Government of Tamil Nadu

Health & Family Welfare Department

TAmil Nadu Quality Enhanced Structured Training (TAN - QuEST)

TNHSRP
Access, Equity, Quality

Tamil Nadu Health System Reform Program
(Program for Results supported by World Bank)

WORLD BANK

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Government of Tamil Nadu

Department of Health and Family Welfare

Tamil Nadu Quality Enhancing Structured Training

TAN-QuEST

“Right Persons at the right time with the right skills & attitudes”

STRATEGY DOCUMENT

A Program to provide sustained comprehensive professional development through standardized training Modules.

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1. Introduction

1.1. The State: Tamil Nadu Health System encompasses a large workforce of 18000 doctors and more than 50000 nursing and other paramedical personnel. This large workforce is the backbone of Tamil Nadu's achievements made so far in the health sector. This team as a cohesive unit has been at the forefront of reducing maternal and infant mortality rates, achieve immunization and family welfare goals and providing a streamlined highly efficient primary, secondary and tertiary care services. The poorer and disadvantaged sections of our diverse population have been able to achieve economic and social equity in the last few decades due to the big contribution of the health system in reducing out of pocket expenditure and ensuring no cost emergency medical care. India as a welfare state, the health system is responsible to provide a standardized quality of health care with significant emphasis on patient rights, equitable opportunity of care, improved patient experience and a service grounded on principles of ethics and empathy. The three requirements for achieving this aforesaid benchmark requires quality infrastructure, quality Human Resources for Health (HRH), quality organizational structures and quality processes. The quality of HRH contributions to a health system depends on:

- Continued Capacity Building in key areas of patient care.
- Aligning HRH value systems with patients' rights and ethics.
- sustaining human resource quality by providing them adequate opportunities to upgrade their knowledge and skills.
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1.2. The Goal: This enshrines that HumanResource for Health (HRH) should be encouraged and incentivized to

- Perform utilizing their full potential – to become health leaders in their domain.
- Upscale and update their knowledge and skills as per new standards, methods and technology.
- Deliver all services in compliance to existing National and State regulations.

Adopt a patient centric approach in all professional activities and demonstrate high level of sensitivity to patient and public needs .**1.3. To achieve this goal**, alongside the effort to improve the quality of infrastructure, investment on achieving quality of the human resource, is proposed under the Tamil Nadu Health System Reforms Project as a single comprehensive intervention under the Quality of Care strategy titled "***Tamil Nadu Quality Enhancing Structured Training (TAN-QuEST)"***

Case Study 1:

A mass casualty due to a Bus accident on a National Highway brings in 34 grievously injured persons to the nearest accident and emergency centre (TAEI). The patients are hauled out of the ambulances into the arrival area, and attended by the interns, postgraduates, consultants', nurses, paramedics all in one large team. Some need to have airway, some need arrest of bleed, some need stabilization of fractures, some need fluid or transfusion assistance. Every one of the by-stander is shouting at the health provider team, press people have already barged in and are taking photographs, the lobby is overflowing. An intern is shouting at the bystanders to allow him space to push a gurney into the red zone, a nurse is seen running into the crowd with an ambu bag, and finally an intern is trying to push through the crowd with a fluid pack to help the persons on the stretcher. The nurse gets pushed down, and she gets angry at the bystander asking him to leave the space. A scuffle ensues...rest becomes history.

This is just a one of the issue and the hospital staff having a difficult day need specific training to overcome i.e. knowledge and skills training on emergency protocols, emergency room management, regulatory laws governing emergency room activity, ethics-attitudes-communication, administrative and management skills needed to handle the bystanders in the emergency room. Paramedics need clinical skills to perform basic life support, PR work, triaging, medico-legal law, grief counselling, health insurance and handling press and media, bio-medical waste disposal etc. and amidst all this mayhem to maintain calm and composure both physically and mentally and to handle the crisis. This needs leadership and soft skills. This is a real time example for training needs in all accident and emergency units.

2. Current Scenario & Situational Analysis

2.1. The Baseline: The Tamil Nadu Health System is one of the best in India and has always been at the forefront of innovations and performance-based reformation of the system.

Table 1: Tamil Nadu Public Sector Health Facilities

Type of Health Facility	Number
Primary health care	
Community health centres (CHCs)	422
Primary Health Centres (PHCs)	1807
Health subcentre (HSCs)	8713
Urban Primary Health Centres	460
Urban Community Health Centres	15
School Health Teams	805
Mobile Health Teams	416
Secondary care	
Taluk and non-taluk hospitals	273
District Hospitals	29
Tertiary care	
Medical Colleges	24
Hospitals attached to Medical Colleges	50
Multi-speciality hospital	1
Dental college and hospital	1

The performance of the health system is best documented in our implementation of the various schemes like the Family Welfare, Maternal and Child Health programs, NCD control program, Tamil Nadu Accident and Emergency Care Initiatives. As a cohesive unit, the Tamil Nadu Health Systems has one of the biggest and best HRH.

The human resource is placed at various levels both in the Public and Private sectors and in different cadres with varied levels of training and expertise. The public health system handles on every passing day 15,00,000 outpatients, 1,25,000 indoor admissions, 5000 surgeries both major and minor, 3500 parturition medical assistance, 1,00,000 radiological and laboratory tests (2018).

Table 2: Performance Data under various Directorates (April 2018- May 2019)

Institution	OPD	IP Admission	Surgeries	Deliveries
DME	31,611,674	11493903	1050343	180498
DMS	87845280	8417995	232032	186480
DPH	131690714	2582810	71287	141553

Tamil Nadu's health system aims at providing these services silver lined with a collective human touch and the State has clear administrative and progressive vision which drives for greater reforms towards further improving quality in service delivery.

2.2The System: The Tamil Nadu Health System has two major components both which are vibrant and well-functioning namely the Public and Private systems.

