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ICMR-NIE Initiative to Support Operational Research in Health in India

Tamil Nadu State-level Operational Research Course (2026-27)

Call for Applications

About ICMR-NIE and TN DME&R

ICMR National Institute of Epidemiology (ICMR-NIE, https://nie.gov.in/), Chennai, is one of the permanent institutes of the ICMR, Department of Health Research (DHR), Government of India. ICMR-NIE located in Chennai is Indian Council of Medical Research's (ICMR) flagship organization that focuses on training and research in the areas of biostatistics, epidemiology, public health and health systems. ICMR-NIE hosts the ICMR School of Public Health.

Tamil Nadu's Directorate of Medical Education & Research (TN DME&R, https://tnhealth.tn.gov.in/tngovin/dme/dme.php) plays a pivotal role in developing medical and para-medical personnel to cater to the health needs of the state. The Directorate has a role to play in establishment and maintenance of well-equipped teaching institutions, which are the premier referral centres with state-of-the-art equipment and technology. Research is another area of activity for the Directorate.

Background

Any research used to generate practically usable knowledge to improve program implementation, regardless of the type of research is called operational research (OR). In this document, we will use OR to denote both operational and implementation research. OR is one of the many strategies to improve program performance. It is recommended that any health program should incorporate OR. In addition to routine monitoring and evaluation, OR should also guide ongoing program implementation.

For details, visit https://www.youtube.com/watch?v=5V39XdsJa1M and https://open.spotify.com/episode/0JkJqh2d36LcxyGZm3Q3DN.

Of late, in addition to leading OR projects, ICMR-NIE has also supported OR in India through the WHO/TDR accredited **S**tructured **O**perational **R**esearch and **T**raining **I**ni**T**iative (**SORT IT**). SORT IT is conducted under the umbrella of the Special Programme for Research and Training in Tropical Diseases hosted at the World Health Organization (WHO/TDR). SORT IT supports organisations, projects and countries to undertake OR in accordance with their own priorities, develop adequate and sustainable OR capacity, and create an organisational culture of policy and practice being informed by OR, leading to improved program performance. The initiative teaches the practical skills needed to undertake and publish OR.

SORT IT is a certificate course that combines capacity building with implementation, hence bridging the 'know-do' gap. Through a competitive process, mentees (max 12 per course) are selected who could be program managers, program implementers or researchers/ academicians closely working with health programs. Mentees are linked to mentors in 1:1 ratio. One SORT IT course involves around three one-week residential modules over a year

where mentees work on mentored OR projects on national priority research questions with mandatory milestones to be met. Not meeting the milestones means mentee failing the course. This is non-negotiable. The final milestone is milestone 4 after one month of module 3: submission of the OR paper to a peer-reviewed scientific journal for publication. As per SORT IT requirement, all SORT IT publications are tracked for policy/practice impact. Though these courses are fully supported with no financial implications for the mentees or mentors, the courses do not fund the research per se. The mentored OR projects are conducted in routine health system settings using available/ existing resources and workforce.

During 2021-23, ICMR-NIE provided senior mentorship support in SORT IT courses led by WHO on antimicrobial resistance. In 2023-24, under the aegis of ICMR School of Public Heath (hosted at ICMR-NIE), the Division of Health Systems Research, ICMR-NIE, successfully completed a SORT IT course (2023-24) for oncology practitioners of Cachar Cancer Hospital and Research Centre (CCHRC), Silchar India. Eight mentees completed eight mentored OR/IR projects, six papers are published, and the remaining two papers are under review. In addition, to building capacity, the findings from the mentored OR projects have impacted changes in the day-to-day practices at CCHRC Silchar. In collaboration with Central TB Division, we implemented ICMR-NIE led TB SORT IT course 2024-26. From the first year of the course, 12 mentees submitted 13 manuscripts to a peer-reviewed scientific journal, of these twelve are published as of date. Some of these are available as lightning presentation videos and are contributing to policy and practice change. In the second year, 11 mentees continued and implemented 11 mentored OR projects and 9 manuscripts are accepted for publication.

