CLARITAS GENOMICS

Lessons Learned at Claritas from Simultaneous Accreditation to CLIA and ISO 15189: Combining the World's Most Accepted QMS with CLIA

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Overview

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  - Background
  - Application process
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  - Assessor qualifications
  - On-site Expectations
  - Reporting and Corrective actions
  - Accreditation Recognitions
- Claritas
  - Background
  - Preparations
  - Pre-assessment
  - Claritas assessor interaction
  - On-site perspectives
  - Reporting and corrective actions
  - Accreditation Value

A2LA Background

- Non-profit, non-governmental, membership organization
- Provide accreditation and training
- Established in 1978
- International Laboratory Accreditation Cooperation (ILAC) Recognized
- Deemed Status achieved in 2014
- Only AO in **world** holding both ILAC and CMS Recognitions!

Claritas Genomics Background

Claritas combines the world's best pediatric specialists with innovative patient-centric diagnostics to advance precision care.

- Commercial molecular diagnostics laboratory
- Spun out of Boston Children's Hospital in 2013
- Large Test Menu including, the Claritas Clinical Exome, several region of interest exome tests, single gene assays, deletion/duplication assays, Chromosomal Microarray, and PCR/Gel bases assays.
- Hold CLIA and ISO:15189 accreditations and licenses with MA, CA, FL, MD, NY*, PA, and RI.

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Why ISO?

- A robust QMS is essential to a molecular sequencing lab
- Perfect time to implement processes that were based in QMS concepts reflected in ISO 15189
- Prepares company for additional accreditations and licensure
- Future of regulatory landscape
- Support from Executive Level of Organization

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Why A2LA?

- A2LA reaches an organizational depth that other AO's do not reach
- Results in a deeper corporate quality audit
- A2LA's CMS deemed status makes process more efficient
- High level of engagement and support from A2LA
- International recognition of the ISO:15189 accreditation

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A2LA Application

- Complete application including:
  - Completed application form
  - Organization chart and Technical Matrix
  - Credentials of key staff members
  - PT Plan, PT data, Corrective actions for any PT Outliers
  - Quality Manual and supporting SOPs
  - Completed assessor checklist
  - Equipment list, floor plan
  - Scope Selection List

A2LA Application Process

- Upload to CAB Portal
- A2LA Accreditation Officer Reviews Submittal
- Accreditation Officer Proposes Assessor/Assessment Team
- Schedule assessment dates

Assessor Planning

- Prior Document Review
- Prepare notes and questions
- Send notification to lab informing them of gaps or questions/clarifications
- Provide agenda

