

सत्यमेव जयते



'ONE-INDIA' FETP ROADMAP



National Centre for Disease Control

Directorate General of Health Services
Ministry of Health and Family Welfare
Delhi - 110 054

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FOREWORD

Universal Health Coverage (UHC) entails providing easily accessible and affordable health care to citizens of India - including Prevention, Promotion, Treatment, Rehabilitation and Palliation without incurring financial hardship. India is committed to achieving Universal Health Care (UHC) for all by 2030, which is fundamental to achieving the other Sustainable Development Goals.

To fulfil the vision of UHC, availability of adequately trained human resources for public health is critical. Globally the importance of public health human resource and infrastructure was highlighted during the COVID 19 pandemic. To augment and strengthen India's preparedness for future public health emergencies, the Government of India launched the Pradhan Mantri Ayushman Bharat Health Infrastructure Mission (PM ABHIM) in 2021.

Adequate availability of field epidemiology workforce as part of the larger public health workforce is critical to respond effectively in public health emergencies. To increase the number of Field Epidemiologists, Government of India has initiated trainings such as India Epidemic Intelligence Service training programme under PMABHIM. The One India Field Epidemiology Training Programme (FETP) Roadmap document is an initiative to consolidate the efforts of different Government of India agencies to scale up the field epidemiology training programme to reach upto district level health functionaries.

This roadmap document will provide a strategic direction for achieving the target of field epidemiology training coverage to all the districts of India by 2030.

(Dr. Mansukh Mandaviya)



डॉ. भारती प्रविण पवार
Dr. Bharati Pravin Pawar



सत्यमेव जयते

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स्वास्थ्य एवं परिवार कल्याण राज्य मंत्री
भारत सरकार

MINISTER OF STATE FOR
HEALTH & FAMILY WELFARE
GOVERNMENT OF INDIA



Foreword

For any country, the health of its people is the most important capital. India, in the recent decades, has made remarkable progress in the field of public health from smallpox and polio eradication, to strengthening universal immunization and improving maternal and child health indicators to meet the sustainable development goals.

A trained public health workforce is the cornerstone for providing universal access to quality, affordable health care to citizens and mitigating the impact of disease outbreaks and other public health events.

India's COVID-19 response demonstrates the strength of a mature and grounded public health system invested with grit, sweat and determination of our frontline health workers who took charge of core public health functions such as contact tracing, surveillance, testing and isolation, vaccination and patient care during the pandemic.

Preparedness to rebuild, upskill and maintain our public health workforce and talent pipeline is an ongoing process. The importance of a workforce with strong epidemiological skills was well understood during the COVID-19 pandemic. To this effect, the Govt. of India has a vision to expand the epidemiological skillset requirement upto district level public health functionaries in more than 700 districts.

The field epidemiology training programme (FETP) is a globally validated model of epidemiology workforce training. A roadmap for the scale-up of this training is articulated in the One-FETP roadmap document.

Government of India, under the visionary leadership of Hon'ble Prime Minister Shri Narendra Modi ji, is committed to meet the health needs of the people of India and I believe that this document articulates a vision to harness existing field epidemiology training capacity to optimize the coverage of field epidemiology workforce to the grass roots level in that way.

I congratulate entire team including NCDC, ICMR-NIE, NHSRC, NITI Aayog, WHO, US CDC in collaboratively drafting this useful document.


(Dr. Bharati Pravin Pawar)



प्रो.(डॉ.) अतुल गोयल

Prof. (Dr.) ATUL GOEL
MD (Med.)

स्वास्थ्य सेवा महानिदेशक
DIRECTOR GENERAL OF HEALTH SERVICES



भारत सरकार
स्वास्थ्य एवं परिवार कल्याण मंत्रालय
स्वास्थ्य सेवा महानिदेशालय
Government of India
Ministry of Health & Family Welfare
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FOREWORD

The National Health Policy (2017), highlights the need for a multidisciplinary workforce required for managing various programs under National Health Mission. The policy also envisages creation of a Public Health Management Cadre (PHMC) in all states. In 2022, public health management cadre implementation guidelines were launched by MoHFW to facilitate states in developing a PHMC.

Field epidemiology workforce is an integral part of public health workforce, especially in the context of public health security and implemented of revised IHR. The One-India FETP roadmap document is developed with an objective to consolidate the efforts of various FETP programmes, currently supported through different Government of India institutions. It lays-out clear short term and long term targets for workforce training upto district level in more than 700 districts of India. It also recognizes state health departments as key stakeholders who should plan and drive such trainings through National Health Mission.

The document was prepared by NCDC in close consultation with other Government Institutions such as ICMR-NIE, NITI Aayog, NHSRC along with collaborators from WHO India Country Office, US CDC Country Office and State Governments. This document will complement creation of PHMC in the states to strengthen public workforce, disease surveillance and response. It will also attract committed and eligible medical epidemiologists to join the National Health System towards a career pathway. The need for having such a workforce with epidemiological skills was felt and understood during the Covid-19 pandemic.

The government has initiated various programs for skill development across sectors; for in-service public health professionals, FETP is an appropriate model for skill development, recognized globally. I congratulate NCDC, ICMR-NIE and all collaborating partners for developing this important document.


