

# Accreditation of Forensic Science Service Providers

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# Accreditation of Forensic Science Service Providers

- One of the 13 recommendations from the National Academy of Sciences (NAS) report called for universal accreditation of forensic science laboratories.
- As of January 2011, nine states passed legislation mandating accreditation and other forms of oversight of the forensic science service providers. The legislation and oversight requirements vary greatly from state to state.

# Accreditation of Forensic Science Service Providers

## What is laboratory accreditation?

- Laboratory accreditation is the recognition of technical competence through an independent third-party assessment of a laboratory's quality, administrative and technical systems.
- Accreditation also provides the general public and customers of laboratory services with a means of identifying laboratories that demonstrate compliance with established standards.

# Accreditation of Forensic Science Service Providers

## What is laboratory accreditation?

- Uses specific criteria and procedures based upon accepted standards to ensure that a laboratory is competent to generate and interpret results that are accurate, reliable and use industry best practices.
- Includes staff competence, training and continuing education; test method validity and appropriateness; traceability of measurements and calibrations to national standards; suitability, calibration and maintenance of test equipment; testing environment; documentation, sampling and handling of test items; and quality assurance of data including reporting results and proficiency tests.

# Accreditation of Forensic Science Service Providers

- What is a forensic laboratory?
- Who is or isn't accredited?
- Who should be accredited?
- What accreditation programs exist for forensic science?
- Are existing accreditation standards suitable?
- Are they standardized?
- Who accredits the providers?

# Accreditation of Forensic Science Service Providers

## Universal adoption and compliance

- What economic and organizational framework exists for accreditation?
- Can the current structure support new developments and requirements, and potential universal compliance to strengthen the forensic sciences?

**Personnel**

**Funding**

**Facilities**

# Accreditation of Forensic Science Service Providers

- Forensic science service providers face unique accreditation challenges due to the diversity of the community.
  - public laboratories and forensic units, medical examiner and coroner offices, private laboratories, individual practitioners and academicians/consultants.
- The wide variety of forensic science testing creates additional challenges for the providers and the accrediting bodies.

# Accreditation of Forensic Science Service Providers

- Significant progress has been made in the accreditation of federal state and local forensic laboratories, but voluntary accreditation has not resulted in universal accreditation.
- It is estimated there are 7,000 to 10,000 forensic units employing 35,000 to 50,000 individuals, predominately in law enforcement agencies, providing limited forensic science services.

# Accreditation of Forensic Science Service Providers

- Progress continues to be made in the accreditation of medical examiner/coroner offices and forensic toxicology labs.
- Approximately 2342 ME/C offices served 3343 counties in the United States in 2004. As of January 2011, there were 45 ME/C offices accredited by NAME, 9 ME/C offices accredited by IACME. There are approximately 200 toxicology laboratories of which 23 are accredited by ABFT.

# Accreditation of Forensic Science Service Providers

One of the biggest hurdles facing the forensic community is identifying providers of forensic science services outside of the groups named above.

In order to improve and strengthen forensic science, all entities performing forensic testing, even on a part time basis, would need to be included in universal compliance with accreditation requirements.

# Accreditation of Forensic Science Service Providers

## Definition of Forensic Science Service Provider (FSSP)

A forensic science service provider is defined as having at least one full-time analyst (however named) who examines physical evidence<sup>1</sup> in criminal and/or investigative matters and provides reports or opinion testimony with respect to such evidence in United States courts of law.

Forensic science service provider is used interchangeably with forensic laboratory.

<sup>1</sup> Physical evidence is a term used in the definition of a crime/forensic laboratory in the American Society of Crime Laboratories Directors/Laboratory Accreditation Board - *International*, Supplemental Requirements for the Accreditation of Forensic Science Testing Laboratories, Appendix A – Glossary, 2011 and the Bureau of Justice Statistics Bulletin, *Census of Publicly Funded Forensic Crime Laboratories, 2005*, July 2008NCJ 222181, U.S. Department of Justice, Office of Justice Programs, p. 9.

# Accreditation of Forensic Science Service Providers

All FSSPs should become accredited to the appropriate ISO/IEC standard (17025, 17020, 15189) with supplemental standards specific to forensic science.

- Includes all federal, state and local government agency providers, forensic units, private and part-time practitioners.
- Includes large traditional labs, one person and digital evidence units.
- Includes all ME/Coroner offices and toxicology laboratories
- Does not include crime scene processing
- Does not include consultants (provide opinion on review of data, no testing)
- May not include specialty examinations conducted outside of forensic science disciplines recognized by accrediting bodies. These services should be conducted under the oversight of an accredited provider.

# Accreditation of Forensic Science Service Providers

## Considerations

Implementation – How do we do this?

Timeframe – What is reasonable?

Costs/Budget – How do we pay for it?

Stakeholder education – How do we identify and reach out?

Current state laws – Any conflicts?

Workload shift - small units may close and shift work to larger labs

Exclusion of forensic testing conducted prior to an FSSP being accredited

Specialty examinations – How do we included them?

# Accreditation of Forensic Science Service Providers

## Considerations

In 2011 it was estimated there are 35 large, 38 medium and 13 small federal forensic science service providers that would need to achieve accreditation.

ME/Coroner/Toxicology – existing accrediting bodies are widely accepted in the community and they could become compliant with ISO/IEC 17011.