Application Process

November 2013

- Began Discussions considering ISO 15189 and A2LA

December 2013

- First gap analyst performed of QMS

May 2014

- Obtained Application for ISO 15189 Accreditation

July 29, 2014 Application Submitted

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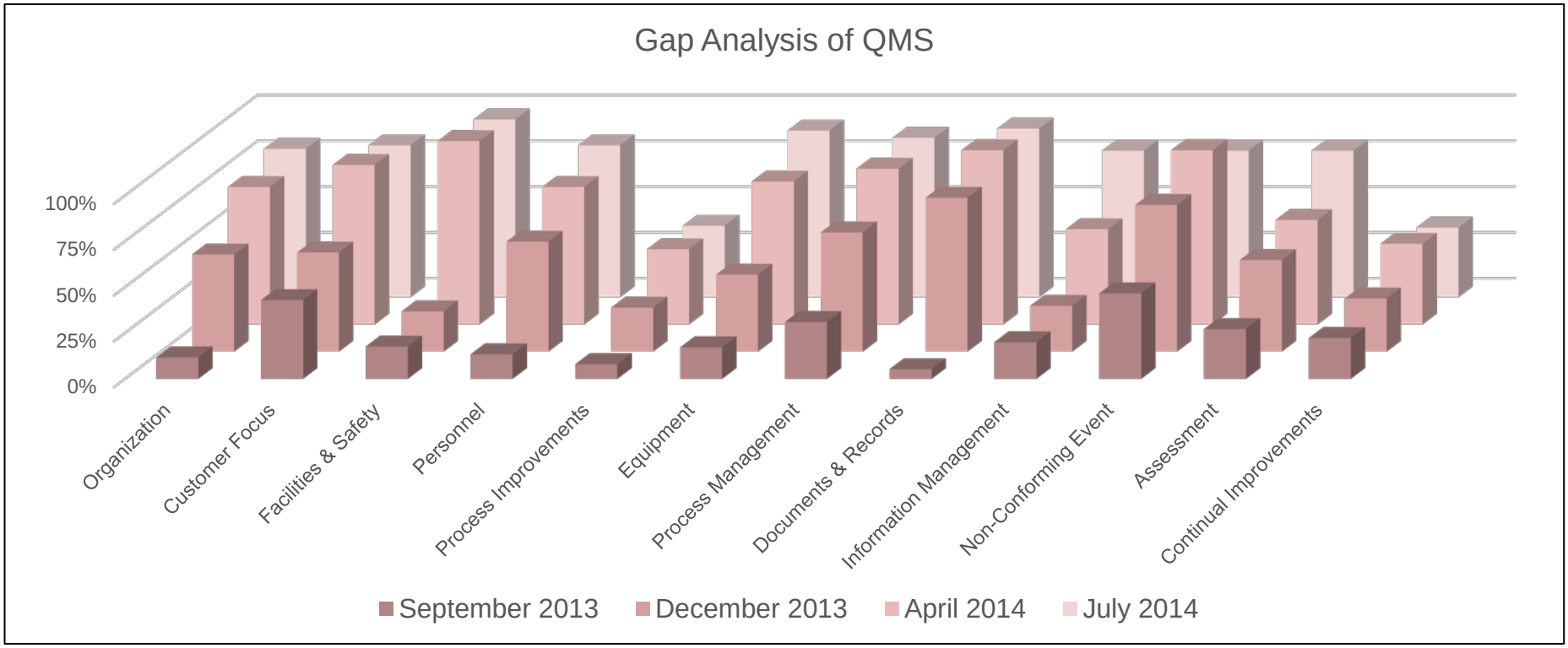
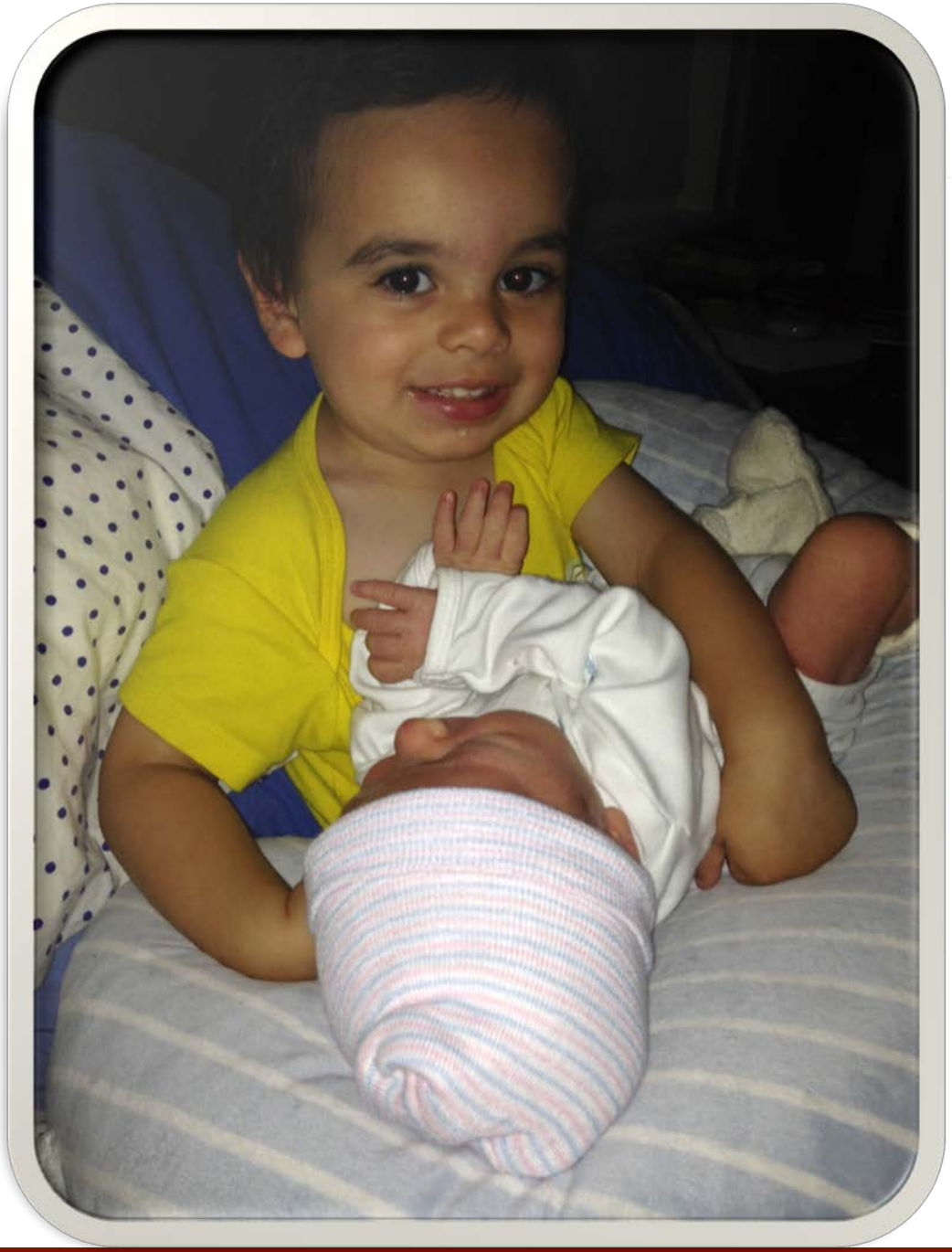
Document Review Preparation

