



Timely Accurate Diagonostics for a TB-Free Africa

# Laboratory Quality Management System

Module 14: Accreditation

Venue:

Presenter:

Date:

# Introduction Laboratory Accreditation

#### Laboratory Assessment - WHY?

- recognition as delivering accurate and reproducible results
- recognition of compliance with the quality standards and norms used for the assessment







# Learning Objectives

At the end of this module, participants will be able to:

Compare and contrast accreditation,

certification and licensure;

Describe the process involved in the

development of standards;

Discuss the need for laboratory norms and

standards.

#### Module Outline

- Laboratory Accreditation
- Responsibilities
- Definitions
- Self-developed standards
- Standard bodies
- National Standards and Technical Guidelines
- Specific and National Norms, Standards and Regulations
- Elements of Accreditation process
- Process of Accreditation
- Accreditation outcomes



#### Activity 14-1:

# Preparations Needed for a Laboratory Accreditation

#### Purpose:

To provide an opportunity for participants to discuss preparations needed for a laboratory accreditation.

Suggested time: 10 minutes





#### Scenario

Your hospital administrator has asked you, the laboratory manager, to examine the possibility of having the laboratory accredited.

- What does it mean to be accredited?
- Where can you get information?

How would you get started?



The Quality Management System





1.

implements international or national standards

seeks information about appropriate norms and standards

Responsibilities

Laboratory

Director

seeks information about accreditation and certification processes

uses outcomes to provide better service



#### Laboratorian

aware of requirements

contributes to meeting standards

aware of assessment processes

helps prepare for assessment



explains the process for meeting standards to staff

organizes the laboratory in preparation for assessments



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### 2. Definitions

- Normative document— provides rules, guidelines or characteristics for activities or their results
- •Standard document—established by consensus and approved by a recognized body, that provides, for common and repeated use, rules, guidelines or characteristics for activities or their results, aimed at the achievement of the optimum degree of order in a given context

Regulation—any standard that is mandated by anational Reference Laboratory and the standard that is mandated by anational Reference Laboratory and The Free Africa Standard that is mandated by anational Reference Laboratory Timely Accurate Diagonostics for a TB-Free Africa

## 3. Self-developed Standards

Many agencies, organizations, or regions develop their own accreditation requirements rather than using internationally recognized standards.

#### Advantages:

- optimized for local use, recognized local strengths and weaknesses
- can be developed in progressive steps
- can lead to full international recognition

#### Weaknesses:

- may be narrow or biased
- may not be recognized by other organizations as

#### 4. Standardization Bodies

#### International organizations include:

- ISO
- **CLSI**
- CEN
- WHO





# International Organization for Standardization



world's largest developer and publisher of international standards

estandards are applicable to many kinds of organizations including clinical and public health laboratories





#### Clinical and Laboratory Standards Institute

global, nonprofit, standards-developing organization

promotes the development and use of voluntary consensus standards and guidelines within the health care community

documents are developed by experts working on subcommittees or working groups





# European Committee for Standardization



anational standards bodies in the European Economic Community and associated countries

general terms include openness and transparency, consensus, and integration





# World Health Organization



has developed several standards for diseasespecific diagnostic laboratories, such as polio, tuberculosis, influenza, measles





# 5. National Standards and Technical Guidelines

- Country-specific standards
  - () based on international standards
  - () adapted to the culture and general condition of the country

#### Guidelines

- supplement ISO standards with technical guidance for use in laboratories
- can address a specific kind of testing





# 6. Specific and National Norms, Standards, Regulations

SEA-HLM-286 Distribution: General

#### Quality Standards in Health Laboratories

Implementation in Thailand: A Novel Approach

> Mayura Kusum\* and Panadda Silva\*\*

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Director, Bureau of Laboratory Quality and Standards, Ministry of Public Health, Thalland onadda@dmsc.mooh.go.th

#### Quality Assurance of Sputum Microscopy in DOTS Programmes

Regional Guidelines for Countries in the Western Pacific







#### National Polio Laboratory Check List for Annual WHO Accreditation

#### Introduction

nce of acute flaccid paralysis (AFP) at an annual non-polio rate of ≥1/100,000 in children less lears is the standard for certifying polio eradication for all countries. The ultimate goal is a slitts classification system based on virologic evaluation of all AFP cases. Virologic evaluation of tests on two adequate stool specimens collected 24-48 hours apart from each AFP patient days of onset of paralysis. Supplemental virus surveillance may be required where appropriate, specimens from special surveys of healthy children, contacts of AFP cases, and the environment. fication purposes laboratory results are accepted only from a WHO accredited poliovirus y.