2.2.1Public Health System: The public health care has a large workforce who are recruited into the service by the Medical Services Recruitment Board following strict regulations and government statutes. The system is further governed by an institutionalized mechanism of promotions and transfers which is operated by the Directorates under the Health &Family Welfare Department. The various training programs currently existing include:

- **System Driven Training:** The training provided or mandated are specific program-based training conducted by the Regional Training Centres, Health Institutions, District level Training Teams and at the State level(MCH training, Family welfare training, Administrative training for new recruits, Immunization training, PPIUCD training, LS Sterilization training, Biomedical waste management training, trauma care training etc.). One of the major gaps in these training programs is that they are less structured and don't have in-built quality check mechanisms.

- **Personal Driven Training:** The person on their personal capacity strive to improve their career and profession through acquiring higher

degrees from the point of entry, acquire new skills or new knowledge through continuing medical education sessions or workshops conducted by the institutions especially medical colleges, private professional bodies and international agencies. These training programs have definite content and ensured objectives. *But here these sessions are personal driven or professional advancement driven. Many of these sessions do not have measures of outcome or ensure quality improvement objectives.*

- **Industry Driven Training:** This type of training is based on the doctors in non-government settings in most cases. The public health system does not encourage this indulgence, but the present environment is dominated by such training sessions which comprise conferences and Continuous Medical Education (CME) programmes. The conduct of CME or training sessions are resource intense and hence needs a financing system which is hitherto relegated to few scientific organizations like the MCI, ICMR, DST, University etc. who do not fund the entire proceedings, nor do they fund all trainings as these organizations' have their set priorities'.

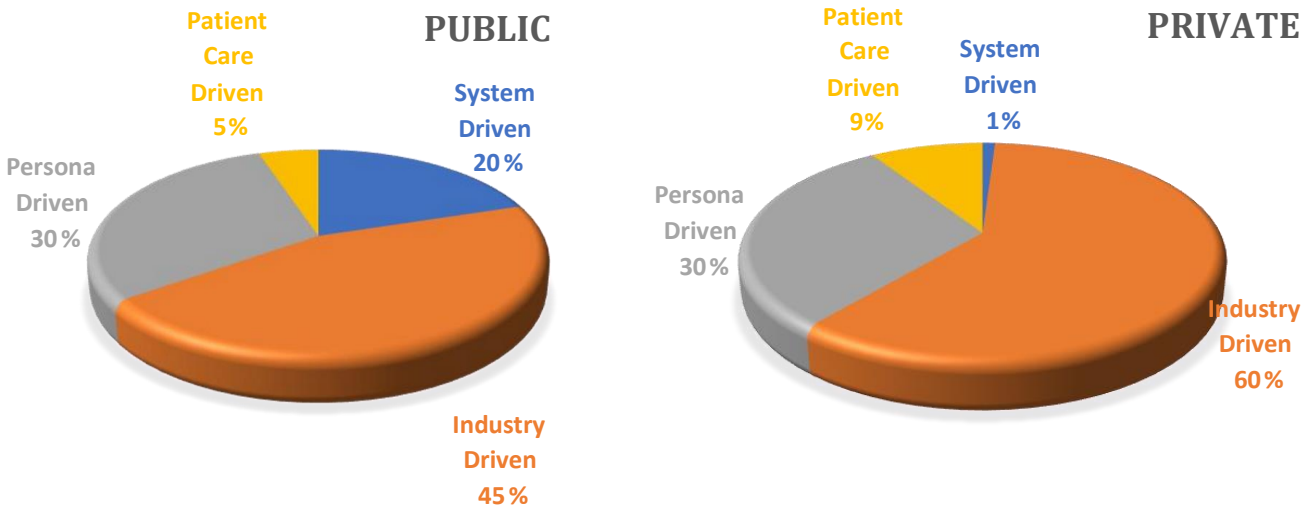
This list is long and needs lots of effort in bridging the gap. Most of the training whether it is system driven or individual driven focussed on few areas of patient care and needs to be more structured, uniform and comprehensive in the current changing health sector scenario. More impetus also needs to be given for training nurses, para medics and supportive staff for providing quality comprehensive healthcare uniformly across all institutions.

2.2.2. Private Health System: The public health care has similar a large workforce who enter the service by local recruitments driven by need and revenue models of the hospital and handled by the administration of each. This is the same for doctors, nurses and other paramedics. Even after the implementation of the Clinical Establishments Act, it is quite difficult to ensure quality mechanisms across the diverse private healthcare sectors. The training and skill enhancement among the private sector personnel are pursued as a requirement for accreditation process and are neither uniform norcomprehensive.

Similarly, in the private sector as in the public sector, most of the training happens is in the context of doctors. The nurses and paramedics undergo training on their own preferences to satisfy job requirements.

Training components in Public and Private: Though accurate estimates are not available the tabulation of the training patterns of the public and private health system is given below based on approximate estimates.

Figure 1: Distribution of Trainings in the Public and Private Sector



Source: Based on stakeholder consultations

In this training milieu, both in the public and private sectors, the patient requirements and patient rights are inadequately addressed and hence may not have a sustaining effect on the quality of care.

2.3. The Governance of Training: The current scenario in the state has 2 accreditation agencies.

(1) **The Tamil Nadu Medical Council:** This agency provides an online accreditation and pre-session credit rating for all applicant conferences, CMEs' and workshops

at a rate of 1 credit for every 4 hours of training. The only data required for the pre-session rating is institutional data, data of sessions and resource persons. The certification process of the participants is based on the attendance of the participants. These credit points are also essential requirements for the re-registration of doctors which is being proposed currently.

(2) **The Tamil Nadu Dr.MGR Medical University:** This agency provides an online accreditation and pre-session credit rating for all applicant conferences, CMEs' and workshops at a rate of 1 credit for every 4 hours of training. The only data required for the pre-session rating is institutional data, data of sessions and resource persons. The certification process of the participants is based on the attendance of the participants.

2.4. The Assessment of Training: The assessment leads to the certification process of the participants and is currently based on the attendance of the participants. The major gaps in these trainings' assessment patterns are

- No data is gathered on the delivery of the rated content namely – the specific learning objectives (SLO) of the sessions, the teaching learning methods (TLM) used and whether the SLO and TLM match for the required training objective.

- Lack of a valid pre and post session assessment and use of statistical models to assess the change of knowledge, skill, or attitude from pre-session to post session of the participants.

- Lack of systems in place to gauge and assess delegate interaction during the training to encourage active learning.