- Significant amount of process planning and policy writing
- Optimization of document control process
- Continual internal auditing, gap analysis of QMS



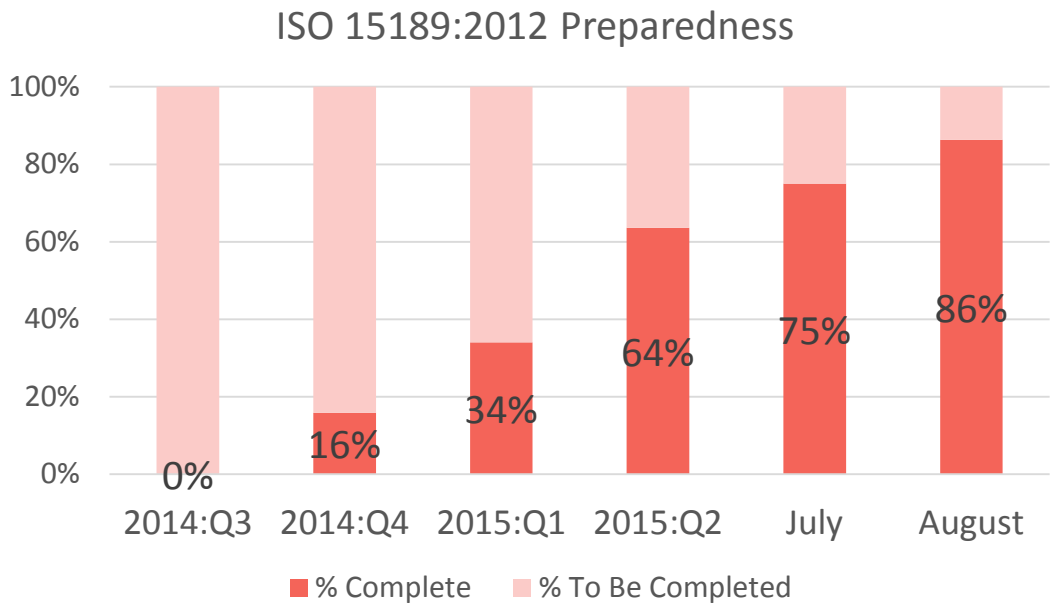


Pre-Assessment

- Optional
- Provides an opportunity to explain the requirements, policies, and expectations
- Normally lasts one day on-site
- Assessor provides lab a listing of items to work on

Pre-Assessment

- Valuable tool to prepare for on-site assessment
- Exhaustive review of most documents and processes
- Used report as audit tool for the next 11 months
- Useful validation of expectations of standards
- Allowed to become accustomed to how A2LA would inspect