ICMR-NIE's EoI for OR courses under 'ICMR-NIE Initiative to Support OR in Health in India'

In February 2026, ICMR-NIE issued its Call for Expression of Interest (EoI) for OR courses under 'ICMR-NIE Initiative to Support OR in Health in India'. Through this initiative, ICMR-NIE intends to support state health departments and national health programs in India to undertake operational research in accordance with their own priorities, develop adequate and sustainable operational research capacity, and create an organisational culture of policy and practice being informed by operational research, leading to improved program performance.

TN DME&R expressed interest and was selected through a competitive process. As a result, during 2026-28, **two Tamil Nadu State-level Operational Research Courses** will be jointly conducted by ICMR-NIE and TN DME&R. Both courses will be completely supported by funds from ICMR-NIE and TN DME&R. As a result, a critical mass of 24 trained operational researchers within Tamil Nadu along with 24 OR projects will be developed/ implemented on priority OR questions of the state translating into 24 OR manuscripts. Evidence generated from these OR projects from routine program and health system settings will guide existing policy and/or practice. The OR courses conducted under this initiative will NOT be called as

SORT IT courses as these will not be accredited by WHO/TDR. Nevertheless, ICMR School of Public Health at ICMR-NIE will follow the same modular training approach combined with tracking milestones to award certificates to successful mentees.

The objective of these OR courses is to

- Enhance the capacity of Tamil Nadu's workforce at various levels including i) Directorates and other entities under the Ministry for Health, Medical Education and Family Welfare and ii) Researchers and Academicians closely working with (but not part of) Directorates and other entities under the Ministry for Health, Medical Education and Family Welfare.
- Generate evidence for decision making (practice and/or policy change) within Tamil Nadu's Ministry for Health, Medical Education and Family Welfare.

The strategy will be

- Identification of participants through a competitive process (mentees)
- Identification of suitable mentors
- Linkage of mentors to mentees
- Developing OR capacity through mentored OR projects and papers around **Tamil Nadu's priority OR questions** (leading to OR course certificate)

ICMR-NIE Chennai (lead institution/secretariat), TN DME&R and partners (co-institutions experienced in OR in India) plan to implement this along with support. These courses will be led by the Division of Health Systems Research of ICMR-NIE, under the aegis of ICMR School of Public Health (hosted at ICMR-NIE).

Tamil Nadu State-level Operational Research Course (2026-27)

This Tamil Nadu State-level Operational Research Course (2026-27) is the first of the two OR courses being planned.

ICMR-NIE and TN DME&R jointly invite applications from health workforce at various levels including i) Directorates and other entities under Tamil Nadu's Ministry for Health, Medical Education and Family Welfare and ii) Researchers and Academicians closely working with (but not part of) Directorates and other entities under Tamil Nadu's Ministry for Health, Medical Education and Family Welfare. We do not encourage applications from for-profit private sector.

The initiative teaches the practical skills needed to undertake and publish operational research. The course duration is one year with 3 modules per year with clear milestones and measurable targets. Failure to fulfil the expected outputs linked to each module implies the candidate does not return for the next module. Mentees go through the whole research process and complete the OR course with a defined product which is a peer-reviewed OR manuscript to be submitted for publication in peer-reviewed scientific journals which in turn contributes to improved policy and/or practice.

Number of Mentees

This certificate course proposes to include 12 mentees (Indian nationals) for a period of one year. The mentees retain their existing affiliation and attend nineteen days (divided across three modules) of in person modular training over a year in Chennai. Selection will be competitive. Application from participants who have already completed or attended a SORT IT course will be rejected. Young participants (<40 years) will be preferred. However, this should not discourage others to apply.

Faculty for the course

The course will be facilitated by experienced, reputed faculty/ mentors and successful mentees of the earlier SORT IT courses in India/elsewhere who have now been promoted as junior/senior mentors.