- Lack of adequate feedback mechanisms to enhance and change future training sessions positively.

3. Proposed Concept: TAN-QuEST

3.1. This policy framework recognizes the importance of:

- ✓ *an in-service Health Care Provider Training and Professional Development programme*
- ✓ *a holistic governance structure for health care provider training and professional development.*
- ✓ *A structured capacity building program that augments existing training*
- ✓ *Building administrative, managerial and clinical competencies among human resource for health.*

3.2. Vision Statement

"TAN-QuEST will enhance the professional competencies, work satisfaction and morale of the workforce of all human resource for health through a comprehensive training approach which will improve the quality of care.

3.3. Objective and Aims:

The stated objective of this program is to provide impetus to adopt best practices in public and private health facilities, and to provide greater fillip to professionalism of Human Resources for Health (HRH). It will be an effort that will be self-sustaining and innate to the health systems. This will also be a positive incentivization for the HRH for career advancement.

The specific aims of this program include:

- To sensitize health provider team about new concepts in receiving, examining, diagnosing, treating, prognosticating and providing follow-up services to patients in consonance of our goal of providing quality health care to the last mile user of this state of Tamil Nadu.

- To ensure development of essential knowledge and clinical skills required for performing the role of a competent and effective stakeholder in the health provider team.

- To ensure that the team understands and acquire competency in communication and behavioural skills, and update their knowledge using modern information and research methodology tools.

3.4. Guiding Principles:

- Comprehensive, structured and multi-disciplinary approach.
- Job oriented hands-on training to skills.
- Multi modal approach to upgrade knowledge.
- Continuum of healthcare training appropriate to the job role.
- Minimum training package to all health staffs.
- Aligned to health reforms initiatives in Tamil Nadu Quality of Care(QoC) Strategy 2020.
- Promote diversity of programs and accredited training providers.
- Strengthen regulations and institutional arrangements for training.
- Grounded in adult learning principles .
- Address the needs for both individual and team learning .

A structured Health Care Provider Training and Professional Development program, which will build on the strengths and cover the gaps in expertise of the workforce, and modernize the operational efficiency of the individual stakeholder of the health care providers on the ground. It is evident that over and above the existing training avenues the health system (public and private) uniformly needs well defined areas of capacity building which are usually not part of the speciality training and other training presently available addressing all areas of knowledge and skills.

The Medical services is a reflection or a reminder of the quality of the training its human resources. Medical Services requires a committed, quality conscious and ethically driven doctors, nurses and paramedics. The proposed professional development program is expected to propel a paradigm shift in QUALITY through change in the attitudes of the stakeholders and instil the attitude of knowledge and

skill seeking, in contrast to training per-force in upgrading their skills and knowledge. Globally, Continuous Professional Development (CPD) programs have evolved in the last 20 years in terms of contents, formats and implementation approaches. CPD activities are now more interactive than before, giving learners the opportunity to bring their personal experience into the activity and ensure their educational needs are being met. Activities are more often focused on clinical experience, including cases, simulations, and real-world examples, to provide greater relevance to the learners' daily work. Even evaluations have evolved, allowing learners to provide more comprehensive feedback in order to influence future activities. Tamil Nadu needs to take into account such global best practices in TAN-QuEST. The present proposal is envisaged in consonance of the patient needs, objectives of the Medical Council of India and goals of the Government of Tamil Nadu in terms of quality of health care and assurance of the rights of the citizens.

3.5. Framework:

It is proposed herein-under to create a policy framework that is intended for the Tamil Nadu Health System to build the capacity of health care providers in the public and private units as follows

- A policy framework that recognizes the importance of in-service Health Care Provider professional development. This framework shall recognize the need for such professional development, essentiality to provide such training for all cadres of health care providers namely doctors, nurses, technicians, health care staff and all other stakeholders of the health system.

- A holistic governance structure for health care provider professional development that mandates, builds capacity, monitors, assesses, receives feedback and provides course correction. This governance structure shall involve the Government, Department of Health and Family Welfare, Directorates of Medical Services, Education and Public Health, The TN Dr MGR Medical University, Tamil Nadu Medical Council, District Health System represented by the Government Medical College (GMC) and other hospitals (including public and private).

- This governance framework will provide for administrative instruments for legislation, administrative sanctions, implementation guidelines and framework, quality assurance of the program, accreditation and certification of the program and participation based on outcome assessment and shall support career advancement and re-registration processes that shall be introduced by the national and state registration bodies (various health care professional councils like TNMC, TNNC, TNDC etc.).

- A structured capacity building program that augments existing training programs and systems and creates training for competencies, knowledge, skills, attitudes, ethics and communication, using global best practices such as use of adult learning techniques, team based learning, e-learning and other digital technologies and technology applications and will provide impetus to adopting best practices in all public and private health facilities. The effort needs to be self-sustaining to become an innate process in both the private and public health systems and to provide greater fillip to professionalism of the human resource in both settings.

- A standardized scientific incentive system to ensure administrative compliance for implementing the professional development training, ensuring career advancement and enhancement of quality by capacity building of the health care workforce individually and severally, through tied funding mechanism(s), institutional rating(s) and recognition(s) and appreciation(s) of performance.

4. TAN-QuEST- Health Care Provider Professional Development and Capacity Building

Content Prototype

TAN-QuEST shall be vested with the responsibility of creating a quality inventory of training required for each of the human resource to meet the present and future needs of service delivery. TAN-QuEST shall have strong linkages to health reform priorities/initiatives laid out in the TN health policy and QoC strategy including the integration of milestones for quality improvement. TAN-QuEST shell structure, pilot test, validate and implement a compendium of minimum training package for health staff and optional professional development training modules to capacity build the state health system towards reaching the standards of quality of care that is aimed to be achieved across the primary, secondary, tertiary and quaternary establishments of the state. TAN-QuEST shall be grounded in adult learning principles, augment learning through individual and team learning, promote diversity of programs and accredited training providers.