ation provides documentation that the laboratory has the capability and the capacity to detect, and promptly report wild polioviruses and vaccine derived polioviruses (VDPV) that may be

ess further provides a learning measure of progress, and a link to

National Polio Laboratory Checklis

SEA-HLM-379 Distribution: Limited

> by the WHO Regional Office and 2 months with complete data, given for the upcoming calendar

Accreditation of Health Laboratories in the Countries of the SEA Region

> Report of a Regional Consultation Bangkok, Thailand, 6-10 October 2003

> > WHO Project: ICP BCT 001



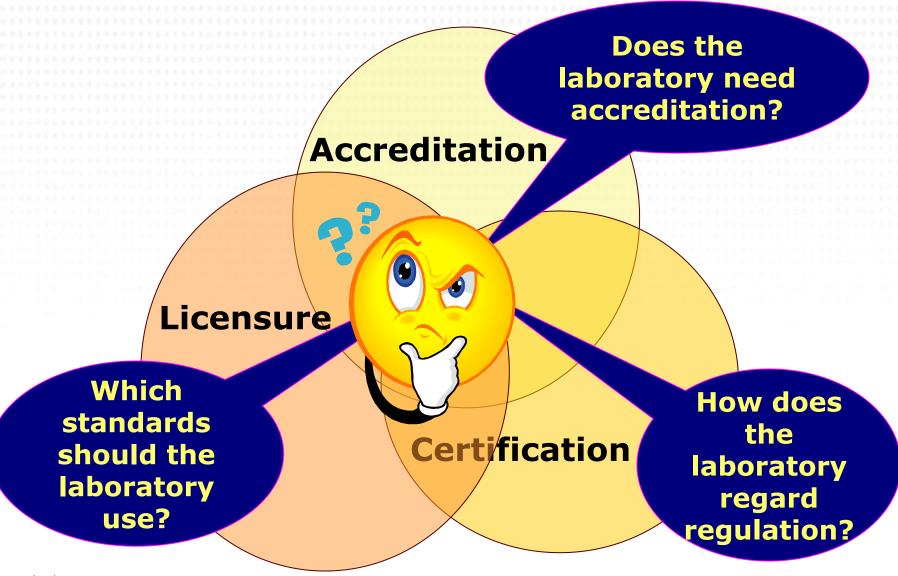
World Health Organization Regional Office for South-East Asia New Delhi February 2004





#### **Definitions**

- Certification (ISO/IEC 17000)
  - Procedure by which a third party gives written assurance that a product, process or service conforms to specific requirements.
- Accreditation (ISO 15189)
  - Procedure by which an authoritative body gives formal recognition that a body or person is competent to care out specific tasks.
- Licensure (Wikipedia 2007)
  - Granting of ability to practice provided most often by
    - a local governmental agency, usually based on Supranational® demonstrated knowledge, training and skills. Seference Laboratory







# 7. Elements of an Accreditation Process

- Accreditation Body
- Standards
- Assessors
- User laboratory





#### **Approved**

#### Knowledgeable



Certification and Accreditation Bodies



Standardsbased





Objective

LQMS/PP/014, Version 1.0, Effective date: 01-Jun-2019





# Examples: commonly used standards standards

- ISO 9001:2000
- ISO 14000
- Accreditation standards
  - () ISO 17025
  - () ISO 15189
  - WHO polio standards
- Regulations
  - US CLIA Regulations
  - French GBEA
  - UN Transport of Dangerous Goods Regulations



## Scope of ISO 17025



General requirements for competence

tests calibrations sampling

testing / calibration laboratories

quality administrative technical systems

Does not cover compliance with regulatory and safety requirements for laboratory operations