Modules

The course is composed of three practical residential modules (in person at Chennai), conducted over a period of 12 months.

Module 1: Research question and protocol development – 21 to 26 September 2026 (key deliverable, see milestone 1 below)
Module 2: Data management and data analysis – 28 September to 03 October 2026 (key deliverable, see milestone 2 and 3 below)
Module 3: Scientific paper writing – 06 to 13 August 2027 (key deliverable, see milestone 4 below)

Milestones

Milestone 1 - Submission of OR proposal to ICMR-NIE Ethics committee (deadline 19 October 2026)
Milestone 2 - Submitting the data capture tool and data analysis plan to course coordinator (deadline 19 October 2026)

Milestone 3 - Submission of the OR related anonymized data and draft analysis to course coordinator (deadline 09 July 2027)
Milestone 4 - Submission of OR paper to peer reviewed indexed scientific journal (deadline 13 September 2027)

Mentored Operational Research projects under the course

The OR will have to be carried out within 6 to 8 months, encouraging simple research projects at sufficient scale that address the barriers in achieving the objectives of the program or barriers in implementing the activities to achieve the objectives (see **Annexure** for Tamil Nadu's priority OR questions in Health). These should be mostly based on secondary quantitative data that are routinely collected and available in paper-based forms (registers or treatment cards) or electronic databases. The secondary data may be captured retrospectively and/or prospectively. Only if required and guided by the research question, some variables (quantitative or qualitative) may be collected as primary data (data that is not routinely captured by the program). Feasibility to do so within the course timelines should also be considered as such OR proposals (involving primary data) usually undergo a full ethics review and this process takes time. Based on experience, we advise applicants to submit concept notes involving secondary data as much as possible. To summarize, OR involving and questionnaires (primary data) are less likely to be accepted as suitable for this course as they cannot usually be completed within the time frame.

Tamil Nadu OR Agenda is depicted in **Annexure** (at the end of this document). In the applications, we encourage one-page concept notes around these priority OR questions (see **Annexure**)

OR course certificate

On attending all three modules and successful completion of all milestones in year one, the participant will receive the OR certificate from ICMR-NIE, signed by ICMR-NIE and TN DME&R. There is no participation certificate.

What does a mentee gain?

- Practical skills for undertaking the entire operational research process from concept to publication
- The experience of learning and sharing knowledge within a team of motivated mentees from Tamil Nadu and talented facilitators in operational research (who act as mentors) from Tamil Nadu and different states of India.
- An opportunity to excel and gain visibility in operational research and to prepare for increased research responsibilities and research leadership in the state.

- Successful mentees will be strongly encouraged to help train and eventually lead others (as mentors in the next OR course in 2028-29 and later) to maximise long term capacity development and impact. The philosophy used is “see one, do one, teach one”

What does the mentee’s organization gain?

- A person who is well trained in OR and can help their program or institution undertake relevant OR to identify challenges and improve program performance in a sustainable manner.
- The approach will strongly complement “innovation” within routine operations and contribute to critical reflection on program orientation and its impact over time.

Course follow-up

- In between the modules 2 and 3, candidates will return to their respective health programs/institutes/organizations to continue their routine work and in addition collect the data pertaining to their OR projects.
- Mentees will be contacted intermittently after course completion to determine accomplishments and policy and practice impact of their studies.
- Mentors will be available to provide guidance.