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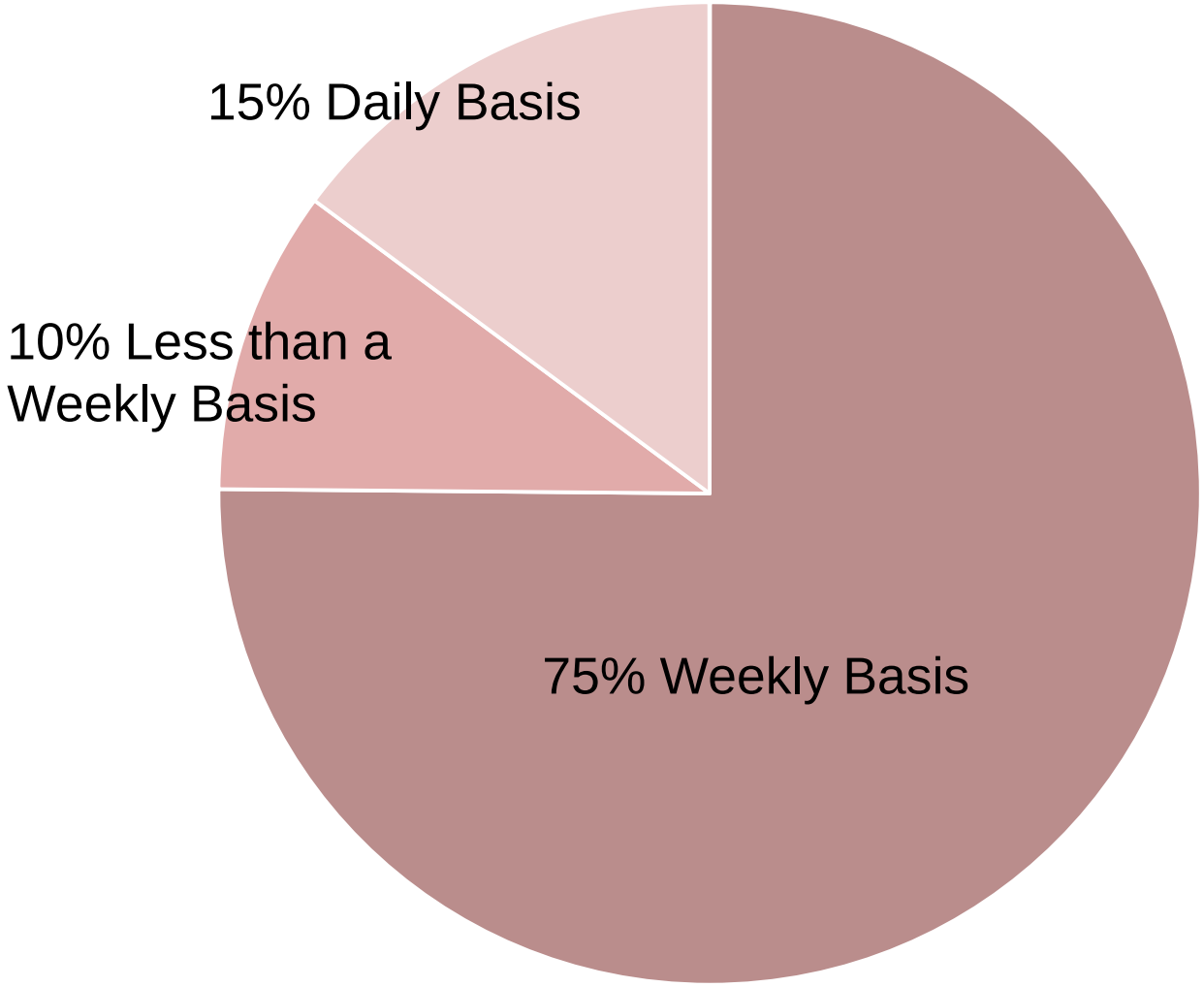
Assessment Preparation

- 5 formal audits against pre-assessment report
- 1 full audit of ISO:15198
- Filling the gaps identified in the pre-assessment
- Constant process improvements
  - Implementing new processes
  - Improve documentation of current processes
- 100 Documents put under document control
- 83 External References put under document control
- QRR Committee met twice a month

Percent of Company Actively Working on the Planning and Implementation of QMS



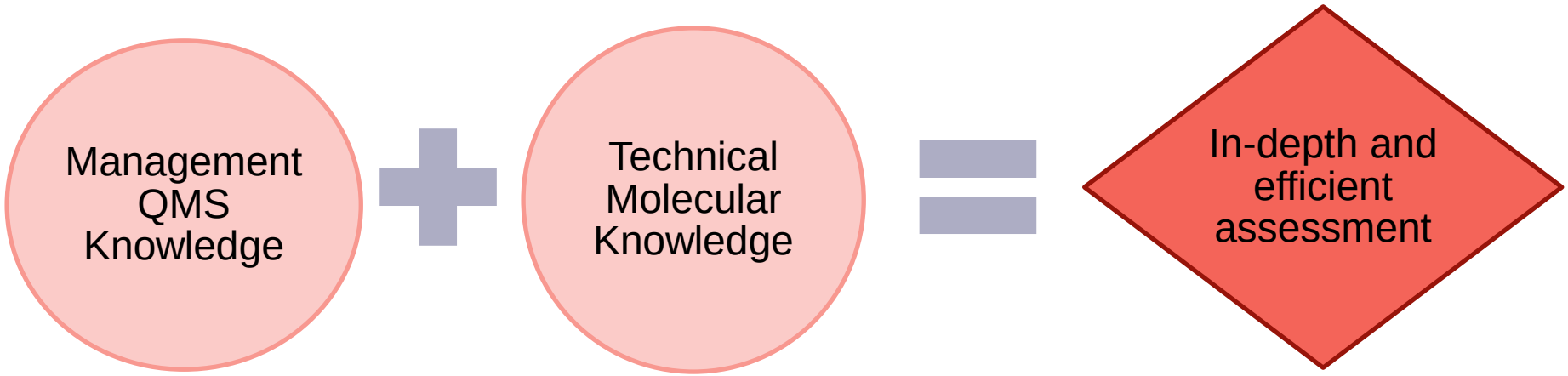
Assessors

- Assessor Qualifications
  - Technical expert with minimum of 10 years experience in the technology
  - A2LA provides 5 day training course
    - ISO 15189 Requirements
    - ILAC Policies
    - Assessment approach
    - Interviewing/Interpersonal skills
    - A2LA policies
    - Must pass a written exam
  - Technical match with Lab's Scope

