

| OBJECTIVES | STRATEGY | PRIMARY OUTCOME | SECONDARY OUTCOME | INDICATORS |
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| 1. Lab services integral to all the components of the program | Central level: Microbiologist to exclusively head the division of lab services at NACO and supported by qualified technical staff | Quality of laboratory services and other programs dependent on laboratory results should improve | Better integration of NACO laboratory network with program activities and also with other related national programs | Constitution of National core team for integrated training |
| | Central level: Development of a national core team from various institutions to support the program | Strengthening of lab network | | No. of HIV testing centres performing tests for TB and STIs |
| | | Creation of state level core teams for training of trainers | | No. of non NACO centres performing HIV testing and reporting results to designated authority |

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| | State level: Nodal officer for lab services in all SACS | Dedicated, appropriately qualified laboratory specialists as nodal officers should be appointed | Representations of NRLs, SRLs and NACO | No. of LTs other than NACO staff trained for HIV testing |
| | State level: Quality Manager in all SACS | Constitution of TRG at state level | Better and wider human resource recruitment and training | Timely release and utilization of grants |
| | | Representation of nodal officers in concerned specialty | | Uninterrupted supply chain of reagents and consumables |
| | | List and contact details of the testing facilities should be available with the Nodal officers and disseminated to concerned SRLs | | No. of labs in accreditation cycle |
| | | | | Evidence and turnaround time for complaint redressal |

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| | | | | Reduction in complaints |
| 2. Mentoring of the laboratory staff through the laboratory network | Establish a structure for technical supervision at every level | Every testing facility is supervised by/linked to a technically trained person | All test reports should be signed by technically competent authority | Mandatory annual audit by technical officers of linked SRL using a standardised checklist |
| | | | Participation in EQAS | Review of the audit by state TRG on a quarterly basis |
| | | | Quality of test results should improve as evidenced by better proficiency testing results | Implementation of corrective action by SACS |
| 3. HIV testing policy | Same as NACP III with minor modifications in clause 5.6.2 | NA | NA | NA |

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| 4. Improving quality standards in laboratory services | Ensure conformance to quality standards in HIV testing at various levels | NABL accreditation of HIV testing laboratories | Increase in the scope of accredited tests beyond HIV testing | 100% NRLs and 60% SRLs should enter accreditation cycle. The remaining 40% should score at least 60% in internal audits conducted by NACO based on assessment checklist. |
| | | | Advocate with regulatory bodies (e.g. MCI, DMER , DCGI), states and other national programs on impact of adherence to quality standards | No. of labs entering accreditation cycle for non HIV tests |
| | | | | No. of states and other national programs taking initiatives to enter accreditation cycle |

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| 5. Improvement in laboratory safety and biosecurity | Ensure safety of laboratory personnel, service users, community and the environment | Adherence to standard precautions and National Biomedical Waste Management Regulations | Preventive action e.g. HBV vaccination of laboratory personnel | No. of centres reporting 100% coverage with HBV vaccination of laboratory personnel |
| | | | Incident reporting and corrective actions | Proportion of centres having a system in place for documenting and reporting Incident occurrence and management |
| | | | Training of health care personnel in biosafety | |
| | | | Institution of occupational safety measures | |

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| 6. Optimal human resource management | Capacity building | Optimal utilization of the trained staff for providing a range of laboratory services | Increase in the range and quality of laboratory services in collaboration with CTD and IDSP | Reduced attrition rates over time |
| | Multitasking (lab testing) | Harmonization of remuneration with other governmental agencies | Retention of trained laboratory staff | Proportion of lab personnel trained in and performing tests other than for HIV |
| | Adequate remuneration and reduction in attrition | | | |
| 7. Innovative strategies for enhancing implementation of lab services | Creation of e-resource for addressing needs of laboratories | Augmenting motivation of laboratory personnel | Rapid resolution of technical queries of laboratory personnel | No. of e-resources created |
| | Evaluation of appropriate newer technologies including point of care diagnostics | Encouraging laboratory personnel to enhance their knowledge base | Determination of suitability of newer technologies for program use | No. of personnel accessing the e-resources |

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| | <p>Evolve operational research strategies for optimal service delivery e.g. exploring methods for transport of samples, HIV-2 burden assessment and reassessment of HIV testing strategies/algorithms, feasibility of introducing incidence testing for surveillance</p> | <p>Improved program delivery</p> | <p>Wider geographic coverage using existing resources</p> | <p>TAT for resolution of technical queries</p> |
| | <p>Sustain and expand the scope of NRL Consortium on Quality</p> | | | <p>No. of appropriate newer technologies evaluated</p> |

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| | Exploration of partnerships in public and private sector | | | Identification of newer program delivery mechanisms e.g. Transportation of whole blood / serum to existing testing facilities |
| | | | | No. of partnerships explored/established for enhanced program delivery |
| 8. Integration with NRHM | Initiation of pilot projects in some states (3-4) in consultation with NRHM e.g. HIV and STI | Wider access to HIV/STI testing for antenatal mothers | Increased detection of HIV positive mothers | No. of NRHM centres adopting antenatal HIV testing |

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| | testing of ANC attendees | | Better coverage of PPTCT services | No. of HIV positive mothers referred by NRHM to PPTCT services |
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