HSTP
Health Systems Transformation Platform

Report

Expert Consultation on Developing Methodology for Competency Assessment of Medical Laboratory Technologists in Primary Health Care Setting

29th July 2022

Contact

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This report has been developed by Health Systems Transformation Platform (HSTP) to share the summary of proceedings of the expert consultation on developing the methodology for Competency Assessment for Medical Laboratory Technologists in Primary Health Care Setting. It was held virtually on 29th July 2022 from 2:30 to 5:30 PM.

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Prof Maharaj Kishan Bhan, HSTP's pillar of strength, continues to inspire our work. We are grateful to the HSTP Board for their support & Experts for their contribution. Special thanks to the HSTP team Rajeev Sadanandan, K. Rahul S Reddy, and Pratheeba J.

Objective

In 2019, Odisha Health Systems Strengthening Program, a four-year collaborative effort, was initiated by the Health System Transformation Platform (HSTP) in collaboration with the Government of Odisha and the Tata Trusts. The collaborative effort intended to improve Odisha's Health System to provide affordable and equitable access to quality care for its population while avoiding significant financial risks and improving citizen satisfaction. A health system diagnostic study in Odisha was conducted, which identified Primary Health Care Provider's competence as an area that needs improvement.

The Medical Laboratory Technologist is one of the essential members of the primary health care team. Hence, strengthening this cadre competency would play a significant role in improving primary health care performance. Towards that, competency assessment is the first step. HSTP, after a review of literature, developed a list of competencies for Medical Laboratory Technologists, which were finalized through an expert consultation on 7th April 2022. See the report here. Subsequently, it is required to develop methodologies to assess the identified competencies. HSTP developed the draft competency assessment methodology, and this expert consultation was organized to refine and finalize the method.

The expert consultation was held virtually on 29th July 2022 from 2:30 to 5:30 PM. Experts included Malkit Singh, Balbir Singh Shah, Gaurav Chhabra, Pankaj Kaul, Ashvinder Raina, M. Shivasakthy, and Sanjeev Kumar. **(Participant details in Annexure I)**

The expert consultation was structured as a discussion moderated by Malkit Singh. Sanjeev shared the methodologies developed from a review of the literature. Each expert shared views and knowledge on the methods presented. The consensus was reached on most methods. However, there were a few aspects that required some clarification. These were highlighted, and the experts will be sharing their inputs on these in the coming week. **(Agenda in Annexure II)**

Summary

Presented here is the summary of the discussion. Methodology for each of the competency domains was discussed in detail - Human Values and Professional Ethics, Quality Management, Communication and Interaction, Critical Thinking, Equipment Instruments and Consumables, Test Requisition -Data and Sample collection, Specimen Preparation. Assessment & Analysis, Recording, and Reporting Laboratory Safety and Infection Control.

- **Methodology Design:** The assessment methodology has been designed to assess competency in the form of knowledge, attitude, and skills for the identified ten domains of competencies parameters. Different types of tools have been developed to assess knowledge, attitudes, and skills, like; Checklist to assess knowledge and attitudes, observation tools, and Mini Laboratory Clinical and Case Studies for skills.

- **Human Values:** Human Values and Professional Ethics are fundamentally required for Medical Laboratory Health Professionals. Checklists have been developed to assess the knowledge and attitudes and skill observation. Five skills have been identified for observation; these are, Responsibilities toward Patients and their attendants; Respect for diversity, dignity, values, and beliefs; compliance with legislation that applies for Medical Laboratory Services in that facility; Prior Informed Consent from the patient/ Patient Representative.

- **Quality Management:** Quality Management is one of the critical domains for delivering quality laboratory services, which essentially needs competencies in the form of knowledge, attitude, and skills. There are twenty-four checklist points that have been identified to assess knowledge and attitudes. While to assess skills, eleven observational points have been identified, which are; Quality control, Reproducibility, Corrective Action and Preventive Action (CA-PA), Root Cause Analysis and preventive actions in case of any incidents/accidents and observable quality degradation, and Follow Protocols as defined in the quality Process and procedure manuals, Simple calculations, Calibration, Preventive Maintenance, Efficacy Testing.

- **Specimen Preparation:** This is one of the vital steps in the laboratory process. Hence the competencies for specimen preparation, and competencies to identify and process specimens on account of priority and stability is critical. To assess these competencies, apart from knowledge and attitudes, skills have been identified for observation and mini laboratory clinical. For observation, two skills have been identified. These are Identifying and preparing the samples for processing and Specimen suitability. Demonstration of skill under Mini Laboratory Clinical has also been identified as "Specimen Preparation for analysis."

- The experts also discussed the tool to assess knowledge, skills, and attitudes for the remaining seven competency domains.

Next Steps

Strong skills in program management, monitoring, and evidence-based policymaking are fundamental to ensuring successful programs with good outcomes. At the core of this are the practitioners – policymakers, managers, and other medical and non-medical personnel associated with these programs at the national, state, and district levels. We value their contribution to the current understanding of the Indian health systems. To enable transformation and lead the system toward universal health coverage, India needs enhanced capacities, especially in using evidence generated from the program and systemic analysis effects that lead to better health systems diagnostics, design, policy, and strategy.

According to HSTP's envisioned program to develop the competency of medical laboratory technologists in a primary health care setting in Odisha, methodologies for assessment of competencies are a crucial step. In the coming months, the following activities will be undertaken.

- Finalizing methodology and assessment tools after receiving inputs from experts on some aspects that required further exploration.
- A workshop will be organized in Bhubaneswar to customize the competency parameters and assessment methodology according to local needs in Odisha in consultation with the Government Department.
- Conduct research in Odisha to elicit information from sampled health facilities and professionals

Annex -1 Agenda
Video Conferencing Platform
29th July 2022, 02:30 PM –05:30 PM

Time	Proceedings
02:30 - 02:40 PM	**Welcome Note** Pratheeba J, Specialist, Health Financing, HSTP
02:40 - 02:45 PM	**Project Brief** Mr. Sanjeev Kumar, Specialist, Research, HSTP
02:45 - 02:50 PM	**Agenda Setting** Malkit Singh, Consultant, Medical Laboratory Technologists Competency, HSTP
02:50 - 3:00 PM	**Methodology Design** Sanjeev Kumar, Research Specialist, HSTP
03.00 - 5.20 PM	**Moderated Discussion on Methodology for Competency Domains** Malkit Singh (Moderator)
05:20 - 5:30 PM	**Next Steps** Sanjeev Kumar, Research Specialist, HSTP **Closing Remarks** Gaurav Chhabra, Associate Professor, AIIMS Bhubaneswar

Annex -II
Participants

S No	Name	Designation	Organization
1	Dr. Malkit Singh	Consultant, Medical Laboratory Technologists Competency	HSTP
2	Dr. Balbir Singh Shah	Professor-Pathology / Superintendent	Dayanand Medical College and Hospital, Ludhiana
3	Dr. Pankaj Kaul	Dean	Rayat Bahara University, Mohali, Punjab
4	Dr. Ashvinder Raina	Senior Technologist	Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh
5	Dr. M. Shivasakthy	Deputy Director	Centre of Health Professions Education, Sri Balaji Vidyapeeth, Pondicherry
6	Dr. Gaurav Chhabra	Associate Professor Nodal Person MLT Course	All India Institute of Medical Sciences (AIIMS), Bhubaneswar
7	Dr Pratheeba J	Specialist, Health Financing	HSTP
8	Mr. Sanjeev Kumar	Specialist, Research	HSTP