Criteria for successful applicants (mentee)

- Involved actively in the running of a national or state or NGO program or major health institution or project or disease-specific field
- Statement from applicant - Provide written commitment to attend all three residential modules over one year of the training course, return to their program or institution after the course and implement course knowledge at program level for a minimum of at least 30 months from the start of the course. **This is mandatory and we urge you to use the standard template provided.**
- Name, contact details and letter of support from the administrative head - Provide a letter of support from the administrative head or coordination/operations or relevant authority attesting to granting the applicant permission to have time and opportunity to carry out and publish operational research (with applicant being the first author) and adhere to all the course milestones and timelines. **This is mandatory and we urge you to use the attached standard template.** Name and contact details of the administrative head should be kept ready before filling the online application.
- Name, contact details and letter of support from the state program manager or institute/organization head providing administrative approval (as applicable) to conduct the study and access secondary data– Provide a written statement from the

relevant authority attesting to the same. **This is mandatory and we urge you to use the attached standard template.** This individual could be the same or different from the administrative head of the applicant. **If it is the same, then a separate letter is not required and the letter of support from administrative head could include the details on administrative approval to conduct the study and access secondary data**. Name and contact details of the should be kept ready before filling the online application.

- Name, contact details and letter of support from an experienced local mentor is encouraged (**not mandatory**). Name and contact details of the local mentor should be kept ready before filling the online application (**not mandatory**).
- Additional recommendation letters that can strengthen the application are also encouraged (heads of other directorates, policy makers and so on, **not mandatory**).
- Ability to mobilize the funding required to carry out operational research. Please note that we do not provide any funds for conduct of research which should be conducted in routine operational settings utilizing existing workforce and resources.
- **Outline a one-two-page concept note** with a) title (max 20 words) a) description of a problem that the candidate has identified within a given program (max 250 words) b) formulate a research question (using PICOT/ POT format, max 100 words) that is proposed to be developed into an operational research project during the course. and c) brief methodology (max 250 words) including whether primary or secondary data collection (if secondary, what is the source of data and whether it is available in paper-based or in electronic format and whether you have the permission to access data). **Submitting a one-two-page concept note is mandatory**.
- Fluent in written and spoken English and computer literate

Sponsorship

- We will provide a full scholarship to successful applicants (12 mentees). The scholarship includes all tuition fees, travel expenses, meals, accommodation and manuscript submission and other related charges (on a case-to-case basis).

How to apply?

Please read this call for applications document completely before applying.

Application deadline: **Monday, 10 August 2026**

To access the templates for the supporting documents: Cntl+Left Click here for Templates

Application along with supportive documents must be submitted online using the online application link provided below. We will NOT accept applications over other channels of communication.
Cntl+Left Click here for Online Application link

In addition to filling the required details in the online application link, the supporting documents (all merged into a single pdf) that must be uploaded at the end of the application are:

- *Short one page CV of applicant (no template provided) - mandatory*
- *Statement from applicant (template provided) - mandatory*
- *Letter of support from administrative head (template provided) – mandatory*
- *Letter of support from state program manager or institute/organization Director providing administrative approval to conduct the study and access secondary data – mandatory (modify the template of administrative head)*
- *One/two page(s) concept note (template provided) - mandatory*
- *Written recommendation from a local mentor (no template provided - not mandatory)*
- *Other recommendation letters to strengthen your application, say letter of support from the state (or higher level) program manager or policy maker or any other individual, as appropriate (no template provided - not mandatory)*

For any other clarifications, please email ICMR-SPH office (icmrniesph@nie.gov.in) with a copy to Dr Hemant D Shewade, Scientist F, Division of Health Systems Research, ICMR-NIE (hemant@nie.gov.in)

Note:

1. Failure to provide all the above requested information and documents in the suggested templates will result in the rejection of your application at the stage of screening itself. Incomplete applications will also be discarded at the stage of screening.
2. The decision of ICMR-NIE and TN DME&R will be final in matters related to the selection to the course. You will not be able to pursue any dispute related to selection matters legally. Apply to the course only if you agree to this condition.
3. Please note that all supporting documents must be merged as a single pdf

Annexure: Tamil Nadu's Priority Operational Research Questions (Health)

identified during

Tamil Nadu's Operational Research Agenda Setting Workshop (Health), July 15, 2026

Venue: Directorate of Medical Education and Research, Chennai, Tamil Nadu

Representatives of ICMR National Institute of Epidemiology (ICMR-NIE), Tamil Nadu Directorate of Medical Education & Research (TN DME&R), Directorate of Public Health & Preventive Medicine (TN DPH&PM), Directorate of Medical & Rural Health Services (TN DMRHS), Tamil Nadu Health Systems Reforms Project (TNHSRP) met for a one-day workshop to finalise these priority operational research questions (health) for Tamil Nadu. This workshop was led by ICMR-NIE and TN DME&R.