The major segmentations of capacity building shall be

4.1. Technology and Techniques: An array of newer and improved versions of patient management is being put in place by the Tamil Nadu Health System (Private and Public). Knowledge and skills related to patient management are to be learned by the workforce. The component will be sustainable, resource prudent, prioritized and structured and ensure augmented essential knowledge and professional skills. This segment will also implement training for development of competencies in attitudes, ethics and communication. Example: Basic Life Support, Good Clinical /Lab Practices, Teamwork, Patients & Ethics, Advanced Life Support, Research Methodology

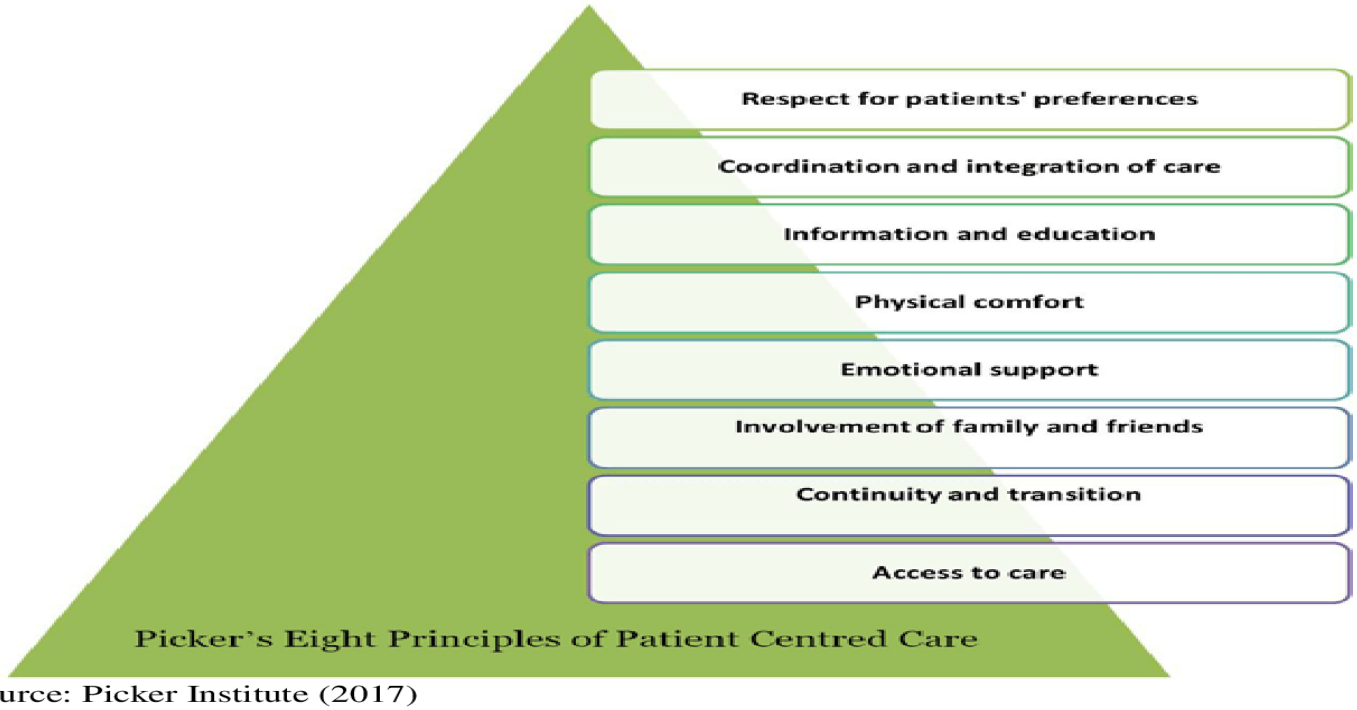
4.2. Training on best practices: A compendium of best practices will be prepared, and each district/facility will be trained to adopt some of them or any of them for operationalization. The training shall ensure understanding of the needs for institutionalization of best practices in all facilities and enhance professionalism, work satisfaction and morale of the workforce. These best practices shall also be a big opportunity for better clinical governance.

A few templates are given herein-under

- *Hospital Nightingale*: A team of nurses will be trained to go around non admitting wards, in every unit 24x7 and make an inventory of the needy patients and report directly to the concerned treating doctor / unit doctor and ensure safety of these sick patients.

- *Hospital Relationship Manager:* A team of trained junior doctors/nurses/paramedical staff who will step in wherever needed and facilitate difficult conversations between patients, bystanders and health care providers.
- *Hospital Adverse Event Board*: This will be a team of trained doctors, nurses and paramedical staff who will review all adverse medical events involving medical professionals, nursing professionals and paramedics and will conduct hospital safety audits and report where the hospital stands on reporting errors.
- *Triage Armbands*: Patient risk levels colour-code armbands for bedside identification of triage.
- *District Medication Reconciliation Board*: Departments of Pharmacology in a district and the large team of doctors and pharmacists can converge to make a medication reconciliation with a focus on OPD and Indoor antibiotic use, discharge medication and take away drugs in OPD .
- *Code Sepsis*: In ER and ICU supports early identification of the disease and provision of standardized treatment. The list will be populated during implementation. The health providers will be trained on existing and system developed best practices and will be capacity built to develop area or region-specific best practice initiatives.

4.3. Training in Patient-centeredskills: Based on Picker's Eight Principles of patient-centered care, the module emphasis on the practice of caring for patients and their families in ways that are meaningful and valuable. This includes listening to, informing and involving.



Source: Picker Institute (2017)

Figure 2:Principles of Patient-centered Care

The Picker's Eight Principles of patient centered care have been used as the basis of the following proposals:

Respect for patients' values, preferences and expressed needs: Involve patients in decision-making, recognizing they have unique values and preferences. Treat patients with dignity, respect and sensitivity to his/her cultural values and autonomy.

Coordination and integration of care: To alleviate patients feeling of vulnerability and powerlessness in the face of illness by coordination of clinical care, coordination of ancillary and support services and coordination of front-line patient care.

Patient information and education: Allay their worries that they were not being completely informed about their condition or prognosis through three kinds of communication - information on clinical status, progress and prognosis, information on processes of care, info to facilitate autonomy, self-care and health promotion.

Patient comfort: The level of physical comfort patients report has a significant impact on their experience. Three areas were reported as particularly important to patients - pain management, assistance with activities and daily living needs, hospital surroundings and environment.