Assessors

- Assessor Qualifications continued:
- Annual Technical Forum – refresher training
- Assessor monitoring
  - Staff assessor oversights
  - Staff evaluations (each assessment)
  - Lab feedback (each assessment)
  - Accreditation Council evaluates assessors

Two Assessors for On-Site Inspection



On-site Assessment

- Focus more on implementation than documentation
- Fact-finding mission
- Transparency-no surprises
- Findings must be cited to a requirement (ISO 15189, CLIA, labs own procedures not to an assessor opinion!)

On-site Assessment

- Management system review
  - Management review
  - Internal audits
  - Corrective and preventive actions
  - Document and record control
  - Areas “outside the lab” – procurement, customer feedback, complaints, reference labs

On-site Assessment

- Technical review
  - Observe tests
  - Interview personnel
  - Review records
  - Evaluate equipment
  - Proficiency testing results

On-Site Assessment

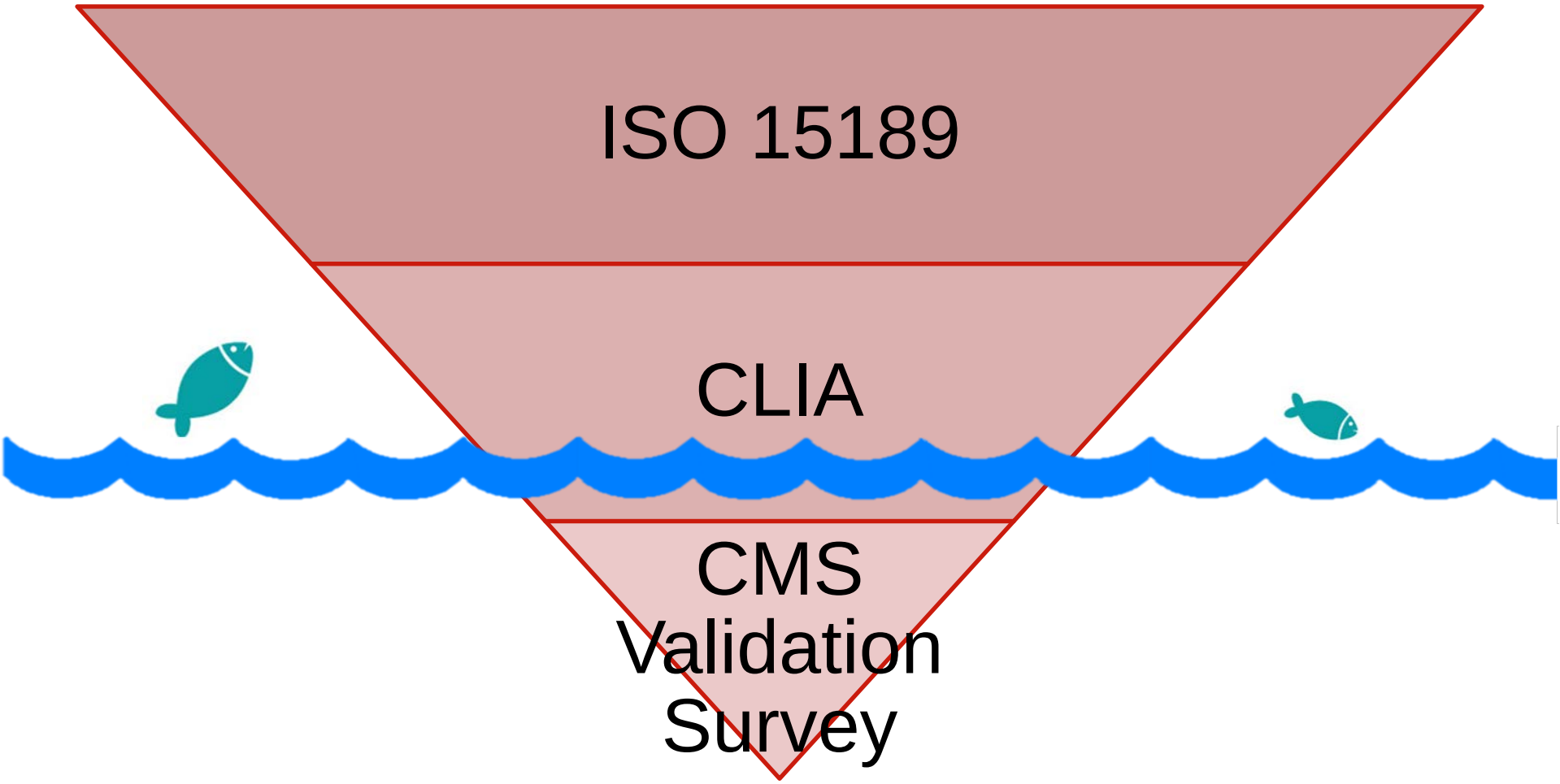
Management System

- Assessor + QA Manager at a desk
- Review of Documents and Records
- Reviews evidence of following requirements and internal policies

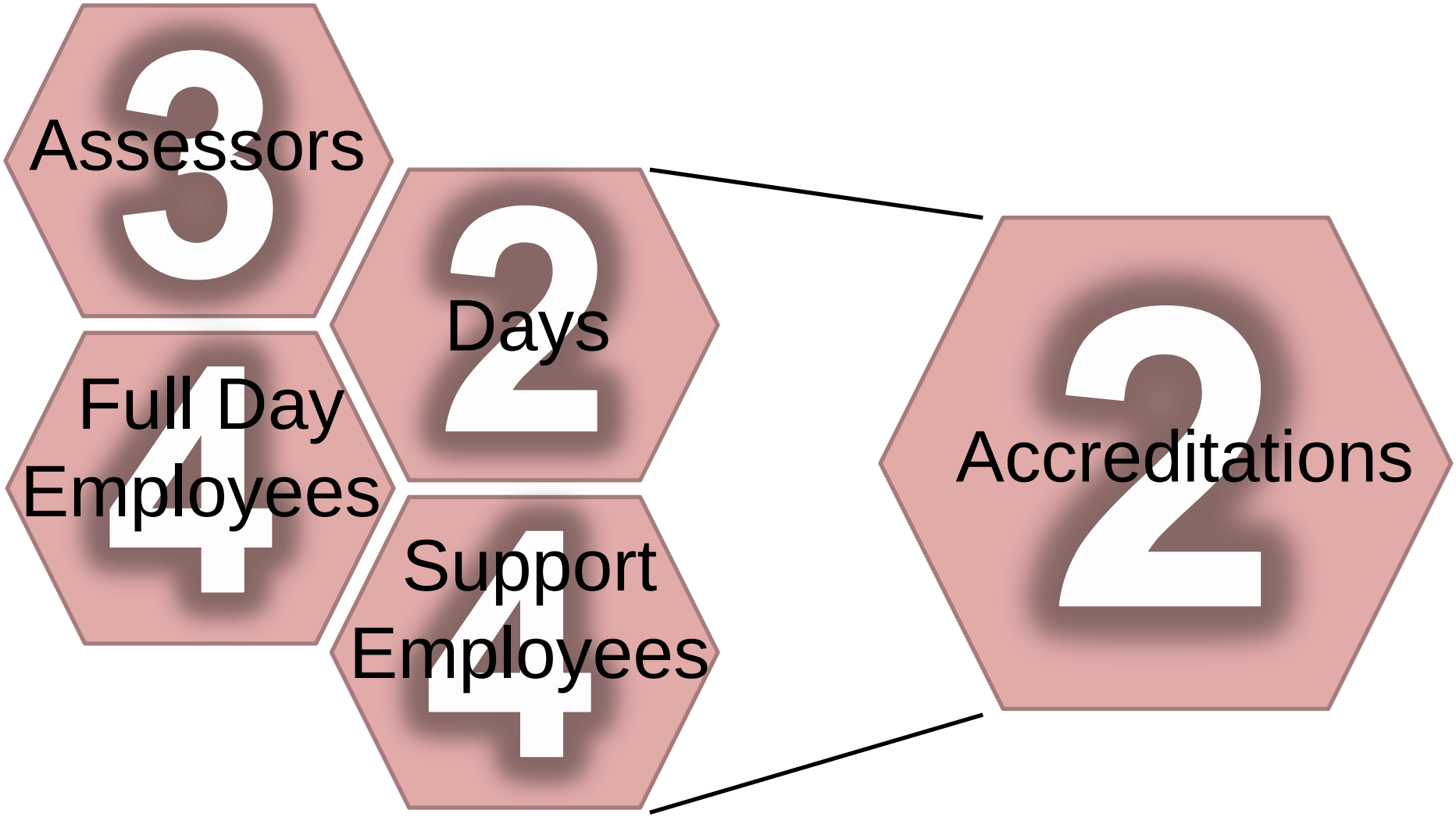
Technical

- Assessor and Lab Management in the Lab
- Interview Technologists
- Reviews validations
- Performed Tracer Audit

On-Site Assessment



On-Site Assessment by the Numbers



Reporting

- Exit briefing
- Final, written report provided at exit
- Instructions provided on responding to findings

Reporting

- Prior to citing a deficiency and completing report, assessors consulted regional CMS with discordant opinions
- Exit briefing was extremely thorough with evidence of what regulation was being cited
- Full official report given prior to departure
- List of Observations, optional, also provided, on ways to improve current practice or documents.