1. Among House Surgeons, Postgraduates, and Faculty members working in Medicine and Pediatric wards- what factors constrain the stepwise implementation of the Tamil Nadu State Antibiotic Guidance Book (2nd Edition) in achieving rational antibiotic prescribing for respiratory tract infections and central nervous system infections.

2. Implementation of hand hygiene protocol including 5 moments of hand hygiene in Reducing Catheter Associated Urinary Tract Infections / Pneumonia/ Central Line Associated Blood Stream Infections in Intensive Care Unit patients

3. Implementing a structured, multidisciplinary prescription audit system based on NMC, NABH, WHO prescribing indicators, National List of Essential Medicines (NLEM), and institutional Standard Treatment Guidelines on medication errors, rational drug use, and adherence to treatment guidelines among inpatients in a tertiary care hospital

4. In Pregnant women with severe anaemia at second & third trimester attending Government Medical College Hospitals, what are the missed opportunities in the identification, referral, and management of severe anaemia, compared with recommended care as per national guidelines, and how do these gaps affect maternal and fetal outcomes during the antenatal period until delivery.

5. At Government Medical College Hospitals, does the implementation of a structured clinical audit and feedback system for blood component availability and utilization, improve blood component inventory management, appropriate clinical utilization, reduce wastage, and enhance compliance with national transfusion guidelines

6. In Patients undergoing abdominal surgeries in Government Medical College Hospitals, what patient-, provider-, and health system-related factors influence compliance with the recommended timing of preoperative antibiotic prophylaxis, compared with non-compliant practices, and what is their effect on surgical site infection rates during the perioperative period and up to 30 days after surgery?

7. In Government Medical College Hospitals, does implementation of the Ayushman Bharat Digital Mission to enable digital continuity of care, compared with existing paper-based or fragmented digital systems, improve ABHA-linked electronic health record utilization, continuity of care, referral efficiency, follow-up compliance, and patient care outcomes?

8. Among adult inpatients in Government Medical College Hospitals, what is the adherence to the hospital nutrition policy promoting hospital-provided meals. What is the nutritional status, recovery outcomes, patient satisfaction during hospitalization?

9. In Government Medical College Hospitals, what is the comparative cost-effectiveness of centralized CSSD-based sterilization versus departmental sterilization in improving instrument turnaround time, compliance with sterilization standards, reducing surgical site infection rates

10. Among healthcare workers in Government Medical College Hospital wards, what organizational and behavioral factors determine compliance with the WHO 'My 5 Moments for Hand Hygiene' guidelines and what is their effect on hand hygiene compliance rates, healthcare-associated infection rates?

11. In patients eligible for National Health Program services in a Government Medical College Hospital, does a digital Missed Opportunity Surveillance System integrated into routine clinical services, compared with conventional programme monitoring, improve early identification of missed opportunities, inter-program coordination, service utilization, and patient outcomes? (examples for missed oppurtunities- Hypertension or diabetes not screened in eligible adults, TB patients not screened for diabetes or HIV and Pregnant women not screened for anaemia, HIV, hepatitis B, or gestational diabetes).

12. In Government Medical College Hospitals, does implementing a validated Hospital Operational Intelligence Dashboard for real-time monitoring of key hospital performance indicators, compared with conventional reporting mechanisms, improve operational efficiency, resource utilization, quality improvement, and hospital management decisions

13. Does implementing a validated Hospital Readiness Index, compared with existing assessment practices, improve institutional preparedness, programme implementation fidelity, resource utilization, and achievement of National Health Programme indicators.

