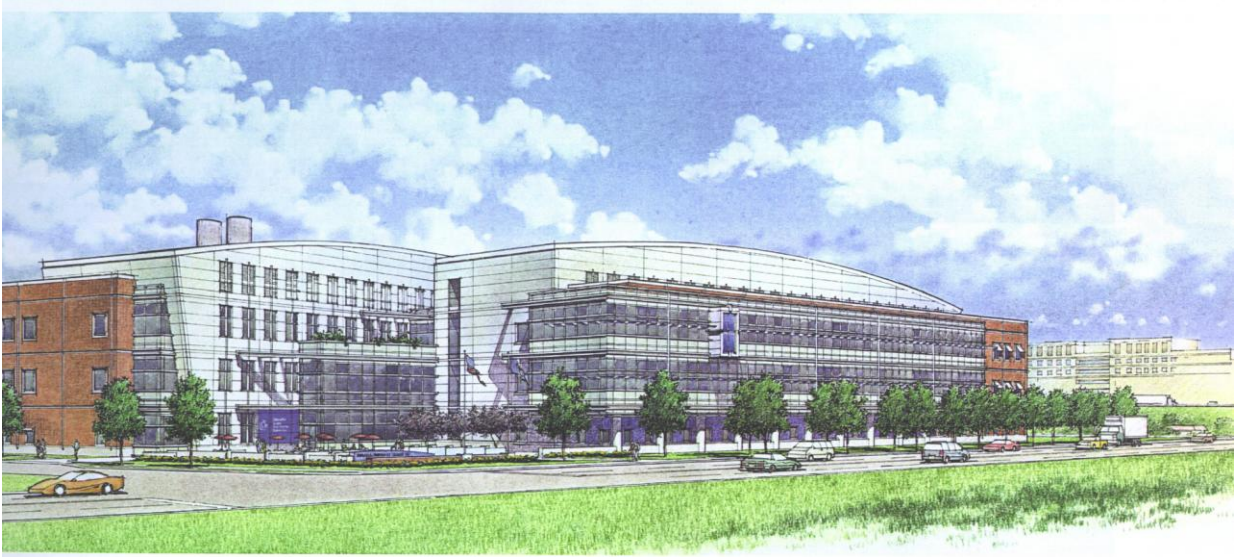


Indiana State Department of Toxicology 2012 Annual Report



Pictured on the cover is the State of Indiana Forensic and Health Sciences Laboratories facility housing the Indiana State Department of Toxicology.

Overview

The Department of Toxicology was established within the Indiana University School of Medicine in 1957. In July 2011, at the direction of the Indiana General Assembly, the department began the process to become a state agency and in January 2012, the transition of the department from Indiana University to state government was completed.

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, by conducting analyses for alcohol and drugs in blood and urine samples submitted by law enforcement agencies, furnishing expert testimony, training and certifying operators to administer breath tests for alcohol, and inspecting, maintaining, and certifying breath testing equipment.

The department’s mission is to promote the administration of justice by providing cutting edge science, research, and education in forensic toxicology to the State of Indiana.

Our purpose is to provide accurate and timely toxicology analytical services in an ethical and forensically sound manner and 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 ISDT; and to provide the necessary technical and administrative leadership.

Budget

The state appropriations for the Department of Toxicology from 2009 through 2013 are listed in Table 1 below. ISDT also assesses limited fees to support the breath test program. These fees were established by Indiana University when the department was part of the School of Medicine. Additionally, the department was awarded a \$9,761.00 grant from the Indiana Criminal Justice Institute for small equipment.

Table1: State appropriations for the Department of Toxicology

2009	2010	2011	2012	2013
\$3,719,280.00	\$2,463,380.00	\$2,463,380.00	\$2,093,873.00	\$2,093,873.00

Staffing

The Department of Toxicology at one point in 2012 was down to a staff of 10. The department ended the year with 18 of its 21 positions filled. Several of these 18 positions were filled late in

the year as noted in Table 2. Before becoming a state department in 2011, the staffing level was set at 26 positions. The current reduction in staffing is due, in part, to staff assuming extra responsibilities and establishing MOU's 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 department's organizational structure and contact information.