Corrective Action Process

- A2LA Requires:
  - Root cause investigation
  - Corrective action
  - Objective evidence demonstrating that deficiency has been closed
  - Past tense not “we will”

Corrective Action Process

- Explicit directions on how they want to see CAPA process
- Worked within internal policies of Non-conforming event and CAPA reporting and management
- Quick turn around time for feedback of submission
- Independent Accreditation Counsel reviews the objective evidence and determine whether to grant accredidtion

Recognitions

- A2LA is the only Accreditation Organization in the World that holds both:
  - CMS Deemed Status
  - International Laboratory Accreditation Cooperation (ILAC) Recognition

Recognitions

- A2LA maintains and operates a management system similar to our customers
- ISO 15189 Program is recognized
- ILAC recognition means labs results can be accepted internationally

Accreditation Value

Internal

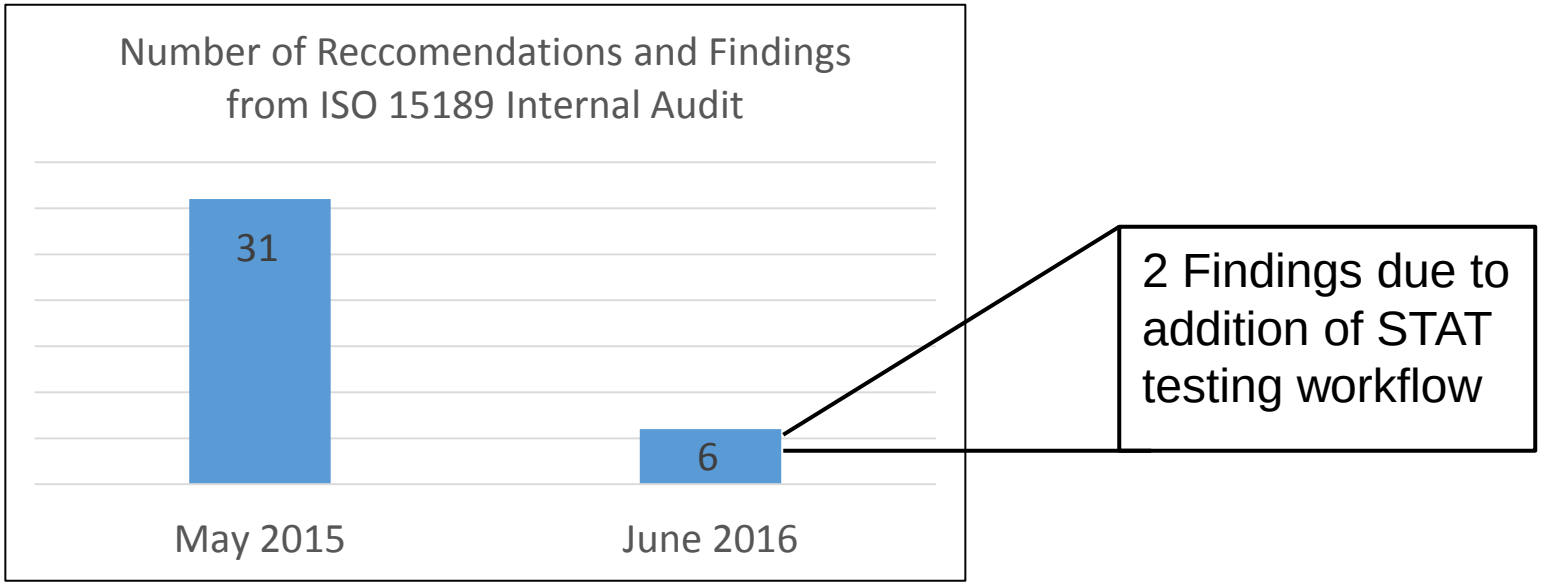
- Thorough prep and audit greatly improved our QMS
- Improved Culture of Quality Enterprise-wide
- Improved Regulatory Readiness
- Prepared us for future of FDA Oversight of LDTs