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## Scope of ISO 15189

Based on ISO 17025:1999

&

9001:2000

Medical Laboratory

Particular requirements for quality & competence



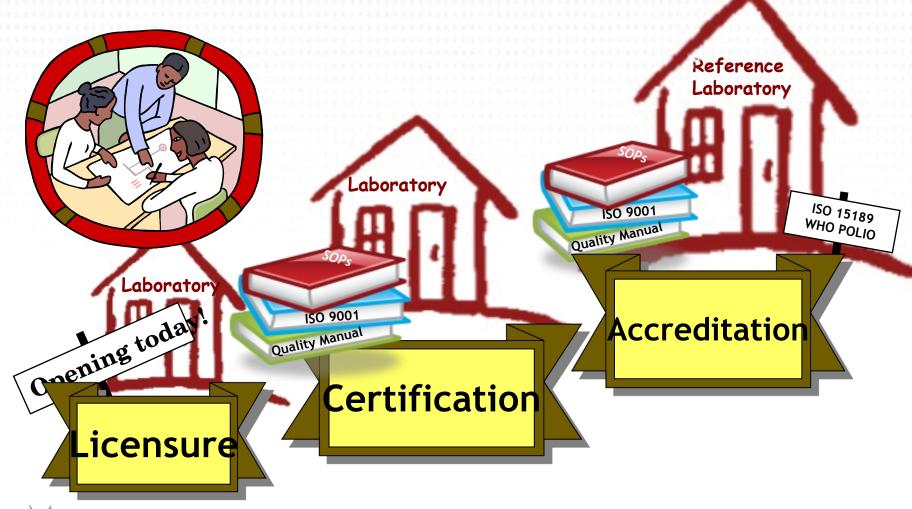
laboratory QM technical processes

quality administrative technical systems





## Where is your Laboratory?







#### **Process for Accreditation**

not one to be taken lightly or without forethought



commitment

planning

Requirements

knowledge

resources





#### **Accreditation Terms**

#### Consensus

erepresents general agreement in the absence of strong and compelling objection

#### **Normative Statement**

- required and essential part of the standard
- includes the word "shall"

#### Informative Statement

explanation (often a 'note') that may be explanatory, or cautionary, or provide an example

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#### **Accreditation Terms**

#### Compliance

meets both the text and the spirit of a requirement

#### Non-conformity

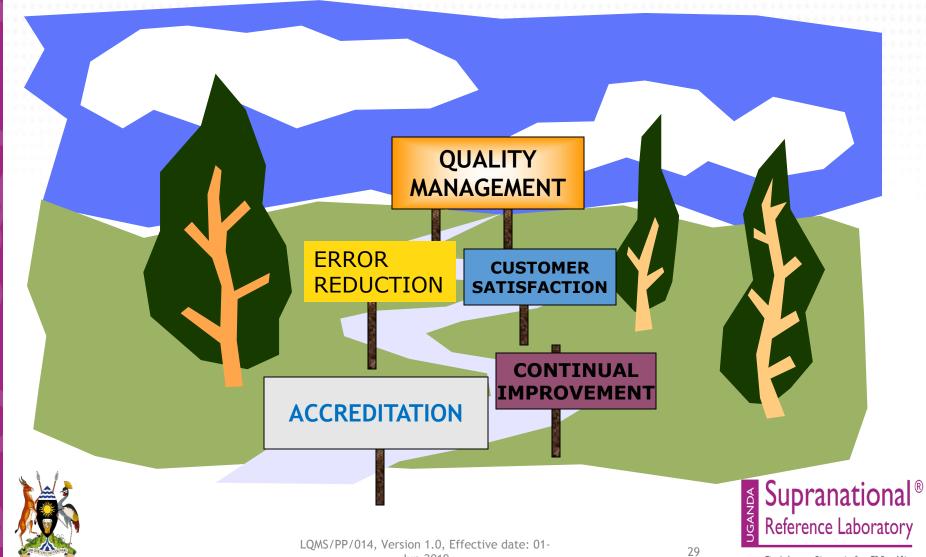
afailure to fulfill the requirements of a specified process, structure or service

may be categorized as major (complete) or minor (partial)

#### Verification of conformity

confirmation by examination of evidence pranational®

#### Accreditation does not guarantee success, it is only one step along the quality journey



#### 9. Accreditation outcomes

strength and integrity of the quality system are measured

continual monitoring of the quality system

recognition for efforts





#### Accredited laboratories tend to:

perform better on proficiency testing

are more likely to have a working quality management system



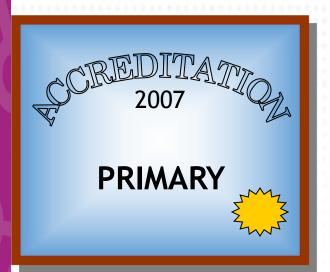


# It is an accomplishment to receive accreditation















# It is an ACHIEVEMENT to maintain accreditational®

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## **Test Questions**







#### Assessment

- 1. compare and contrast accreditation, certification and licensure;
- 2. What are the process involved in development of standards;
- 3. discuss the need for laboratory norms and standards.



## Summary

- Standards provide guidelines that form the basis for quality practices. They are developed by organizations.
- Accreditation and certification are processes that recognize that a laboratory is meeting the designated standards.
- An active quality management program can assure the laboratory is in a constant state of "accreditation-readiness".





# Key Messages

 Accreditation is an important step in the continual improvement of the quality management system.

• It is an accomplishment to be accredited; it is an achievement to maintain accreditation.





#### References

ISO 15189:2012 Medical Laboratories -Requirements for Quality and Competence

« Clause 4.14»









# Acknowledgement

