(Atul Goel)

Messages

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The roadmap document presents a unified vision of all organisations working towards strengthening field epidemiology capacity in India's public health system. The collaborative approach will help achieve the goal of at least one trained field epidemiologist in every district to efficiently manage outbreaks, public health surveillance and the emerging burden of non-communicable diseases.

Dr. Manoj Murhekar
Director, ICMR- National Institute of Epidemiology

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Field epidemiologists, also known as 'Disease Detectives', play a vital role as the first responders to disease outbreaks and other health emergencies. The COVID-19 pandemic has highlighted the critical shortage of field epidemiologists around the world and the relevance for Field Epidemiology Training Programmes -- or FETP -- in building the global health emergency workforce. The unique value of FETP such as this one is its emphasis on learning by collaborative problem-solving and enhancing public health capabilities to rapidly respond to emerging health crises, whether they are in India, the Region or the world.

Dr. Roderico H. Ofri
WHO Representative to India

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A trained public health workforce is key to early detection and response and mitigating the impact of disease outbreaks and other public health events. The objectives and strategies detailed in the 'One-India' FETP Roadmap will further strengthen India's public health workforce and global health security capacity. Field Epidemiology Training Program, or FETP, helps countries develop “disease detectives” at the district, state and national levels. Since 1980, the US Centers for Disease Control and Prevention (CDC) has helped train FETP officers around the world. As a long-standing technical partner and supporter of India FETP, CDC congratulates the National Centre for Disease Control, MoHFW, Government of India on this landmark initiative.

Dr. Meghna Desai
Country Director
U.S. Centers for Disease Control and Prevention

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Preface

An adequately trained public health workforce is vital for a resilient health system. Field epidemiology workforce is an integral part of a larger public health workforce. Countries must have effective field epidemiology capacity to adequately protect and safeguard the health of their population, those living in neighboring countries, and the world. In order to build this capacity, over 100 countries throughout the world have successfully implemented the Field Epidemiology Training Programme (FETP) initiative. The COVID-19 pandemic has further highlighted India's vulnerability to public health emergency threats and the need to strengthen preparedness to respond to such threats. India's susceptibility to global health threats increases particularly in the context of a population of over 1.4 billion spread across 37 states and union territories, 31 international airports, 11 seaports, 7 ground crossings and 8 bordering countries. To address this vulnerability, India needs an adequately trained field epidemiology workforce in all states and at all levels of the health care and public health system.

In India, while medical university-based academic postgraduate training in public health is being implemented in over

600 universities, these trainings have limited requirements for field competencies. As a result, they have demonstrated limited public health impact and are resource intensive. Currently, at the national level, the National Centre for Disease Control (NCDC) and Indian Council for Medical Research-National Institute of Epidemiology (ICMR-NIE) implement FETP using varied curriculum and training models. State nominated trainees graduating from these FETPs provide epidemiology services to the local public health systems. To ensure availability, accessibility, acceptability, equity and quality of field epidemiology workforce across the country, the Government of India is initiating the 'One-India' FETP initiative. Under this initiative, the training and mentorship capacity of the two existing national institutes along with partner institutions will be leveraged to work closely with the states to jointly plan and implement state specific action plans for field epidemiology workforce. In discussion with National Health Mission, and respective state governments, a funding model will be explored and financing framework developed.

This document provides a framework to harness and scale-up existing FETP training capacity to optimize the coverage of field epidemiology workforce in all the states. Government of India institutions, led by NCDC and ICMR-NIE and supported by WHO and U.S. Centers for Disease Control and Prevention (CDC), will collaborate with state governments to implement the 'One-India' FETP initiative.

The 'One-India' FETP Roadmap provides strategic goals and objectives required to ensure that FETPs in India are high quality, embedded within government institutions, sustainable and provide opportunities to trained personnel to work in the public health system. The broad objectives under which the activities are planned include:

1. Develop an administrative framework and plan to build a public health workforce at the district, state and national levels equipped with appropriate applied epidemiologic skills to support disease surveillance and response systems.
2. Establish and maintain a strong, sustainable, and high-quality network of FETPs in India led by the MoHFW, GoI.
3. Implement innovative training strategies to meet evolving public health requirements and ensure quality.