Emotional support and alleviation of fear and anxiety: Fear and anxiety associated with illness can be as debilitating as the physical effects. Caregivers should pay particular attention to:anxiety over physical status, treatment and prognosis, anxiety over the impact of the illness on themselves and family, anxiety over the financial impact of illness.

Involvement of family and friends: This principle addresses the role of family and friends in the patient experience. Family dimensions of patient-centered care were identified as follows: providing accommodations for family and friends, involving family and friends in decision-making, supporting family members as caregivers.

Recognizing the needs of family and friends on continuity and transition: Patients expressed concern about their ability to care for themselves after discharge. Meeting patient needs in this area requires the following: Understandable, detailed information regarding medications, physical limitations, dietary needs, etc., coordinate and plan ongoing treatment and services after discharge, provide information regarding access to clinical, social, physical and financial support on a continuing basis.

4.4 Training in Management and leadership skills: This will include training both online and hands on in various aspects of management like Negotiation Skills, Crisis Management, Work-life balance, Planning and goal setting, Supportive supervision and mentoring, Organizational Analysis, Operations Research, NABH and NABL Accreditation, Change Management.

4.5 Training in Newer and Essential Technologies: Training in newer technologies and newer knowledge are catered to health staff by the professional associations. Hence, the Capacity Building (CB) will only include the following like Basic Research methodology, Good Clinical and Laboratory Practices, Bioethics, Basics of Biostatistics, Application of Computational techniques in patient and health care

4.6. Methods: The best practices in TAN-QuESTwould be the application of adult learning principles in the design, planning, implementation, and assessment as described in Table 3. TAN-QuEST will be a technology centred, personalized learning process and will adopt all modern learning techniques. The training modules would focus on not just lecture-based, didactic sessions but would include other methods such as e-TAN-QuEST ,an online Massive Open Online Courses (MOOC) portal, hands-on training, skills lab and simulation sessions, participation in collaborative endeavours, performance improvement projects (learning-by-doing) and team-based modules.

Table 3: Adult Learning Methods

Adult Learning Theory	Teaching Methods in TAN-QuEST
Autonomous and self-directed	Small-group and team-based activities
Interpret knowledge based on past life experiences and personal needs	Problem-based learning: successive unfolding of a case, with self-directed learning and repeated group discussions
Relevant and goal-oriented	Case-based learning: single discussion of complex case or problem sets
Active, constructive process	Learning communities of faculty and students
Self-reflective	Simulation technology, computer-based instruction and frequent assessments
Social: learning occurs during discussions when knowledge is challenged	Flipped classrooms: lecture and reading at home coupled with team-based learning

Source: Educational innovations in academic medicine and environmental trends. Irby, David M, Wilkerson, L. JGIM 2003 vol 18,5:370-376

This also means a shift beyond an attendance system to a new system that uses improved competence/performance as a metrics. The evaluation will go beyond attendance or time-based credit system to a proposed comprehensive graded point average system (CGPA) which may have weighted averages for attendance, completion, interaction, quiz, project submission and certification exam. The requirementsin terms of infrastructure is minimal. Modules and organizing the learning process requires a significant effort like preparation of validated modules, trained faculty resource persons, university validation, operationalize online MOOC Portal, modern training centres with enlisted facilities in each Government Medical College including AV aids, skills lab, computer and bioinformatics training units, assessment portal in university etc.

The training modules will be classified as

1) **Classroom Training:** Minimum training package and optional packages will be made as modules. All trainers will be given appropriate additional training to impart these modules.

2) **Hands-on Training**: The validated training modules will be conducted in the Government Medical Colleges, Government Hospital and Training Institutes. Existing skills' lab of Regional training institutes and Simulation labs under TAEI may be linked for providing hands-on training. Additional support from National and International organizations may strengthen the training resources.

3) **Tele mentoring**
    a. **Webinars:** Lectures on identified modules will be conducted as webinars where the health staff will enrol and receive the understanding on the topics. It may be combined with evaluations, assignments and certifications.
    b. **Case presentations:** Health staff including super specialist will participate in the training sessions like Extension for Community Healthcare Outcomes (ECHO). This will be different from traditional training by multi-directional interactions on patient management experiences.

4) **Online Courses** through e-TAN-QuEST web portal (in line of Swayam / Coursera/ MOOC portals) a self-learning portal for health staff. These courses will have a rolling registration with course units and project submission to obtain a certification. The final certification examination will be conducted every quarterly at the Government Medical College near home as a computer-based test. The process of the course and assessment will be conducted by the University. Each such certificate will be recorded in service register.

The Department of Health and Family Welfare, Government of Tamil Nadu, The Tamil Nadu Dr MGR Medical University and Government Medical Colleges in each district would ensure the implementation of the three pillars of the TAN-QuEST (Figure 3).

5. Regulatory Framework & Institutional Arrangements

5.1. Regulatory Framework:

The regulatory framework for TAN-QUEST would include the following improvements to the existing regulatory framework in the Department of Health and Family Welfare

i. To order the Administrative Sanction of the process named Tamil Nadu Quality Enhancing Structured Training (TAN-QuEST) as a service provision, with specific deliverables namely roles and responsibilities of the implementer, trainer and assessor, officers in-charge of implementation, training and assessment in each of the organizations, roles and responsibilities of the officers,

   methods of training, session settings and financial operation of training, eligibility for higher training outside the system and eligibility for selection for awards and recognitions.

ii. Directorate orders for operationalization of the Government Orders (GO)aforementioned with the working document of the TAN-QuEST as proposed and ratified.

iii. University Orders for operationalization of the training namely validated training modules, validated trainers and validated assessment instruments, validated certification guidelines.

iv. Governmental Order for training cell to be formed at Directorate of Medical Education which will take care of training for doctors, nurses, and paramedical staff.

v. Governmental Order for funds to be released towards this training cell and its activities to be coordinated by the TNHSRP

5.2. Tamil Nadu State Policy Framework :

TNHSRP - QoC shall mention TAN-QuEST frameworks - HCBTAF &HCBTCBF as priority interventions.