Table 2: Department of Toxicology Staffing

Position	Status as of December 31, 2012
Director	1 (filled April)
Assistant Director	1 (filled November)
Chief Toxicologist	1 (filled prior to January 2012)
General Counsel	1 (filled prior to January 2012)
Administrative Assistant	1 (vacant)
Analytical Lab Supervisor	1 (vacant)
Forensic Scientist	9 (1 filled November and 2 December)
Evidence Control	1 (filled November)
Breath Test Supervisor	1 (vacant)
Breath Test Inspector	4 (2 filled Dec. and 1 long term disability)

Training

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

Outside training completed during 2012 included Agilent Headspace Techniques, Operations, and Maintenance for two forensic scientists; The Robert F. Borkestein Course On Alcohol And Highway Safety: Testing, Research and Litigation and The Robert F. Borkestein Course on DUID: The Effects of Drugs on Human Performance and Behavior for one forensic scientist; and Legal and Ethics Conference training for the General Counsel. Knowledge gained through outside training is shared within the agency with those not attending. The department has also taken advantage of free web-based training in basic toxicology methods sponsored by the National Institute of Justice. In-house training was completed for the evidence control specialist and was started for the three new forensic scientists and two new breath test inspectors hired in November and December.

Customer

ISDT analyzed blood samples for 299 agencies including town marshals, municipal and county departments, and state law enforcement agencies in 2012. Additionally, work was performed for some county coroners and county prosecutors. The breath test program certified over 350 officers from approximately 130 different municipal, county, and state law enforcement agencies, recertified over 2,100 officers, and maintained instruments in over 200 law enforcement locations throughout the state.

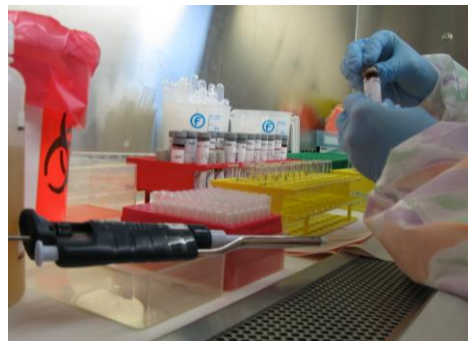


Figure 1: Blood sample preparation

Analysis

The number of pending analytical cases shown in Table 3 rose dramatically in 2012. The majority of this rise is associated with failure of aging instrumentation and the drop in analytical staff to six scientists, leaving three vacancies. As noted in Table 4 for the year, ISDT completed 3,538 alcohol and 4,003 drug requests, or 7,541 total requests. As noted in Table 5, ISDT received a total of 5,960 cases for the year, or just slightly less than 500 cases per month. These 5,960 cases equated to 4,428 alcohol and 5,316 drug requests, or 9,744 analytical requests. Listed in Table 6 are the drugs and/or compounds identified by ISDT during 2012, with cannabinoids and associated metabolites constituting 1,566 identifications and the second most common being in the benzodiazepines area at 999.

Table 3: Analytical Case Summary 2012

Backlog	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Alcohol Analysis	5	6	6	8	9	10	10	13	48	324	724	1011
Drug Analysis	1	1	1	2	2	100	285	537	862	1262	1725	2061
Total	6	7	7	10	11	110	295	550	910	1586	2449	3072
Over 15 Days	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Alcohol Analysis	3	5	6	7	8	10	10	10	29	51	450	856
Drug Analysis	1	1	1	2	2	32	183	371	659	914	1445	1895
Total	4	6	7	9	10	42	193	381	688	965	1895	2751
Over 30 Days	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Alcohol Analysis	3	5	6	6	8	9	10	10	13	48	288	691
Drug Analysis	1	1	1	1	2	2	100	285	537	862	1218	1688
Total	4	6	7	7	10	11	110	295	550	910	1506	2379