Background

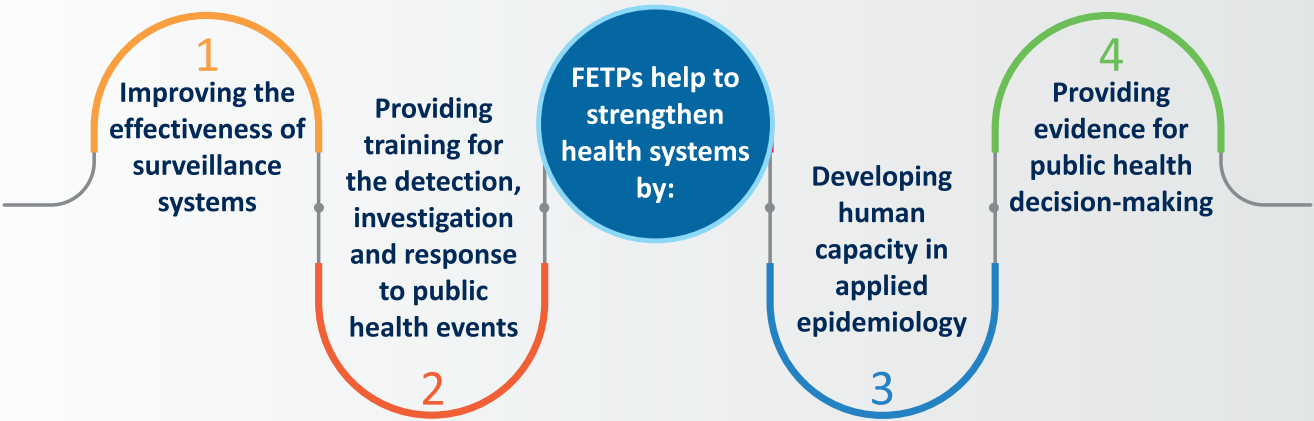
India is a vast country with a population of 1.4 billion, 37 states and union territories, and 728 districts. India has made remarkable progress in public health such as polio eradication, tuberculosis control, and improving routine immunization. However, the COVID-19 pandemic has highlighted the need for more trained human resources to meet public health security challenges. The 123rd report of the Parliamentary Standing Committee on Health recognized the crucial role of epidemiologists in assessing disease distribution and providing strategic guidance for disease control. Health workers trained in epidemiology are critical for a robust surveillance system. Although a public health cadre exists at the central level, only a few states (e.g., Kerala, Maharashtra, Odisha, Tamil Nadu, and West Bengal) have a designated public health workforce. In addition, most postgraduate epidemiology training is provided through academic programmes which do not include field-based core public health competencies in outbreak investigations and public health responses. Field epidemiology training

programmes (FETPs), modelled on the US CDC's Epidemic Intelligence Service (EIS) programme, are designed to provide real time, on the ground training which builds the capacity of epidemiologists to help prevent, detect, and control outbreaks. When health threats occur, trained epidemiologists investigate and offer practical guidance for public health action. They quickly communicate crucial information about health problems, including infectious and noncommunicable diseases and environmental hazards, to communities and local health authorities.

In 2022 the MoHFW mandated the National Health Systems Resource Centre (NHSRC) release guidelines for implementing a multidisciplinary PHMC. The PHMC will augment the capability of the public health system to strengthen public health service delivery, disease surveillance and programme implementation. The proposed 'One-India' FETP model will serve as a potential talent pipeline for state to implement PHMC. FETPs are competency-based training programmes that emphasize learning-by-doing and mentorship. A fundamental element of an FETP is the role of the mentor. The activities of FETP officers are mentored and supervised by a highly skilled epidemiologist experienced in fieldwork. FETP training follows a three-tiered pyramid model comprised of basic, intermediate, and advanced training. In India, all the three tiers of FETP are implemented and officers are nominated for training programmes according to their

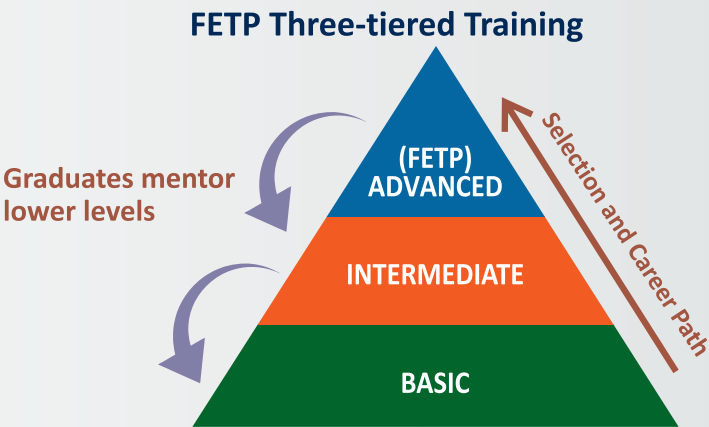
work requirements. Basic-level FETPs, also known as Frontline FETPs, generally require three months of part-time training. Intermediate-level FETPs generally require 12-15 months of part-time training (as Intermediate FETP aims to keep trainees in their workplaces, trainees receive roughly six to eight

weeks of face-to-face modules and complete work-based projects in between) under mentorship. Most Advanced-level programmes require two years of mentored, full-time training. The training provides participants with hands-on experience in responding to disease outbreaks, natural disasters, and other public health priorities including disease surveillance.



FETP in India is implemented at NCDC, ICMR-NIE and WHO Country Office for India. This 'One-India' FETP Roadmap will help bring implementing partners together to ensure quality, collaboration and coordination to promote cross-hub learning. This policy document will also help to institutionalize the FETP training model at the state level and ensure sustainability. Currently there is no career pathway linked to FETP training and existing service rules do not recognize this

training in career progression. As part of the implementation plan efforts will be made in consultation with the states for consideration of FETP trained officers for PHMC.



Overview of the Three Tiers of FETP

	Frontline FETP	Intermediate FETP	Advanced FETP
Duration	3 months	12-15 months	2 years
Part time or full time	Part-time	Part-time	Full-time preferably
Core Activities of Learning			
Surveillance data quality	✓ (group)	NA	NA
Surveillance data analysis	✓ (group)	✓	✓
Surveillance system/ programme evaluation	NA	✓	✓
Case investigation	✓ (group)	NA	NA
Outbreak investigation	✓ (group)	✓	✓
Epidemiological study	NA	✓ (group)	✓
Conference abstract	NA	✓	✓
Oral presentation (conference)	NA	✓	✓
Manuscript submission	NA	NA	✓
Time in the field	All core activities of learning are completed in the field under the guidance of a mentor. Specific time in the field varies by programme.		

