

Report

State Consultation: Odisha

Customizing Medical Laboratory Technicians' Competency Assessment Tool for Primary Health Care Settings

Bhubaneswar, Odisha
18 November 2022



Contact

Sanjeev Kumar | Specialist, HSTP | Sanjeev.kumar@hstp.org.in

This report has been developed by Health Systems Transformation Platform (HSTP) to share the summary of proceedings of State Consultation: Odisha, Customizing the Medical Laboratory Technicians' Competency Assessment Tool for Primary Health Care Settings conducted on 18th November 2022 in Bhubaneswar.

Disclaimer

Health Systems Transformation Platform is a not-for-profit organization registered in the name of Forum for Health Systems Design and Transformation; a company licensed under section 8 of the Indian Companies Act 2013.

Our mission is to enable Indian researchers and policymakers to conduct research and translate evidence for achieving Universal Health Coverage. We collaborate with Indian & Global expertise by strengthening stakeholder capabilities for health systems redesign, validating interventions, and fostering policy dialogue.

HSTP activities are funded by Sir Ratan Tata Trusts. HSTP also has a strategic partnership with ACCESS Health International to conduct similar activities. HSTP is committed to the highest standards of ethics and professional integrity in all its endeavours and declares no conflict of interest in its funding arrangements. The funders have no role in planning, designing, developing, and executing any HSTP activities, including organizing meetings/ workshops/training/ research/ publications/ and any other dissemination material developed for the use of health systems stakeholders in India and elsewhere.

The contents of this report should not be attributed to and do not represent the views of the funders. HSTP and its partners have taken all reasonable precautions to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for interpreting and using the material lies with the reader. In no event shall HSTP and its partners be liable for damages arising from its use.

Prof Maharaj Kishan Bhan, HSTP's pillar of strength, continues to inspire our work. We are grateful to the HSTP Board for their support & Dr. Malkit Singh, Dr Ashvinder Raina, Dr Devi Prasad Mishra, Dr Susama Patra, Dr. Binod Kumar Patro for their contribution. We also thank the HSTP team, especially Rajeev Sadanandan, and Aaliyah Ali Khan.

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/ Technician 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. HSTP has collaborated with the All-India Institute of Medical Sciences (AIIMS), Bhubaneswar to conduct the Competency Assessment of in-service medical laboratory technicians in primary health care facilities in Odisha, as state partner.

HSTP, after a review of literature, developed a list of competencies for Medical Laboratory Technicians, which were finalized through an expert consultation on 7th April 2022. See the report [here](#). Subsequently, Competency Assessment Tool (CAT) to assess the identified competencies was developed. To validate the Medical Laboratory Technologists/ Technicians CAT's content, HSTP organized expert consultation virtually on 29th July 2022. Refer to the report [here](#).

HSTP and collaborators felt the need to organize the State consultation to factor in the Odisha context into the Medical Laboratory Technicians competencies list and Competency Assessment Tool and customize the pharmacist's competencies and Competency Assessment Tool for Primary Health Care setting in Odisha.

This consultation was held on 18th November 2022 from 11:00 to 4:00 PM at Video Conference Hall, Academic Block, All India Institute of Medical Sciences, Bhubaneswar. Dr. Susama Patra, Dr Binod Kumar Patro, Dr Debi Prasad Mishra, Dr Malkit Singh, Dr. Rajendra Kumar Pati, Dr Nutan Panda, Dr Ashvinder Raina, Dr Samanyoya Mohhaut, Dr Mukund Namdev Sable, Dr Vinay Kumar Hallur, Dr Gaurav Chhabra participated in this consultation along with Sanjeev Kumar from HSTP. Please refer to Annex -2 for participant's details.

The inaugural session was chaired by Dr Sushama Patra, Professor and Head of the Department, Department of Pathology and Laboratory Medicine, AIIMS Bhubaneswar. All the experts opined that this consultation would support the cause for improving competencies of medical laboratory technicians in Odisha.

Summary

Experts discussed the list of primary healthcare medical laboratory Technician's competencies under the domains of Human Values and Professional Ethics, Quality Management, Communication and Interaction, Critical Thinking, Equipment Instruments and Consumables, Test Requisition data, Sample collection and transportation, Specimen Preparation, Assessment and Analysis, Recording and Reporting, Laboratory Safety and infection Control.

Experts also discussed the Competency Assessment Tools' (CAT) design and instruments. These instruments were to assess Knowledge, Attitude, and Skills for the listed competencies. Similarly, there were three instruments to assess skills; Observational Checklist, Mini Clinical Skills, and Case Studies. The summary of the discussion is below.

Human Values and Professional Ethics: One of the critical competencies for a Medical Laboratory Technician in this domain is to understand the human values and ethics in the clinical laboratory. Most of the experts agreed that this competency is essentially required for medical laboratory technicians in a Primary Health Care setting. All the experts agreed that the developed knowledge and attitude question under Competency Assessment Tool is optimally structured to get a response from study participants. Experts discussed all nine competencies and instruments like questionnaire, Observational Checklist, Mini Clinical Skills, and Case Studies, to assess competencies and consensus was made.

Quality Management: Understanding and performing preventive maintenance and calibration of laboratory instruments according to established protocols is one of the essential competencies for Medical Laboratory Technicians. Many experts shared that though this competency is vital, considering the current context, it is very difficult to perform preventive maintenance and carry out calibration of laboratory equipment. However, the preventive maintenance and calibration of identified equipment like Weighing Balance, Micro Pipettes, etc is feasible. Experts were in consensus that the observational checklist to assess the skills for Corrective Action and Preventive Action (CA-PA), calibration of equipment's and its means of verification elements are able to collect response from the study participants. Similarly, the rest of competencies along with its assessment instruments were discussed and consensus was made.