14. In patients with glaucoma attending tertiary eye care services, does implementing opportunistic screening for non-communicable diseases, compared with routine ophthalmic care, reduce missed opportunities for NCD diagnosis and improve referral and linkage to appropriate care?

15. Among patients with glaucoma attending tertiary eye care services, does implementing opportunistic screening for non-communicable diseases, compared with routine ophthalmic care, reduce missed opportunities for NCD diagnosis and improve referral and linkage to appropriate care?

16. Among elderly patients with hip fractures admitted to Tamil Nadu Government Medical College Hospitals, what patient-, provider-, and health system-related factors influence delays in surgeryand how do these delays affect postoperative complications, length of hospital stay, mortality, and functional outcomes

17. Does the introduction of a structured follow-up surveillance and reminder system to improve follow-up adherence, reduce loss to follow-up, and improve clinical and functional outcomes in patients undergoing fracture surgery in Government Medical College Hospitals?

18. Factors influencing Delays in Diagnosis and Initiation of Treatment among Patients with Ankylosing Spondylitis in Tamil Nadu Government Hospitals

19. Implementing a structured continuum of care model in improving early diagnosis, timely initiation of the treatment, follow-up completion and functional outcomes in children with congenital clubfoot attending Tamil Nadu Government Hospitals

20. To what extent does the implementation of a standardized RED ALERT referral system improve emergency referral performance, reduce delays in obstetric care, and decrease preventable maternal morbidity among pregnant women with obstetric emergencies in tertiary care hospitals compared with routine referral practices over a period of one year?

21. In patients with tuberculosis or diabetes in tertiary care hospitals, does bidirectional screening, compared to standard practice, improve detection rates, linkage to care, and reduce missed diagnoses and preventable complications?

22. Does implementation of a standardized diabetes care management pathway under the NP-NCD programme improve programme performance indicators, including screening coverage, diagnosis rates, treatment initiation, treatment adherence, and glycaemic control among patients attending tertiary care hospitals compared with the pre-implementation period?

23. Implementing an integrated inter-directorate MEDLEEPER online autopsy reporting system to increase the efficiency, quality, accessibility, and interoperability of medico-legal documentation among the Directorate of Medical Education and Research, Health Services, Police Department, Forensic Sciences Department, and Judiciary.

24. What are the barriers and facilitators in the Pharmaco vigilance Programme of India in detecting, reporting, assessing, and preventing adverse drug reactions in tertiary care hospitals, and how do targeted system-strengthening interventions improve programme performance?

25. What operational factors contribute to the wastage of drugs, consumables, and blood products across departments in tertiary care teaching hospitals, and does implementation of targeted inventory management interventions reduce wastage and improve resource utilization over a 12-month period?

26. Feasibility of implementing and patient outcomes following therapeutic nutrition and inpatient care (at DMRHS and DME&R facilities) among very severe undernourished adults with TB at diagnosis following the existing Central TB Division guidelines.

27. Among interns and postgraduate residents in medical colleges under the Directorate of Medical Education and Research (DMER), Tamil Nadu, does participation in the TANQUEST 2-day communication skills training programme, compared with routine orientation or no formal communication skills training, improve patient satisfaction with doctor–patient communication in outpatient departments over a 6-month period?

28. What are the barriers and facilitators in implementation of activities under Medical Education Units established under NMC guidelines in medical colleges under DMER, Tamil Nadu, and does strengthening MEU functions improve faculty development, adoption of competency-based medical education, innovative teaching practices, and student learning outcomes?

29. In medical colleges under DMER, Tamil Nadu, does strengthened implementation of the National Medical Commission Curriculum Implementation Support Program (CISP), compared with the pre-implementation period, improve curriculum alignment, competency-based teaching practices, assessment quality, and student competency attainment?