FETP Competencies by Tier

Domain	FETP-Frontline	FETP-Intermediate	FETP-Advanced
Public health surveillance	<ul style="list-style-type: none"> Summarize surveillance data using simple tables, graphs & maps Interpret surveillance data to identify potential outbreaks Conduct data quality audits at surveillance reporting sources 	<ul style="list-style-type: none"> Summarize surveillance data using tables, graphs & maps Interpret surveillance data Produce surveillance reports for external distribution Evaluate effectiveness & performance of a surveillance system 	<ul style="list-style-type: none"> Analyze surveillance trends & patterns Interpret surveillance data Produce surveillance reports & manuscripts for external distribution Develop & implement recommendations for improving surveillance systems
Field investigation	Participate in epidemiologic field investigation	Conduct outbreak investigations using descriptive epidemiology	Conduct (lead) outbreak investigations using analytic epidemiology
Epidemiologic methods	<p>Summarize & interpret surveillance data</p> <ul style="list-style-type: none"> Summarize surveillance data using simple tables, graphs & maps Interpret surveillance data to identify potential outbreaks 	<p>Design, conduct, analyze & interpret data from descriptive epidemiologic studies</p> <ul style="list-style-type: none"> Analyze surveillance & outbreak data using descriptive epidemiology methods Participate in the planning, conduct & analysis of cross-sectional studies Interpret surveillance & descriptive epidemiologic data 	<p>Design, conduct, analyze & interpret data from analytic epidemiologic studies</p> <ul style="list-style-type: none"> Design, write a protocol for & conduct planned epidemiologic studies Analyze data from planned studies using analytic epidemiology methods Interpret & draw evidence-based conclusions from epidemiologic data
Communication (public, media and scientific)	<ul style="list-style-type: none"> Produce simple surveillance reports for internal use Develop & deliver oral presentations of work-related projects to an internal audience 	<ul style="list-style-type: none"> Produce surveillance reports for external distribution Write field investigation reports for dissemination of findings Contribute to scientific reports that use the IMRaD structure Develop & deliver oral presentations of work-related projects 	<ul style="list-style-type: none"> Produce surveillance reports for external distribution Write field investigation reports for dissemination of findings Write manuscripts for publication in peer-reviewed journals Write & submit abstracts to scientific conferences Develop & deliver an oral or poster presentation at a scientific conference

FETP at NCDC

The vision-mission of NCDC is to be a catalyst for a vibrant national health system through strengthening public health surveillance, outbreak investigation and response, and capacity building in applied epidemiology and public health. NCDC has been on the forefront of human resource capacity building in applied epidemiology, disease surveillance, entomology and laboratory diagnostic methods in India through its various training programmes.

NCDC's Epidemiology Division conducts training programmes in field epidemiology and has been recognized as a WHO South East Asia Collaborating Centre for Epidemiology since 1996. While NCDC has been implementing various formats of short course epidemiology trainings since 1963, it started a university affiliated MPH programme in 2006 which transitioned to an Advanced two-year FETP in 2012. The India Epidemic Intelligence Service (EIS) is an Advanced FETP focused on field competency-based learning-by-doing approach for future public health leaders. The NCDC Frontline 3X3 FETP

was launched in 2021 and it focuses on rapid epidemiological capacity building for district frontline public health workforce.

India EIS

India EIS, a 2-year full-time training programme for medical officers, was established in 2012. Officers may be nominated by state governments or may participate as self-sponsored candidates. Selected officers are placed at various disease programmes implemented by NCDC, other national health programmes of the MOH or state surveillance units. Starting in 2022, officers enrolled for the EIS programme also receive a degree in Masters in Applied Epidemiology (MAE). Since 2012, more than 60 officers have graduated and 28 officers are currently undergoing training. India EIS-trained officers working at the national and state levels will be identified as potential mentors for Frontline and Intermediate FETPs.



Director General Health Services, GoI with faculty from Epidemiology Division, NCDC and cohort 9 EIS officers



EIS officers investigating measles outbreak in Longding district, Arunachal Pradesh, June 2017



EIS officer conducting Anthrax outbreak investigation, Simdega district, Jharkhand, May 2015



EIS officers taking anthropometric measurement during Acute Encephalitis Syndrome outbreak in Muzaffarpur district, Bihar, June 2019



EIS officer collecting data during Kyasanur forest disease (KFD) outbreak, Shimoga district, Karnataka, June 2022

Frontline FETP

Frontline FETP is a three-month training programme that was first implemented in India by the National Institute of Health and Family Welfare (NIHFW), which trained approximately 250 district level personnel between 2016-2019. In 2021, NCDC updated and adapted the modules to meet the requirements of field surveillance officers. The updated programme is known as 3x3 FETP. District and state level surveillance officers, epidemiologists and microbiologists undergo this part-time training at their state headquarters. Officers are expected to attend three contact sessions, each of three days in duration, a month apart. In between the contact sessions, officers continue to work at their respective duty locations and complete their group assignments. NCDC 3X3 FETP has trained 216 officers across 81 districts in 4 states.