Critical Thinking: Demonstration of shelf life of ready to use commercially procured and in house prepared materials and reagents is one of the essential competencies for Medical Laboratory Technicians in primary health care setting. Experts lauded its importance unanimously in the discussion. However, it was shared that currently public primary health care facilities merely prepare reagents in current setting. Experts indicated consensus on the questions framed to assess knowledge and attitude for the skills from the study participants.

Similarly, experts discussed the competencies and competency assessment instruments for the remaining seven Medical Laboratory Technicians domain's competencies. There are five competencies under this domain, which were discussed, and consensus was made among the experts along with its competency assessment instruments.

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.

Similarly, during this state consultation, rest of the competencies and its assessment instruments for all the domains were discussed and consensus was made. The assessment phase of competency development of Medical Laboratory Technicians' in the primary health care setting in the Odisha project is being implemented in collaboration with All India Institute of Medical Sciences, Bhubaneswar and the Government of Odisha. HSTP will customize the Medical Laboratory Technicians' competency assessment tool based on consultation inputs, that will be further refined after pre-testing in primary health care facilities in Khurda District, Odisha. HSTP and All India Institute of Medical Sciences, Bhubaneswar will assess the in-service Medical Laboratory Technician's competencies in primary health care facilities in four sample districts in Odisha.

We intend to scale this program across the state and in states with similar contexts from the experience and learnings in the coming year.

<p>11:00 – 11:15 AM</p>	<p>Welcome Note Dr. (Prof) Sushma Patra, H.O.D, Dept. of Pathology and Lab. Medicine, AIIMS BBSR Opening Remarks Dr. Binod Kumar Patro, Dean Research, AIIMS BBSR</p>
<p>11:15-11:30 AM</p>	<p>Competency Project Overview Sanjeev Kumar, Research Specialist, HSTP New Delhi Competency Assessment: An Overview Dr Gaurav Chhabra, Associate Professor, Dept. of Pathology and Lab. Medicine AIIMS BBSR</p>
<p>11:30 AM – 1:00 PM</p>	<p>Domain Explanation: Understanding and Importance Dr. Malkit Singh, Expert Consultant-Medical Laboratory Technologist Competency Competency Assessment Tool: An Overview -Sanjeev Kumar, Domain wise Discussion Dr. Gaurav Chhabra, 1. <i>Human Values and Professional Ethics</i> 2. <i>Quality Management</i> 3. <i>Communication and Interaction</i> 4. <i>Critical Thinking</i> 5. <i>Equipment Instruments and Consumables</i> Discussion Facilitators: Dr. Malkit Singh; Dr. Ashvinder Raina (Senior Technologist, PGIMER Chandigarh); Dr. Gaurav Chhabra; Mr. Sanjeev Kumar</p>
<p>1:00 PM to 2:00 PM</p>	<p>Lunch Break</p>
<p>2:00 PM to 3:55 PM</p>	<p>Domain Explanation 6. <i>Test Requisition Data, Sample collection, and transportation</i> 7. <i>Specimen Preparation</i> 8. <i>Assessment & Analysis</i> 9. <i>Recording and Reporting</i> 10. <i>Laboratory Safety and Infection Control</i> Discussion Facilitators: Dr. Malkit Singh, Dr Ashvinder Raina; Dr Gaurav Chhabra; Mr. Sanjeev Kumar</p>
<p>03:55 – 4:00 PM</p>	<p>Conclusion and next Step Dr. Gaurav Chhabra</p>

Annex- 2 Participants

S. No.	Name	Designation	Organization
1	Dr. Susama Patra	Professor & Head of Department, Department of Pathology and Laboratory Medicine	All India Institute of Medical Sciences Bhubaneswar
2	Dr. Binod Kumar Patro	Professor, Department of Community Medicine & Family Medicine; and Dean Research	All India Institute of Medical Sciences Bhubaneswar
3	Dr. Debi Prasad Mishra	Retd. Professor Department of Pathology	MKCG Medical College, Berhampur, Odisha;
4	Dr Malkit Singh	Consultant- Medical Laboratory Science Competency	Health Systems Transformation Platform
5	Dr. Rajendra Kumar Pati	Additional Director	Directorate of Public Health, Department of Health and Family Welfare, Government of Odisha
6	Dr. Nutan Panda	Joint Director, Paramedics	Directorate of Health Services, Department of Health and Family Welfare, Government of Odisha
7	Dr. Ashvinder Raina	Senior Technologist, Department of Anaesthesia	Post Graduate Institute of Medical Education and Research Chandigarh
8	Dr. Samanyoya Mohhaut	Associate Professor	I.M.S. and S.U.M. Hospital Bhubaneswar
9	Dr. Mukund Namdev Sable	Associate Professor	Department of Pathology and Laboratory Medicine, AIIMS Bhubaneswar
10	Dr. Vinay Kumar Hallur	Associate Professor	Department of Microbiology, AIIMS Bhubaneswar
11	Dr Gaurav Chhabra	Associate Professor	Department of Pathology and Laboratory Medicine, AIIMS Bhubaneswar
12	Mr. Sanjeev Kumar	Specialist-Research	Health Systems Transformation Platform



**HEALTH SYSTEMS
TRANSFORMATION PLATFORM**

C1 Block, Plot No 4, ISID Campus
Institutional Area II, Vasant Kunj, New Delhi 110070

+91-11-6132 6500 | +91-11-6132 6599
www.hstp.org.in | [@HSTPIndia](https://twitter.com/HSTPIndia)