External

- Identifies us Early Adopter of Future Climate of QMS
- Marketing Opportunity
- Insurance Company Noted Accreditation as a sign of lower risk

Improved Regulatory Readiness

- Increased number and variety of internal audits
  - Required to perform ISO:15189 and CLIA annually, and Management Review semiannually.
- Increased number of qualified internal auditors
  - Gaining more unbiased audit results

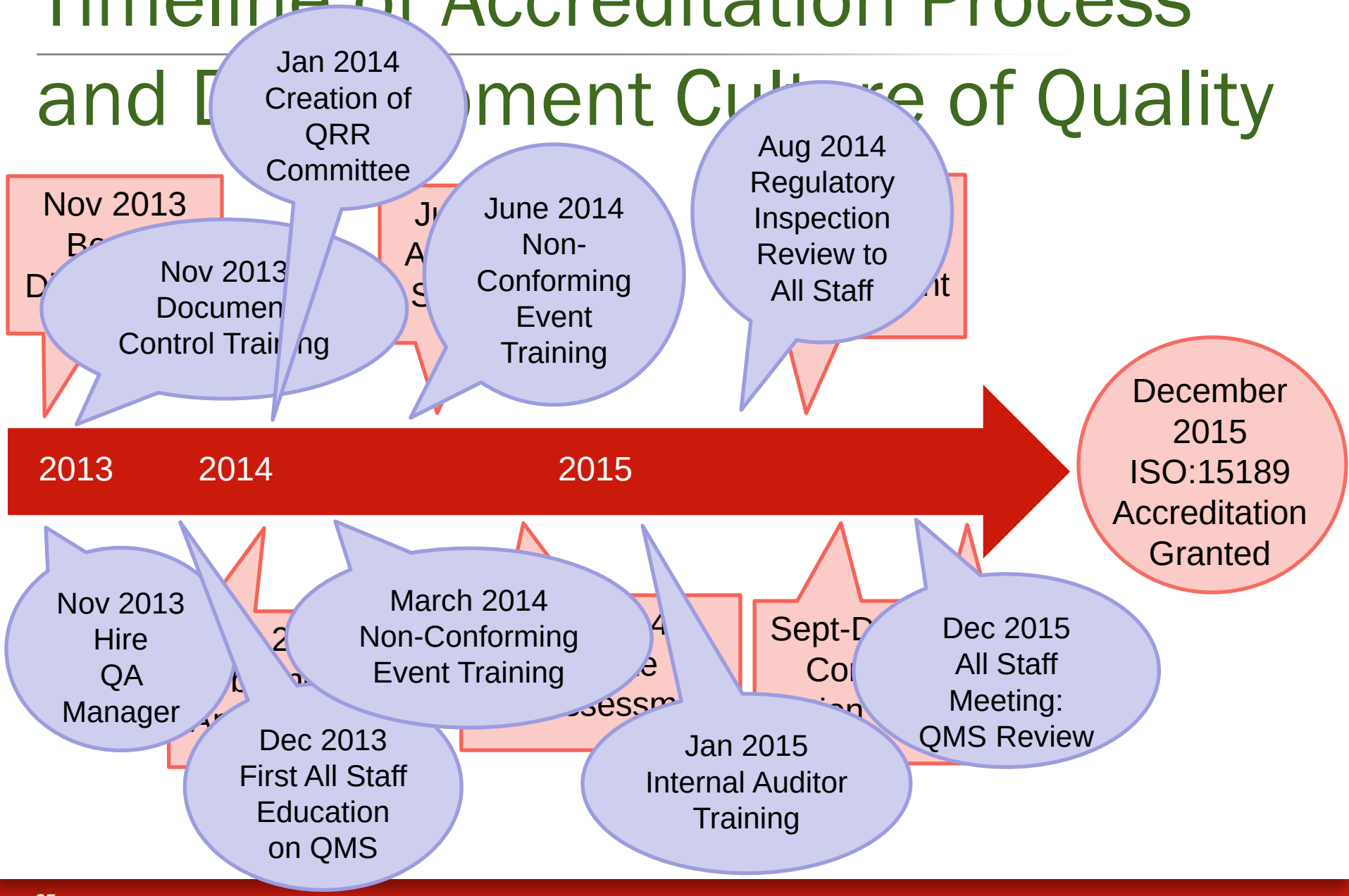


Improved Regulatory Readiness

Since gaining our ISO:15189 and CLIA accreditation we've had several successful on-site inspections, including:

- New York State Clinical Laboratory Evaluation Program
- Unannounced follow up to CMS Validation Survey
- State of California Department of Public Health
- Also renewed their license with: CA, MA, MD, PA, and RI

Timeline of Accreditation Process and D ment Cul re of Quality



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