Manipur State Health Minister; DGHS GoI; Director NHM, Manipur, Director CDC India Office and other officials at the valedictory function of 3x3 Frontline FETP at Imphal, Manipur, January 2023



Director NCDC and MD NHM Rajasthan at Frontline FETP Valedictory event, Jaipur, February 2022



Principal Secy (H), Arunachal Pradesh and Director, NCDC at inaugural function of Frontline FETP in Naharlagun, October 2021

FETP at ICMR-NIE

The overall objective of ICMR-NIE is to undertake epidemiological studies and develop human resources in epidemiology. The Institute hosts the ICMR School of Public Health.

South-India EIS, 2-year Advanced FETP and FETP-MPH

ICMR-NIE established the 2-year FETP leading to a Master of Applied Epidemiology (MAE) degree in 2001 (until 2010) and a Master of Public Health (MPH) Epidemiology and Health Systems degree in 2011 (ongoing). In addition, the institute conducts a 2-year Advanced FETP with special focus on non-communicable diseases (NCDs) and a South-India EIS programme. Both government and self-sponsored candidates are eligible for the FETP-MPH programme, while in-service government sponsored candidates are eligible for the Advanced FETP (NCD) and South-India EIS.

Intermediate FETP

There are two models of the 12-month Intermediate FETP (I-FETP) at ICMR-NIE, NIE-based (from various states), and state-based (limited to officers from that particular state). For both the models, only state-nominated officers are eligible. Both models include a focus on NCDs and officers continue to work at their respective duty locations to complete their assignments. For the NIE based I-FETP, officers attend four contact sessions at NIE, each of one week duration over a 12-month period, while for state-based training, they attend contact sessions at their state HQ. Under both the models, officers work with the assigned mentors to complete their assignments.



India EIS Officer during COVID-19 vaccination supervision, Udupi district, Karnataka, August 2021



India EIS Officers investigating leptospirosis outbreak among agricultural workers, Kasaragod district, Kerala, March 2022



US Consul General; Director ICMR-NIE; Director CDC India Office along with senior faculty and scientists from ICMR-NIE and South-India EIS Cohort 1 graduates at the certification ceremony, ICMR-NIE campus, Chennai, Tamil Nadu, March 2021



Induction training India EIS & FETP NCD fellowship officers (cohort 3) at ICMR NIE, Chennai, September 2021



Induction training state specific Intermediate FETP officers, Bhubaneswar, Odisha, September 2022

FETP at WHO Country Office for India (WCO India)

WCO India has a team of medical officers who work with their state and national level counterparts across health-related areas, including vaccine preventable diseases, neglected tropical diseases (NTDs), and communicable diseases. WCO India in collaboration with US CDC started FETP in 2016 with the goal of strengthening field epidemiology capacity of their field staff. Currently WCO India conducts a 12-15 month Intermediate FETP training and a three-month Frontline FETP.

Intermediate FETP - Applied Epidemiology Programme (AEP)

WCO India conducts the Applied Epidemiology Programme, or AEP, a 12-15 month Intermediate FETP on-the-job training programme for WHO field medical officers. During the training, officers continue to work at their respective duty stations and participate in four contact sessions, each of one week duration. Assignments are completed under the supervision and guidance of assigned mentors (WHO officers who are FETP alumni).

Frontline FETP

WCO India's Frontline FETP is a three-month on-the-job training for WHO field medical officers. Two contact sessions are held over a period of three months. The officers complete their assignments under the supervision of a FETP alumni mentor.



WHO-EIS officers assess Polio Transit Team cold chain during Kumbh Mela, Prayagraj district, September 2019



WHO-AEP officer conducting a case search during a diphtheria outbreak, Alwar district, Rajasthan, September 2020

Critical Role of Mentors

FETP mentors play an integral role during FETP training - 75% of FETP learning is through practical training in the field under the guidance of a mentor. FETP mentors should have a comprehensive knowledge of the expected FETP core activities of learning, including surveillance, data collection,

analysis, and epidemiologic investigation. To perform these duties successfully, FETP alumni are the preferred mentors, as they have a comprehensive understanding of the programme's requirements and the necessary technical knowledge and field experience required to support and supervise the residents. A strong and successful mentor is an experienced field epidemiologist who works closely with the officers.



India FETP leadership and faculty training, Thiruvanthapuram, Kerala, November 2022

Guiding Principles

- **Governance**
- **Institutionalization at national and state levels**
- **Equity**
- **Sustainability**
- **Quality**

Goal

Strengthen national capacity for disease surveillance and the prevention, detection and response to emerging diseases and other public health events to ensure the safety of the population in India and prevent disease transmission in the neighboring countries.

Objectives

1. Develop an administrative framework and plan to build a public health workforce at the district, state and national levels equipped with appropriate applied epidemiologic skills to support disease surveillance and response systems.
2. Establish and maintain a strong, sustainable, and high-quality network of FETPs in India led by the MoHFW, GoI.

3. Implement innovative training strategies to meet evolving public health requirements.

Strategies to Achieve Key Objectives

1. Develop an administrative framework and plan to build a public health workforce at the district, state and national levels equipped with appropriate applied epidemiologic skills to support disease surveillance and response systems.
 - India will develop a detailed phased implementation plan for three-tiered FETP training at district and state levels. This implementation plan will identify key stakeholders and their responsibilities.
 - India will constitute an FETP working group tasked with monitoring progress towards key FETP milestones.
 - FETP trainings to be recommended for newly recruited public health officials working at state and district level per their job requirement. Minimum recommended requirement for this training at the district level is Frontline FETP, while at the state level it is Advanced or Intermediate FETP training.
 - State and national public health programmes should recognize Intermediate and Advanced FETP training in recruiting public health personnel.