30. Among teaching hospitals under the Directorate of Medical Education and Research (DMER), Tamil Nadu, does implementation of the MANAM programme aimed at promoting student and faculty mental health and well-being, compared with the pre-implementation period, improve healthcare provider well-being, patient safety culture, patient satisfaction, quality of care, and selected clinical outcomes over a 12-month period?

31. What operational factors influence the successful implementation of the District Residency Programme in Tamil Nadu, and does participation in the programme improve postgraduate trainees' clinical competency, community-oriented practice skills, and preparedness for independent clinical practice compared with conventional training?

32. Mandatory postgraduate bond service policy and specialist workforce availability, equitable deployment, retention, and service delivery in underserved government health facilities in Tamil Nadu

33. In faculty and postgraduate students of government medical colleges, does the implementation of institutional research support mechanisms, compared to colleges or periods without such mechanisms, improve research output in terms of publications, grants, quality, and participation?

34. What are the CT and MRI machine utilization patterns and equipment downtime. Implementing steps to reduce patient waiting time, reduce diagnostic turnaround time, improve service utilization, and overall diagnostic service delivery in medical college hospitals.

35. Implementation gaps in Clinical Establishment Act

36. Implementation gap in PCPNDT Act in districts with low sex ratio

37. DMHP:

(a) Status and extent of assured service delivery at block PHC level
(b) Adherence to the treatment and acceptance by the patients,
(c) Quality and effect of targeted interventions for mental health services.

38. Extent of service delivery and patient outcomes in NPPCD and NPCBVI

39. Incorporating occupational diseases under OH &Sin HMIS 3.0 /developing and maintenance of Electronic Health Record (EHR).

40. Rehabilitative services- patient outcomes

41. Non-Communicable Diseases (NCDs) – Primary health care

a. Among DM/HTN patients registered in Makkalai Thedi Maruthuvam (MTM), how many are retained/controlled at 1yr, 2yrs and 5 yrs. What are the predictors to losses to follow up?
b. Evaluation of the Makkalai Thedi Maruthuvam (MTM) programme in terms of population-based screening coverage and disease control among patients with Diabetes and Hypertension.
c. Association between follow-up adherence and achievement of glycaemic and blood pressure control among patients enrolled under the MTM programme.
d. Equity in utilization of NCD services under the MTM programme across age, sex, geographic location, and socioeconomic groups in Tamil Nadu.
e. District-wise assessment of drug requirement forecasting, availability, and utilization for Diabetes and Hypertension under the National Programme for Prevention and Control of Non-Communicable Diseases (NP-NCD).

42. Maternal Health

a. Assessment of timely antenatal registration and completion of recommended antenatal care services among pregnant women attending Primary Health Centres.
b. Compliance with recommended antenatal investigations under routine maternal health services in Tamil Nadu.
c. Operational evaluation of utilization of Integrated Early Life Services (IELS) among pregnant women attending government health facilities.
d. Operational assessment of the effectiveness of empanelled facilities in providing comprehensive antenatal care services under government programmes.
e. What proportion of pregnant women getting AN care in PHCs are benefitted from IELS (TSH testing) and use of government facilities for AN scan/ECHO?
f. Out-of-pocket expenditure on antenatal ultrasound scan services among pregnant women receiving antenatal care in government health facilities in Tamil Nadu.

43. RBSK

a. Operational assessment of referral completion and treatment outcomes among children identified under the Rashtriya Bal Swasthya Karyakram (RBSK).

b. Factors influencing treatment completion among children diagnosed through the Rashtriya Bal Swasthya Karyakram (RBSK).
c. Operational assessment of follow-up mechanisms for children requiring tertiary care under the Rashtriya Bal Swasthya Karyakram (RBSK).

44. Immunization

a. Assessment of factors contributing to zero-dose and partially immunized children in Tamil Nadu.
b. Evaluation of immunization continuity among migrant populations using the UWIN platform.
c. Assessment of vaccine wastage and associated programme factors across districts in Tamil Nadu.
d. Evaluation of missed opportunities for vaccination among children attending government health facilities.
e. Operational gap analysis of urban immunization services in Tamil Nadu.
f. GIS-based operational mapping of vaccine-preventable diseases, immunization dropouts, and zero-dose children for programme planning.
g. Assess protective VPD immunoglobulins at 6-9 months of AN period among pregnant mothers.