- ✓ The Tamil Nadu Dr MGR Medical University and deemed universities with medical, dental, nursing and other allied professional institutions shall be consulted to encourage TAN-QuEST training.
- ✓ TamilNadu Medical Council shall be consulted to recognize TAN-QuEST training as credits for professional development.
- ✓ Tamil Nadu Dental Council shall be consulted to recognize TAN-QuEST training as credits for professional development.
- ✓ Tamil Nadu Nursing Council shall be consulted to recognize TAN-QuEST training as credits for professional development.
- ✓ Tamil Nadu Physiotherapy Council shall be consulted to recognize TAN-QuEST training as credits for professional development.
- ✓ Tamil Nadu Pharmacy Council shall be consulted to recognize TAN-QuEST training as credits for professional development.
- ✓ Tamil Nadu Paramedical Board and similar organizations concerned with the paramedical learning and skills training shall be consulted to recognize TAN-QuEST training as credits for professional development.

5.3. TAN-QuESTHealth Care Provider Training, Capacity Building and Professional Development Augmentation Framework

- ✓ Provisions on Intra-and Post-sessional assessment with The Tamil Nadu Dr MGR Medical University
- ✓ Provisions for training completion reporting to TNMC by The TN Dr MGR Medical University
- ✓ Provisions for training status monitoring by State, Directorates, District and Facility level Officers

- ✓ Provision on reporting by Healthcare Provider on attending and permissions and certifications
- ✓ Provisions on Intra and Post-sessional assessment with The TN Dr MGR Medical University or Other Deemed Universities
- ✓ Provisions on training reporting to TNMC by The TN Dr MGR Medical University or other deemed universities
- ✓ Provisions on training documentation by Hospitals, Nursing homes, clinics and authorised professional bodies like IMA, API, IAP, FOGSI, and similar associations for other cadres etc
- ✓ Provision on reporting by Healthcare Provider on attending and permissions and certifications there on.

5.4. TAN-QuEST Health Care Provider Training Capacity Building Framework :

- ✓ Administrative Provisions for combined minimum training packages for all stakeholders (Public and Private)
- ✓ Administrative Provisions for combined optional training modules for all stakeholders (Public and Private)
- ✓ Administrative Provisions for District training centres in Government Medical College where available or Private MC/GHQH
- ✓ Administrative Provisions for District Coordination Committee for TAN-QuEST to implement TAN-QuEST
- ✓ Administrative Provisions for e-TAN-QuEST portal as a Base for delivery of training
- ✓ Administrative Provisions for Assessment - Methods, Modalities, Monitoring Registration and Documentation.
- ✓ Administrative Provisions for Financial and Non-Financial Incentives - Districts, Facilities and Individuals in Public and Private like awards and recognition, special leave for higher academic pursuits, reimbursements for trainings attended, exchange programmes and similar mechanisms to be tried out in the future.

5. 5. Implementation Framework:

The policy as proposed shall be implemented in six phases with 3 separate implementation linked outcome indicators. The six phases shall be as follows:

Phase 1: Legislation Provision of Policy Framework, TAN-QuEST Health Care Provider Training Augmentation Framework an TAN-QuEST Health Care Provider Training Capacity Building Framework

Phase 2: Implementation of Administrative framework asprovisioned for in the TAN-QuEST Health Care Provider Training, Capacity Building and Professional Development Framework, Training and Course Correction.

Phase 3: TAN-QuEST Health Care Provider Training, Capacity Building and Professional Development - Govt Health System, Preparation of TAN-QuEST MOOC portal, Preparation and validation of learning modules, Preparation of Online registry system for participation, Training and Brainstorming for Resource persons, Preparation of TNMC accreditation forms and brochures, Preparation of The Tamil Nadu MGR Medical University Assessment modules and brochures, Preparation of Institutions (Government Medical College) for district professional development units, Preparation of training schedules, assessment schedules, accreditation schedules and circulation of schedules, Goal setting and preparation of development / implementation GANTT charts.

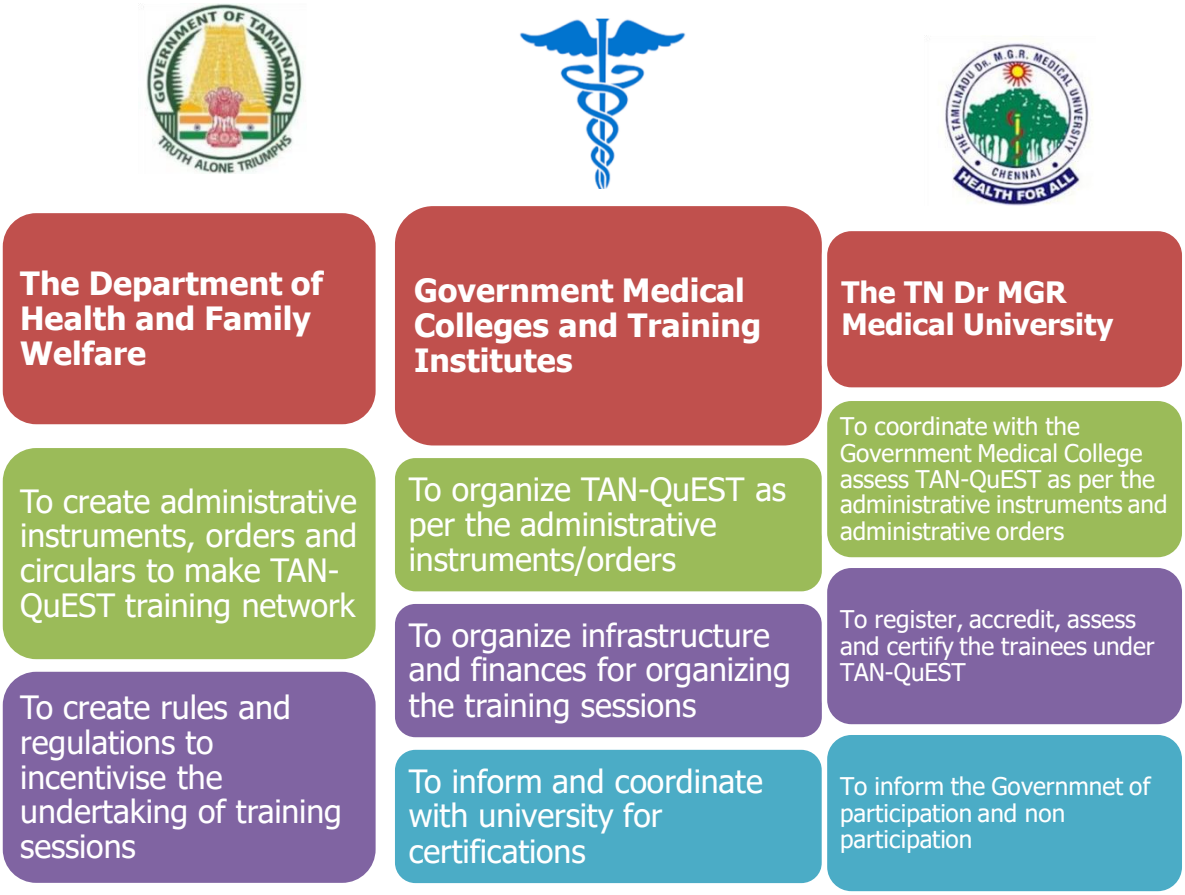
Phase 4: Implementation of TAN-QuEST Health Care Provider Training Capacity Building for Government Health System, Implementation, Monitoring, Audit and Feedback Course Correction and Impact assessment. A transparent virtual queue mechanism for ensuring equal opportunity for all cadres will be developed and tested. This will encourage every individual to pursue training, at the place and time of their choice, without prejudice of their seniority.