- FETP trained officers at district, state, and national levels to be posted and assigned responsibilities accordance to their FETP training.
2. Establish and maintain a strong, sustainable and high-quality network of FETPs in India led by the MoHFW, Gol.
 - Constitute an India FETP steering committee, Chaired by DGHS, GOI and Co-chaired by Secy. (DHR).
 - Develop a national registration and accreditation process for FETPs in India.
 - Hold an India FETP conference every two years, convene an India FETP directors meeting twice yearly.
 - Collaborate with NHM and respective states/UTs to develop sustainable models for funding.
 - Require annual training and certification for FETP mentors and faculty to ensure quality.
 3. Implement innovative training strategies to meet evolving public health requirements and ensure quality.
 - Use innovative technology to deliver training, facilitate cross hub collaboration, and monitor quality through Learning Management System (LMS).
 - As part of FETP training, officers should also be given an opportunity to learn about emerging diseases (clinical perspective) and various laboratory testing related updates including information on newer vaccines.
 - Plan opportunities for cross hub learning (e.g. joint outbreak investigations, field projects and monthly seminars).
 - Identify and secure resources to implement FETPs targeting specific areas of interest to Gol (e.g. infection prevention and control, One Health, laboratory, informatics).
 - Leverage IHIP to support linkages between outbreak response and pathogen genomics data for precision epidemiology.

Role of NCDC and ICMR-NIE

NCDC, as the lead agency for disease surveillance and public health response in India, will lead the expansion of FETP in India in close collaboration with ICMR-NIE, state-level Directorates of public health and partner organizations (specifically WHO and US CDC). Efforts will be made to engage medical college faculty as mentors and faculty supervisors, to strengthen collaboration between the Directorates of public health and medical education to increase the network of trained epidemiologists. To successfully implement the 'One India' FETP plan, NCDC and ICMR-NIE will work synergistically to rapidly expand the three tiers of FETP from 2023-2030. As part of the implementation plan, NCDC will prioritize Frontline FETP, Intermediate and the India EIS programme, while NIE will continue to focus on Intermediate FETP, Advanced FETP MPH, NCD Advanced FETP and EIS. During this period, the Steering Committee will identify additional

collaborators for the implementation expansion. NCDC and WHO will support and provide technical assistance for Intermediate FETP expansion to complement ICMR-NIE's efforts. The implementation will be done in a phased manner. Phase 1 will prioritize groundwork for strategic planning, securing financing and institutionalization for roll-out of FETP expansion at state level. Phase 2 will involve implementation of national/state-specific FETP trainings and ensuring quality training and equity.