45. Universal Health Coverage/ Primary Health Care

a. Assessment of the twelve comprehensive services provided through Health and Wellness Centres under Universal Health Coverage.
b. Digital health initiatives and its role in ensuring continuity of care across public health programmes.
c. Operational evaluation of HMIS 3.0 implementation on service utilization and reporting efficiency in pilot districts of Tamil Nadu.
d. Time-motion study to evaluate workflow efficiency following implementation of HMIS 3.0 in Primary Health Centres of Tamil Nadu.
e. Assessment of data quality across HMIS, UWIN, PICME, IHIP, and MTM databases.
f. Assessment of data duplication and reporting burden due to multiple digital health information systems in the public health sector of Tamil Nadu.
g. Development of a District-level Public Health Performance Index using routine programme indicators for programme monitoring.
h. Feasibility of community engagement to support (complement/ supplement) ongoing health initiatives of Tamil Nadu (operational research building on the gains made under *Tamizhaga Grama Nalam Kappom Thittam* TGNKT)

46. Digital Health and AI

a. Operational feasibility and acceptability of AI-enabled chatbots for nutrition counselling and follow-up among patients with Diabetes.
b. Operational assessment of the content validation, usability, adoption, and user satisfaction of digital public health applications implemented in Tamil Nadu.
c. Feasibility of implementing QR based/AI chat bot for patient registration system for efficient patient care in PHCs

47. Barriers and facilitators of HPV implementation in Tamil Nadu: school-based vaccination vs facility-based vaccination, poor performing districts vs good performing.

48. Registering and measuring continuum of care up to clinical outcome among <5-year-old children diagnosed with diarrhoea, pneumonia, sepsis, anaemia and ear infection at PHCs and Health Subcentres.

49. Linkage to NCD care medical college to PHC: How well are people diagnosed with diabetes and hypertension linked to PHCs for registration/ treatment continuation?

50. Feasibility of implementing TNKET 2.0: Existing triaging at diagnosis under TNKET based on BMI, pedal edema, respiratory rate, oxygen saturation, ability to stand without support PLUS cFBG (if TB-DM) and Liver Function tests (if notified from secondary/ tertiary health care facilities.

51. Operational research around detecting the missing TB and early case detection

a. Feasibility and yield of implementing systematic passive case finding for TB in primary health centres of Tamil Nadu

b. Identification and acting upon the missed opportunities of TB diagnosis in public and private healthcare facilities of Tamil Nadu

52. Which operational bottlenecks contribute most to response time delays (EMS-108)?

53. Challenges in TAEI implementation:-
(a) Are Standard Operating Procedures uniformly implemented across hospitals stratified by level of care?
(b) How do they influence trauma outcomes and hospital performance (before and after)?

54. Does ambulance pre- arrival notification reduce door-to-needle time (Acute CVS/CVA)?

55. Effectiveness of Pre-arrival notification on Hospital Preparedness

56. How does Traffic Congestion affect Emergency Medical Service (EMS) Response Time?

57. How can GIS-based ambulance deployment improve emergency coverage?

58. Does CMCHIS reduce inequity (by income, rural/urban) in access to tertiary healthcare services (primary data)?

59. What factors (including electronic claim processing, pre authorization) contribute to delays in treatment/CMCHIS claim settlement?

60. To what extent does CMCHIS reduce out-of-pocket expenditure among hospitalized patients (primary data)?

61. Readmission rates among CMCHIS beneficiaries.

62. Predictors of delayed definitive care under NK 48 beneficiaries

63. Does CMCHIS improve access to specialized healthcare services in government hospitals?

64. How efficiently are CMCHIS packages utilized across government hospitals?