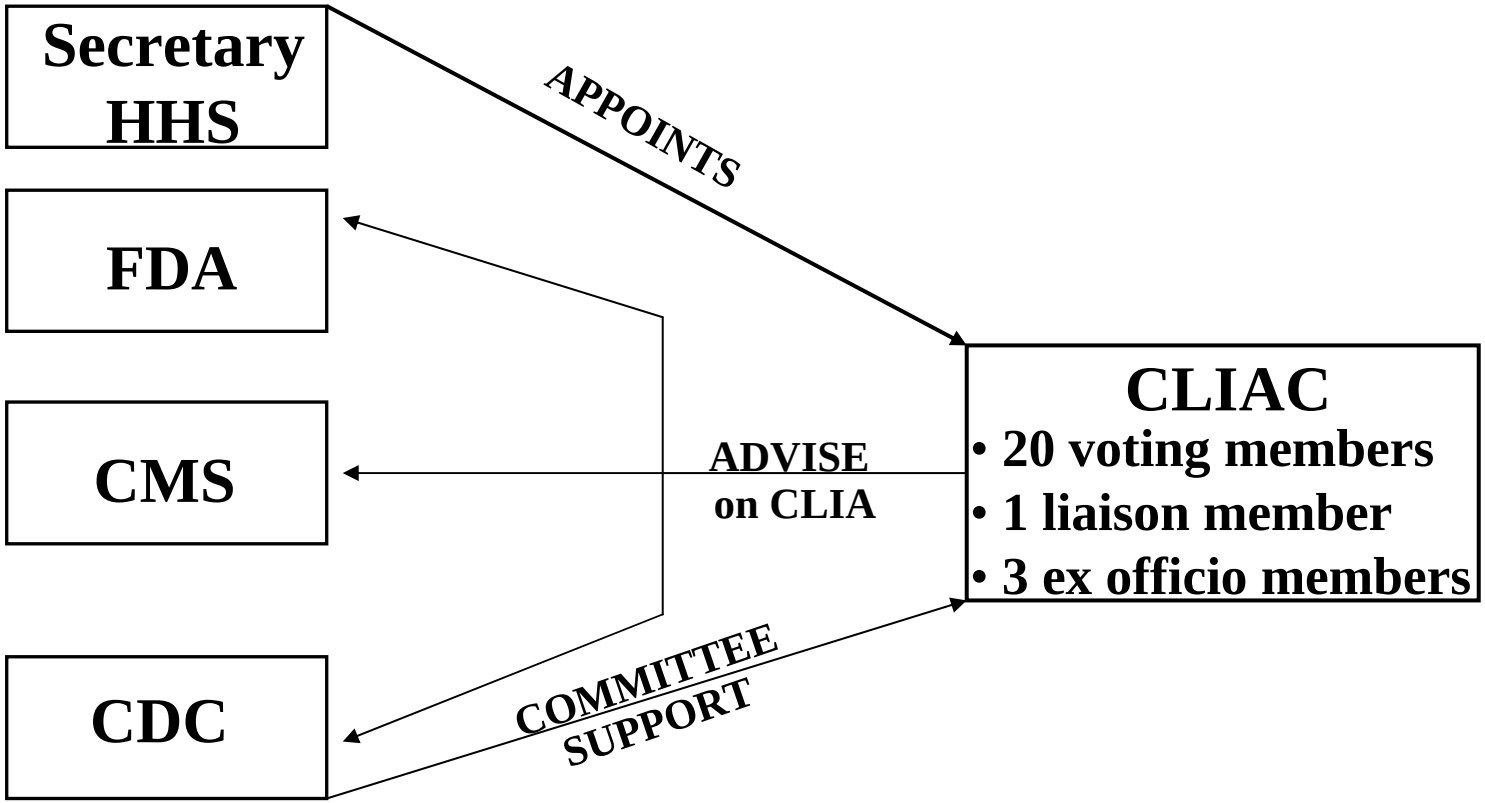
Development of a Genetic Testing Specialty under CLIA

Joe Boone, Ph.D.
Division of Laboratory Systems
Public Health Practice Program Office
Centers for Disease Control and Prevention
October22, 2003

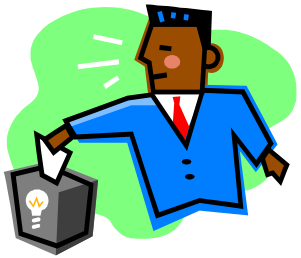
CLIA Oversight

- **Centers for Medicare & Medicaid Services (CMS)**
  - **Publish regulations**
  - **Administer CLIA program**
- **Centers for Disease Control and Prevention (CDC)**
  - **Conduct assessment studies**
  - **Convene CLIAC meetings**
  - **Provide scientific and technical support/consultation**
- **Food and Drug Administration (FDA)**
  - **Complexity categorization**
  - **Waiver determinations**

Clinical Laboratory Improvement Advisory Committee (CLIAC)

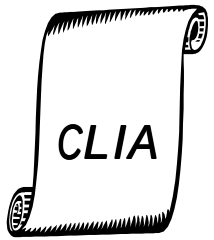


CLIA Standards Development



INPUT

PROCESS
(RULEMAKING)



OUTPUT

Federal Law

Voluntary Standards/Guidelines

State Requirements

Accreditation Standards

Industry

Public

CLIAC

Proposed Regulatory Standards

Notice of Intent (NOI)