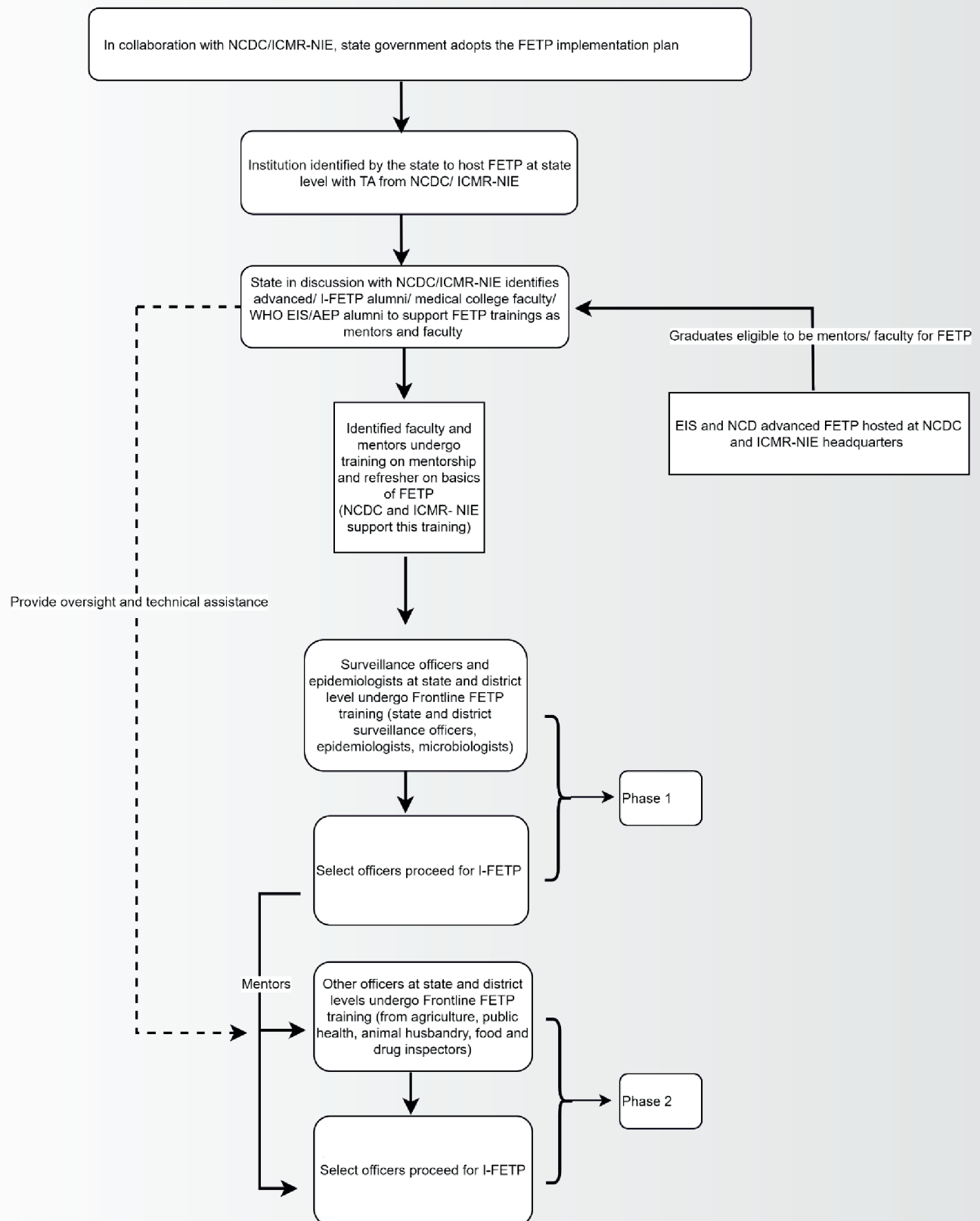


India FETP officers participating in a panel discussion at IPHACON 2022, Pune, Maharashtra, September 2022

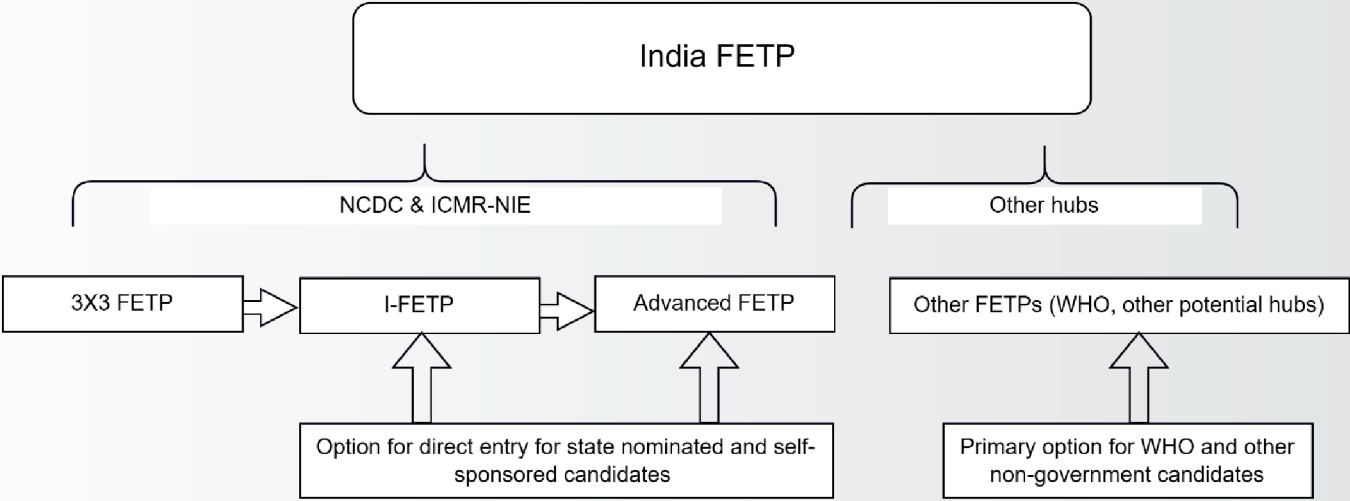
Implementation Framework

Actions	Objective 1: Develop an administrative framework and plan to build a public health workforce at the district, state and national levels equipped with appropriate applied epidemiologic skills to support disease surveillance and response systems	Objective 2: Establish and maintain a strong, sustainable, and high-quality network of FETPs in India led by the MoHFW, GoI	Objective 3: Implement innovative training strategies to meet evolving public health requirements and ensure quality
1	Constitute 'One-India' FETP Steering Committee (phase 1)		
2	Constitute 'One-India' FETP Technical Working Group (phase 1)		
3	Constitute a national registration and accreditation process for FETPs in India (phase 2)		
4	Identify states, obtain endorsement for implementing FETP for state and district level PH workforce (phase 1 and 2)		
5	Work with identified states to develop a detailed phased implementation plan for three-tiered FETP training at district and state levels (phase 1 and 2)		
6	Collaborate with NHM and respective states/UTs to develop sustainable models for funding (phase 1 and 2)		
7	Advocate for FETP training to be mandatory for each district and state surveillance officer and epidemiologist (phase 1 and 2)		
8	FETP trained officers at district, state and national levels to be posted and assigned responsibilities in accordance with their FETP training (phase 1 and 2)		
9		Identify and train state FETP mentors and faculty (phase 2)	
10		Assist states with preparing an annual training calendar	
11		Roll-out and cascade state led Frontline FETPs (phase 2)	
12		National institutes to develop implementation guidance documents, checklists and state specific epi capacity building benchmarks (phase 2)	
13		State and national public health programmes to recognize health personnel and ensure efficient utilization of FETP trained personnel (phase 2)	
14		Plan opportunities for cross hub collaboration to promote learning (phase 2)	
15		Annual training and certification for FETP mentors and faculty, introduce continuing education credits (phase 2)	
16		A centralized database of trained FETP officers and mentors to be established (phase 2)	
17		FETP mentors and faculty at all levels to participate in domestic FETP conferences and various faculty development programs (phase 2)	
18			Use innovative technology to deliver training, facilitate cross hub collaboration, and to monitor quality and programme management (LMS) (phase 2)
19			Implement FETPs targeting specific areas (e.g. IPC, One Health, laboratory, data informatics, infectious disease epidemiology) (phase 2)
20			National institutes to assist in reviews, monitoring and evaluation of state-led FETP, develop impact indicators (phase 1 and 2)