Phase 5: Implementation of TAN-QuEST Health Care Provider Training Augmentation, Preparatory assessment, Implementation, Monitoring, Audit and Feedback, Course Correction and Impact assessment.

Phase 6: Based on the experience of rolling of TAN-QuESTin the public sector health facilities, partnerships with the private sector would be initiated to implement TAN-QuEST in selected private health facilities in a phased manner. Over a time period of ten years, it is envisaged that TAN-QuESTwould encompass the entire health system in Tamil Nadu.

5.6. The Training Modules

The training modules will be provided as minimum training package to healthcare provider and optional training package for professional development.



6. Monitoring Framework

TAN-QuEST aims at becoming a model in-service professional development programme for health care providers. The results chain and the indicator matrix for this programme are described below. The monitoring framework will include indicators in Tamil Nadu's Quality of Care Strategy, including scorecards at different levels of facilities. In addition, it will include additional indicators on quality of care as well as on regulatory reforms, institutional arrangements, provider knowledge, skills, motivation and satisfaction.

Figure 4: Results Chain for TAN-QuEST:

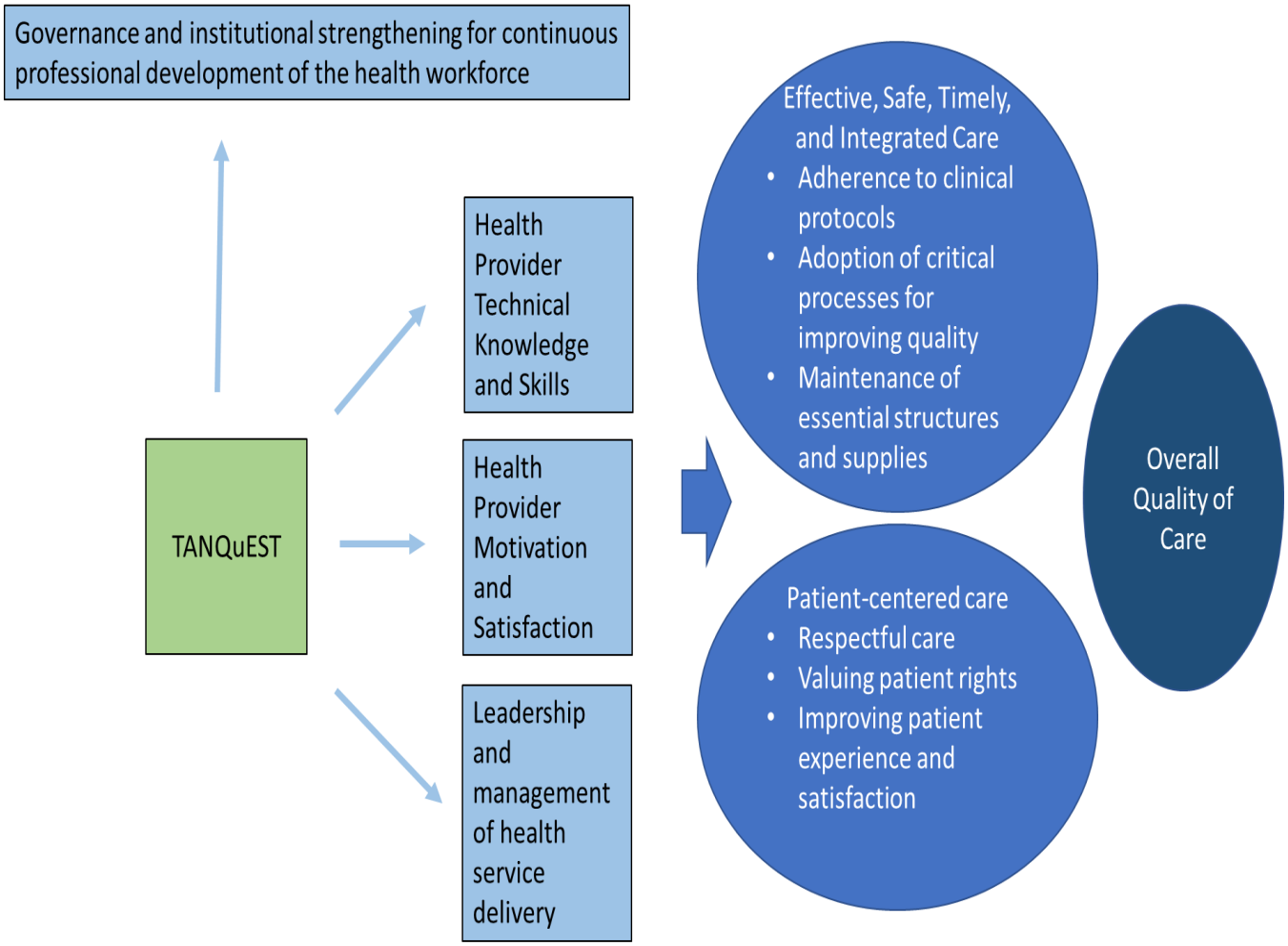


Table 4: Indicator Matrix:

Level		Indicator	Frequency	Type of Data	Responsible Agency for Collating Data
State	1	Number of Government Orders signed for acceptance of TAN-QuEST	One-time	Quantitative	TNHSRP
	2	Number of Memorandum of Understanding signed between Directorate of Medical Education and Public and Private Facilities for acceptance of TAN-QuEST	Annual	Quantitative	TNHSRP
	3	Funds released for TAN-QuEST as a proportion of total funds allocated to TAN-QuEST	Annual	Quantitative	TNHSRP
	4	Number of TAN-QuEST Training Centers established by cadre	Annual	Quantitative	Training Cell, DME
	5	Proportion of beneficiaries using the online portal by cadre	Annual	Quantitative	Training Cell, DME
	6	Number of training sessions and participants by cadre	Annual	Quantitative	Training Cell, DME
	7	Number of TAN-QuEST programs accredited by cadre	Annual	Quantitative	Training Cell, DME
	8	Number of beneficiaries receiving TAN-QuEST Certification (composite score based on attendance, pre/post test results, and interactions during training) by cadre	Annual	Quantitative	Training Cell, DME
	9	Quality of care process indicators in QOCS	Annual	Quantitative	TNHSRP

	10	Additional quality of care process indicators, including Adverse Events, Medication Reconciliation, Post-Surgical Sepsis, In-hospital infections, 24-hour Cancellations, Turn Around Times, Takt times[1] (to be reviewed periodically)	Annual	Quantitative	TNHSRP
	11	Patient experience and satisfaction (also in QOCS)	Annual	Quantitative and qualitative	TNHSRP
	12	Provider experience and satisfaction by cadre (also in QOCS)	Annual	Quantitative and qualitative	TNHSRP
	13	Proportion of beneficiaries receiving an annual health check-up as TAN-QuEST's initiative to promote healthy lifestyle among the health workforce	Annual	Quantitative	TNHSRP
University	1	Analysis of Pre and Post Tests for TAN-QuEST programs by cadre	Annual	Quantitative and qualitative	Training Cell, DME
	2	Participant perception and feedback for TAN-QuEST programs by cadre	Annual	Quantitative and qualitative	Training Cell, DME
	3	Resource person/faculty experience by cadre	Annual	Quantitative and qualitative	Training Cell, DME
	4	University/Council(s) appointed observer experience by cadre	Annual	Quantitative and qualitative	Training Cell, DME
District	1	Number of TAN-QuEST Training Centres established by cadre	Annual	Quantitative	Training Cell, DME
	2	Proportion of beneficiaries using the online portal by cadre	Annual	Quantitative	Training Cell, DME
	3	Number of training sessions and participants by cadre	Annual	Quantitative	Training Cell, DME
	4	Number of TAN-QuEST programs accredited by cadre	Annual	Quantitative	Training Cell, DME

[1]Takt time is the maximum amount of time in which a product needs to be produced in order to satisfy customer demand.

	5	Number of beneficiaries receiving TAN-QuEST Certification (composite score based on attendance, pre/post test results, and interactions during training) by cadre	Annual	Quantitative	Training Cell, DME
	6	Quality of Care Process Indicators in QOCS (district level)	Annual	Quantitative	TNHSRP
Institutional (Individual health facilities)	1	Number of training sessions and participants by cadre	Quarterly	Quantitative	Training Cell, DME
	2	Number of beneficiaries receiving TAN-QuEST Certification (composite score based on attendance, pre/post test results, and interactions during training) by cadre	Quarterly	Quantitative	Training Cell, DME
	3	Number of projects/innovations generated by beneficiaries by cadre	Quarterly	Quantitative	Training Cell, DME
	4	Quality of Care Process Indicators in QOCS (facility level)	Quarterly	Quantitative	TNHSRP

Annexure 1

Minimum Training Package to Health Staffs:

1. Basic Life Support Module
2. Communication Skills Module
3. Good Clinical Practices Module
4. Teamwork Skills Module
5. Patients & Ethics Module
6. Bio Ethics Module
7. Research Methodology Module
8. Basic Medical Education Technology Module
9. Advanced Medical Education Technology Module
10. Basic Management Training Module
11. Advanced Management Training Module
12. Innovation & Development Module
13. Hospital Information Management System Module
14. Education Information Management System Module

Optional Professional Development Training Modules

1. Patient Advocacy & Patient Rights
2. Application of Cytogenetics
3. Applications of Cytology in Diagnosis
4. Automated Cell Counting
5. Ventilator Care & Maintenance
6. Interpretation of investigations and diagnostics like ECG, ECHO, X-ray
7. Disease conditions specific training like Sepsis, Fever of Unknown Origin
8. Programme specific training like Universal Immunization Program
9. Jurisprudence & Casualty Services
10. Clinical Establishment Act
11. Medical Insurance
12. Biomedical Waste Management
13. Hospital Infection Control & Antibiotic Policy

14. Hospital Planning & Construction
15. Quality Management of Public Hospitals
16. Quality Management in Medical Laboratories
17. Anti-biotic Stewardship
18. Laboratory Safety Procedures
19. Operation Theatre Maintenance
20. Central Steam Sterilization Department
21. Medical Publishing
22. Research Ethics
23. Telemedicine and Radiology
24. Inventory Management
25. Accounting and Auditing
26. Grief counselling
27. AYUSH and Allopathic Medicine
28. Health Research Fundamentals
29. Biostatistics
30. Principles of Epidemiology
31. Advanced Life Support Module

TAmil Nadu Quality Enhanced Structured Training (TAN - QuEST)

TAN - QuEST policy framework recognizes the importance of

- An in-service Health Care Provider Training and Professional Development programme.
- A holistic governance structure for health care provider training and professional development.
- A structured capacity building program that augments existing training.
- Building administrative, managerial and clinical competencies among human resource for health.

Tamil Nadu Health System Reform Program
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