Table 4: Completed analysis by request type

Completed Requests	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Alcohol Analysis	106	374	407	260	492	461	382	194	295	266	61	240	3538
Drug Analysis	344	511	751	382	381	233	179	445	282	176	183	136	4003
Total	450	885	1158	642	873	694	561	639	577	442	244	376	7541

Table 5: New cases submitted for analysis and the breakdown of these cases by requests

New Cases Submitted	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	452	400	411	549	552	532	555	595	516	528	411	459	5960
New Requests	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Alcohol Analysis	367	304	316	327	420	430	329	388	414	360	447	326	4428
Drug Analysis	432	359	408	436	528	488	376	477	489	411	526	386	5316
Total Requests	799	663	724	763	948	918	705	865	903	771	973	712	9744

Table 6: Drugs and/or compounds identified by ISDT during 2012

Amphetamines	Amphetamine	191	Carisoprodol	Carisoprodol	81
	MDMA(Ecstasy)	1		Meprobamate	105
	Methamphetamine	100	Cocaine	Benzoylcegonine	182
	Pseudoephedrine	43		Cocaine	182
Barbiturates	Butalbital	34	Fentanyl	Fentanyl	10
	Phenobarbital	12		Norfentanyl	2
	Secobarbital	1			
Benzodiazepines	7-Aminoclonazepam	138	Methadone	Methadone	116
	a-Hydroxyalprazolam	8		Opioids	6-MAM
	Alprazolam	419	Codeine		8
	Clonazepam	108	Hydrocodone		249
	Desalkylflurazepam	1	Hydromorphone		7
	Diazepam	117	Morphine		109
	Lorazepam	28	Oxycodone		109
	Midazolam	14	Oxymorphone		12
	Nordiazepam	137			
	Oxazepam	10	Zolpidem	Zolpidem	81
Temazepam	19				
Cannabinoids	THC	783			
	THCA	783			



