>
<td>420</td>
<td>564</td>
<td>251</td>
<td>702</td>
<td>566</td>
<td>535</td>
<td>552</td>
<td>588</td>
<td>403</td>
<td>463</td>
<td>5,591</td>
</tr>
<tr>
<td>Total Requests</td>
<td>785</td>
<td>346</td>
<td>892</td>
<td>120</td>
<td>537</td>
<td>144</td>
<td>105</td>
<td>104</td>
<td>108</td>
<td>118</td>
<td>778</td>
<td>915</td>
<td>11,277</td>
</tr>
</tbody>
</table>

As shown in Table 4, the final 2014 case backlog was 3,229. This is down approximately 18% from the 3,892 case backlog reported in December of 2013.

Table 4: Case Backlog Summary 2014

<table>
<thead>
<tr>
<th>Backlog</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol Analysis</td>
<td>1,640</td>
<td>1,586</td>
<td>1,453</td>
<td>1,646</td>
<td>1,356</td>
<td>1,626</td>
<td>1,685</td>
<td>1,739</td>
<td>1,581</td>
<td>1,238</td>
<td>961</td>
<td>868</td>
</tr>
<tr>
<td>Drug Analysis</td>
<td>2,640</td>
<td>2,558</td>
<td>2,475</td>
<td>2,753</td>
<td>2,554</td>
<td>2,506</td>
<td>2,761</td>
<td>2,777</td>
<td>2,749</td>
<td>2,704</td>
<td>2,499</td>
<td>2,361</td>
</tr>
<tr>
<td>Total</td>
<td>4,280</td>
<td>4,144</td>
<td>3,928</td>
<td>4,399</td>
<td>3,910</td>
<td>4,132</td>
<td>4,446</td>
<td>4,516</td>
<td>4,330</td>
<td>3,942</td>
<td>3,460</td>
<td>3,229</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Over 15 Days</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol Analysis</td>
<td>1,433</td>
<td>1,472</td>
<td>1,177</td>
<td>1,329</td>
<td>1,207</td>
<td>1,281</td>
<td>1,407</td>
<td>1,486</td>
<td>1,341</td>
<td>915</td>
<td>714</td>
<td>680</td>
</tr>
<tr>
<td>Drug Analysis</td>
<td>2,413</td>
<td>2,436</td>
<td>2,162</td>
<td>2,415</td>
<td>2,372</td>
<td>2,137</td>
<td>2,516</td>
<td>2,545</td>
<td>2,519</td>
<td>2,373</td>
<td>2,246</td>
<td>2,165</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Over 30 Days</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol Analysis</td>
<td>1,260</td>
<td>1,396</td>
<td>1,043</td>
<td>1,107</td>
<td>1,125</td>
<td>959</td>
<td>1,168</td>
<td>1,266</td>
<td>1,048</td>
<td>695</td>
<td>574</td>
<td>461</td>
</tr>
<tr>
<td>Drug Analysis</td>
<td>2,238</td>
<td>2,349</td>
<td>2,014</td>
<td>2,137</td>
<td>2,296</td>
<td>1,790</td>
<td>2,315</td>
<td>2,334</td>
<td>2,233</td>
<td>2,146</td>
<td>2,137</td>
<td>1,956</td>
</tr>
<tr>
<td>Total</td>
<td>3,498</td>
<td>3,745</td>
<td>3,057</td>
<td>3,244</td>
<td>3,421</td>
<td>2,749</td>
<td>3,483</td>
<td>3,600</td>
<td>3,281</td>
<td>2,841</td>
<td>2,711</td>
<td>2,417</td>
</tr>
</tbody>
</table>
Breath Test Program

ISDT has 206 Intox EC/IR II breath test instruments strategically located throughout Indiana as shown in Figure 4. Indiana Administrative Code Title 260 requires evidentiary breath test instruments to be inspected and certified at least every 180 days. All of the required breath test instrument inspections and certifications remained current during 2014. Additionally, all BAC DataMaster breath test instruments were replaced with the new Intox EC/IR II breath test instruments in 2014. See Figure 5 for a photograph of the new Intox EC/IR II breath test instrument.

There are currently 4,443 certified state, county, and local law enforcement agency breath test operators. Breath test operators are required to be recertified at least every two years from the month of certification or recertification.

Figure 4: Location of ISDT Certified Breath Test Instruments

Figure 5: Intox EC/IR II
INDIANA STATE DEPARTMENT OF TOXICOLOGY

- Director
  - Toxicologist/Quality Manager
  - Assistant Director
  - General Counsel
    - Administrative Assistant
    - Program Coordinator
      - Analytical Lab Supervisor
        - Forensic Scientist
        - Forensic Scientist
        - Forensic Scientist
        - Forensic Scientist
      - Forensic Scientist
      - Forensic Scientist
      - Forensic Scientist
      - Forensic Scientist
      - Forensic Scientist
      - Forensic Evidence Specialist
      - Forensic Evidence Specialist
      - Breath Test Inspector
      - Breath Test Inspector
      - Breath Test Inspector
Contact Information:

Indiana State Department of Toxicology
550 W. 16th Street, Suite A
Indianapolis, IN 46202-2203

Web: www.IN.gov/isdt

General agency number: (317) 921-5000

Fax: (317) 278-2836

Director
Ed Littlejohn
(317) 921-5006
elittlejohn@isdt.IN.gov

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Steve Mayer
(317) 921-5004
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Toxicologist/Quality Manager
Dr. Sheila Arnold
(317) 921-5003
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Analytical Lab Supervisor
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General Counsel
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Program Coordinator
Haley Brown
Breath Test/IRresults
(317) 921-5007
halbrown@isdt.IN.gov