- Recommendations
- Solicitation of comments

Notice of Proposed Rule Making (NPRM)

- Proposed regulations
- Solicitation of comments
- Collection of information
- Impact Analysis

Final CLIA Rule

- Regulations
- Comments & Responses
- Impact Analysis

CLIA Regulations

- Minimum Standards
- Cost Effective
- Maintain Access

Current CLIA Requirements Apply to Genetic Testing Laboratories

- General requirements for non-waived testing
- Specialty of clinical cytogenetics
  - Specific QC requirements
  - Qualification requirements for technical supervisor
- *493.1101* - facilities needed for molecular amplification procedures and *493.1231* - confidentiality of patient information
- No specific requirements for an emerging genetics field in molecular genetics, biochemical genetics, pharmacogenetics

Historical Framework

- 1997 – NIH/DOE task force report
- 1997 – CLIAC : CLIA application to genetic testing
- 1998 – CLIAC: Proposed changes to CLIA
- 1999 – SACGT: Supports CLIAC's recommendations
- 2000 – Notice of Intent (NOI)
- 2001 – CLIAC reviews NOI comments
- 2003 – Quality Systems Rule – FR/Vol 68, No. 16, Friday, January 24, 2003 modifies CLIA

Notice of Intent - Issues

- Definition and categories
- Clinical validity
- Authorized person
- Informed consent
- Confidentiality
- Genetic counseling
- Pre-analytic, analytic, and post-analytic issues
  - **Test requisition, retention and use of tested specimens**
  - **Quality control, test validation, and proficiency testing**
  - **Test report and record retention**
  - **Personnel qualifications and responsibilities**

Examples of NOI Comments

Definition of Genetic Testing

- Most comments supported creation of a specialty
- ~ 50% felt definitions too broad
- Major issues:
  - Germ-line mutation vs acquired or somatic mutation
  - Determination of a test as “genetic”
  - Intended use
  - Subspecialties
  - Newborn screening
  - Maternal serum screening
  - HLA testing
  - Pharmacogenetic testing

Note – based on 57 letters with 800 comments

Examples of NOI Comments (cont.)

Clinical Validity

- ~50% commenters disagreed with NOI proposal
- ~50% requested clarification of clinical validity
- Differing positions
  - Impractical and out of laboratory's purview
  - Should be laboratory's responsibility to review existing data
  - Should not be required for all laboratory tests
  - Should be required only for certain types of tests
  - Should be an ongoing process following introduction into clinical practice
- Concerns about monitoring, criteria, data sources, number of samples to be tested

Examples of NOI Comments (cont.)

Informed Consent

- ~60% felt laboratories should not be required to ensure documentation of informed consent
- Most believed health care providers should be responsible
- Some suggested CLIA was an appropriate mechanism to regulate informed consent
- Most felt oversight should be deferred to states
- Laboratories should be required to establish policies and procedures
- Controversy on extent of laboratory responsibility

Development of CLIA Proposed Rule for Genetics

- **Major issues under consideration**
  - **Definitions of genetic testing and subspecialties**
  - **Informed consent**
  - **Test validation**
  - **Proficiency testing**
  - **Specific subspecialty requirements**
  - **Retention and use of tested specimens**
  - **Personnel qualifications**

Principles in Developing Proposed Rule

- Ensure quality of all phases of genetic testing
- Provide flexibility to accommodate different testing environments and processes
- Ensure appropriate qualifications for laboratory personnel
- Assure availability of and access to quality genetic testing

NPRM Content

- **Preamble**
  - **Explanation/clarification of proposed requirements**
  - **NOI comments and responses**
  - **Sources of information**
  - **Regulatory impact analysis**
- **Proposed requirements**
  - **Regulatory language**

Regulatory Impact analysis (RIA)

- Assess potential impact of proposed requirements
  - Affected entities
    - Laboratories performing genetic testing
    - Accreditation and State programs
    - Industry
    - Others
  - Test volume information
  - Current laboratory practices
  - Genetic testing personnel
- Cost-benefit analysis
  - Quantify potential costs and benefits
  - Project costs and benefits over five years

Status of NPRM

- ✓ Revised CLIAC recommendations
- ✓ Voluntary Standards/Guidelines
- ✓ State Requirements
- ✓ Accreditation Standards
- ✓ Industry
- ✓ Public

NOI

- CLIAC recommendations
- Solicitation of Comments

- ❖ Proposed Regulatory Requirements
- ❖ Information Collection
- ❖ Regulatory Impact Analysis
- ❖ Clearance

NPRM

- Proposed regulations
- Solicitation of Comments
- Collection of information
- Impact Analysis

Final Rule

- Regulatory Requirements
- Comments & Responses
- Collection of information
- Impact Analysis

Regulation Clearance

Process Involves:

- **CMS**
- **CDC**
- **FDA**
- **HHS (Health and Human Services)**
  - **Office of the Secretary**
  - **Assistant Secretary for Planning and Evaluation**
  - **Others**
- **OMB (Office of Management and Budget)**
- **Congress**
- **OFR (Office of Federal Regulations)**

Areas of CLIA Regulations Needing Revisions

- Cytology PT
- Genetics
- Personnel
- PT
- Waiver

List is alphabetical, not necessarily arranged in priority order.

Questions???