Figure 2: Auto sampler utilized in drug analysis

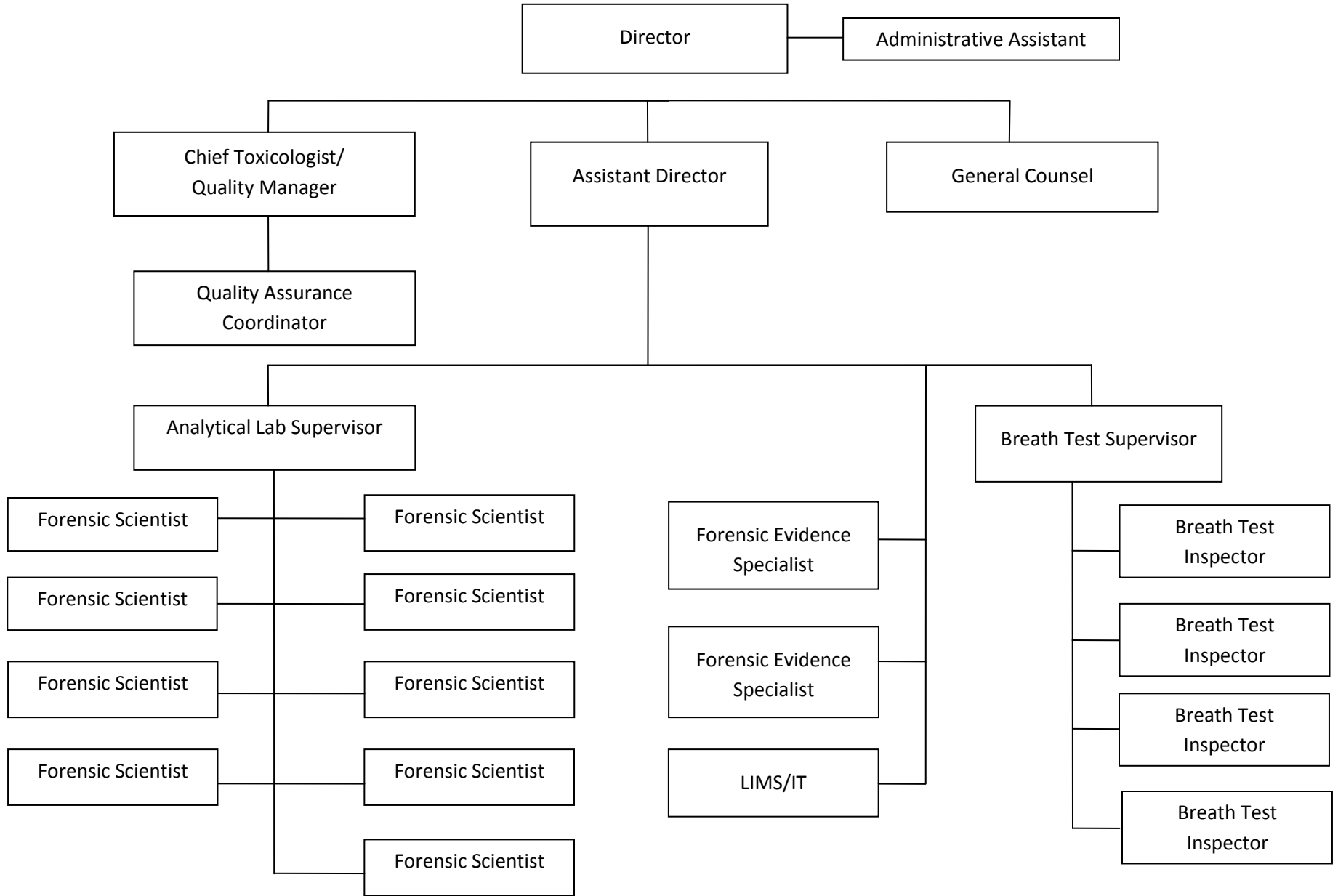
Breath Test Program

The Indiana Department of Toxicology has 211 instruments strategically located throughout Indiana as noted in Figure 3. The three colors indicate support areas for the breath test inspectors at the beginning of 2012. By the end of 2012, one inspector was maintaining all of the instruments in the state. This status continued until 2013 when personnel hired at the end of the 2012 to fill vacancies were fully trained. Using these instruments, local officers conducted approximately 25,000 breath tests. There are 5,163 state, county, and local officers who are certified breath test operators in Indiana. Of these, 2,178 were recertified on the operation of the BAC DataMaster (shown in Figure 4) in 2012. Indiana Administrative Code 260 requires that a certified breath test operator be recertified every two years. Ten certification classes were held in 2012 to train new operators. These classes certified about 350 new officers. The average wait to attend a certification class was 120 days.

No instruments were replaced in 2012, although 261 repairs were conducted. Even though ISDT lacked a full complement of trained breath test inspectors for most of 2012, all of the 211 certified breath test instrument inspections remained current. Indiana rule requires that each instrument must be inspected every 180 days.



INDIANA STATE DEPARTMENT OF TOXICOLOGY



Contact Information:

Indiana State Department of Toxicology

550 W. 16th Street, Suite A
Indianapolis, IN 46202-2203

Web: www.IN.gov/isdt

General phone: (317) 921-5000

Fax: (317) 278-2836

Director

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

Assistant Director

Steve Mayer
(317) 921-5004
smayer@isdt.IN.gov

Analytical Supervisor

Dr. Sheila A. Arnold
317) 921-5003
sarnold1@isdt.IN.gov

Breath Test Supervisor

Eric Southworth
(317) 921-5007
esouthworth@isdt.IN.gov

Chief Toxicologist

Dr. Kriger
(317) 921-5005
skriger@isdt.IN.gov

General Counsel

Teri Kendrick
(317) 921-5002
tkendrick@isdt.IN.gov