Factors outside the control of the laboratory, such as the availability of accrediting bodies, may affect the ability of the laboratory to achieve accreditation.

Compliance with government policies and regulations (e.g., purchasing, contracting, hiring, budget cycles, etc.) may affect an agency's ability to achieve accreditation.

May require adoption of legislation include funding, enforcement mechanisms, admissibility requirements and consequences for non-compliance.

# Accreditation of Forensic Science Service Providers

## Other data

- A list of federal forensic service providers and accreditation status as of Jan 2011.
- A list of accredited non-federal forensic science service providers as of Jan 2011.
- A list of accredited Toxicology, ME and Coroner offices as of Jan 2011.
- Cost estimates for accreditation and related activities based upon information from accrediting bodies.
- A compilation of the legislation and oversight requirements by state.
- A compilation/comparison of the standards for the three accrediting bodies currently providing accreditation services under ISO/IEC 17025 to FSSPs.

# Accreditation of Forensic Science Service Providers

## Estimated Costs to Achieve and Maintain Accreditation (est. on 2009 costs)

	Small FSSP	Medium FSSP	Large FSSP
<b>Accrediting Body Cost</b> Application Fee, pre-consultation, initial inspection, yearly fee, yearly surveillance visit	\$1500/analyst/year	\$1000/analyst/year	\$500/analyst/year*
<b>Proficiency Testing</b>	\$1000/analyst/year	\$1000/analyst/year	\$1000/analyst/year
<b>Continuing ED/Training</b>	\$2000/analyst/year	\$2000/analyst/year	\$2000/analyst/year
<b>QA Staffing</b>	\$150,000/year	\$150,000/year	\$300,000/year
<b>Equipment Calibration - Initial</b>	\$15,000	\$20,000	\$25,000
<b>Equipment Calibration - Yearly maintenance</b>	\$5,000	\$10,000	\$15,000
<b>Variables</b>			
analysts	≤5	6-15	>15
disciplines	1-2	3-6	7+
sites	1-2	1	1+

Additional costs to renovate facilities and to specific requirements may be required. Costs to renovate laboratory space can begin at \$400/sq foot. Minimum lab space requirements can be 1000 sq feet/analyst .

# Accreditation of Forensic Science Service Providers

Estimated costs <sup>1</sup>(FY 2011) for Medical Examiner/Coroners offices to achieve & maintain accreditation

	<b>NAME</b>	<b>IACME</b>	<b>ABFT</b>
<b>Accrediting Body Cost<sup>2</sup></b> Application fee, pre-consultation, initial inspection	\$2500/office/system	\$2500/office	\$4000/laboratory
<b>Annual Maintenance Fee</b>	\$1000/office/system	\$1000/office/system	\$3500/laboratory
<b>Proficiency Testing</b>	n/a	n/a	\$1000/practitioner/year
<b>Continuing Education/Training</b>	\$1000/practitioner/year	\$1000/practitioner/year	\$2000/practitioner/year
<b>QA Staffing</b>	\$120,000/year	\$120,000/year	\$120,000/year <sup>3</sup>
<b>Equipment Calibration – Initial</b>	\$5000	\$5000	\$20,000
<b>Equipment Calibration – Yearly maintenance</b>	\$5000	\$5000	\$10,000

<sup>1</sup>Funding requirements are dependent upon variables such as number of analysts, number and type of forensic services, number of sites, organizational structure and agency specific requirements, along with other factors. These are not ISO based systems. It is anticipated that these costs will rise in the future and could become comparable to the costs listed in Table 1.

<sup>2</sup>Cost varies according to size of office.

<sup>3</sup>Represents a laboratory with 6-15 practitioners at one site.

# Interagency Working Group - Accreditation & Certification

Membership: 30 Members (22 Federal, 8 State and Local)

Co-Chairs: Chris Taylor, USACIL and Patricia Manzolillo, USPIS

Secretary: Danielle Merritt USSS, Eric Jensen, FBI

Federal:	ATF	CBP	DEA
	EPA	FBI	Fish & Wildlife Service
	ICE	NIJ	NIST
	NOAA	TIGTA	USACIL
	USPS	USSS	

State & Local:	Caddo LA Sheriff's Department
	Clark County NV Coroner/ME
	Jackson County MO Prosecutor's Office
	Los Angeles County Sheriff
	MD State OCME
	MD State Police
	Palm Beach County FL Office of Sheriff
	TX Forensic Science Commission/Sam Houston University

# Interagency Working Group - Accreditation & Certification

## Resources

American Society of Crime Laboratory Directors –  
Laboratory Accreditation Board

Forensic Quality Services (ANSI-ASQ)

American Association for Laboratory Accreditation (A2LA)  
A2LA (ILAC process)

American National Standards Institute

Georgia Bureau of Investigation Laboratory

Western Maryland Crime Lab

Anne Arundel County Police Department

Federal Bureau of Investigation - CJIS 10 print Unit

Federal Bureau of Investigation - Chemistry Unit

# Interagency Working Group - Accreditation & Certification

## Resources

Bureau of Justice Statistics (Census)  
Statistical Counseling (ISO17043)

Uniform Law Commission  
National Council of State Legislators

American Judges Association

Senator Leahy & Judiciary Committee