Algorithm for FETP Expansion



'One-India' FETP structure



Monitoring and Evaluation Plan

To track progress, key indicators have been developed that will be followed by the Steering Committee on a regular basis. The indicators are both overall for the India FETP and programme specific indicators.

Input Indicators

1. 'One-India' FETP Roadmap in place
2. National FETP Working Group constituted
3. State FETP Working Group constituted
4. Sustainable funding model established
5. Established network of core faculty, mentors and supervisors
6. Standard training plan for mentors and supervisors

Process Indicators

1. % states on-boarded for FETP training and focal point identified
2. Mechanism in place for FETP officers to upgrade their level of training
3. % states enrolled at least one batch of Frontline/ Intermediate FETP training
4. Number of trainee officers currently enrolled
5. Retention of trainee officers (%) over the last one year
6. Use of technology to monitor quality. Improve access and program management

Output Indicators

1. Number of FETP officers graduated
2. Number of divisional/district headquarters with at least one Advanced FETP trained officer
3. Number of divisional/district headquarters with at least one Intermediate FETP trained officer
4. Number of divisional/district headquarters with at least one Intermediate FETP trained officer
5. Number of investigations of acute health events by trainees conducted over last one year
6. Number of Frontline FETP alumni at state level engaged in field investigations over the last one year
7. Number of planned studies conducted by trainees over last one year
8. Number of surveillance systems evaluated and data analyzed by the trainees over the last one year
9. Number of presentations to scientific conferences by trainees over last one year

Outcome Indicators

1. States where at least five acute health events have been investigated by multidisciplinary teams of FETP graduates/ trainees over the last one year
2. States sending at least one epidemiological report communications to NCDC/IDSP monthly surveillance bulletin
3. States where candidates with FETP training are preferred for recruitment and career advancement for public health positions
4. % of FETP graduates serving as FETP mentors

Governance and Institutionalization

For efficient functioning of FETP, a two-level governance mechanism will be established by the MOH. **1.** A Steering Committee chaired by DG Health Services and co-chaired by DG ICMR, GOI will provide oversight to India FETP and will make key decisions. **2.** A Technical Working Group (TWG) comprising of representatives from national institutions (NCDC, ICMR-NIE, participating states) will guide and implement the programme. The TWG will maintain the quality of the programme and ensure that FETP training is able to meet India's evolving public health needs. As the programme expands, new collaborations will be established. **3.** A FETP Registration and Accreditation Committee will be established to ensure all FETP implementing organizations are registered and follow standard FETP curriculum and guidelines.

Financing and Sustainability:

In consultation with state/ UT governments, efforts will be made to secure funding through state, NHM

resource envelope and other funding sources.

Quality:

The TWG, in the role of guiding and implementing programmes, will monitor the quality of FETPs in the country. In addition, the Registration and Accreditation Committee will also help to ensure basic standards across FETPs.

Equity:

The goal of FETP is to strengthen national capacity for disease surveillance, and prevention, detection and response to emerging diseases and other public health events. To achieve 'One-India' FETP, GoI will partner with relevant organizations to provide basic epidemiologic capacity for all personnel working in human health, animal health, basic public health, food safety and agriculture sector, as part of a phased implementation plan. In addition, technological platforms, such as Learning Management System, or LMS, will be used to provide access to high quality self-paced learning modules on the basics of epidemiology, data quality, disease surveillance and outbreak investigations.

Key Milestones

- Release of 'One-India' FETP Roadmap by MoH
- Establish Steering Committee and Technical Working Group
- First meeting of Steering Committee
- Development of 'One-India' FETP implementation plan



India FETP leadership meeting, Thiruvanthapuram, Kerala, November 2022

Appendix 1 - India FETP Steering Committee

The objectives of the Steering Committee are to:

1. Oversee and guide implementation of all FETPs in India;
2. Provide strategic guidance to all collaborating agencies towards achievement of the 'One-India' FETP Roadmap; and
3. Provide strategic guidance on the expansion of FETPs to build national, state and district level public health epidemiology workforce capacity.

Terms of Reference

1. Guide and monitor progress towards expansion and implementation of all three levels of FETP in India (Advanced, Intermediate and Frontline) supported through Gol.
2. Constitute a technical working group for monitoring progress toward key FETP milestones and overall FETP goals and policies.
3. Guide collaboration among all India FETP hubs, including standardization of curriculum (both content and duration), minimum eligibility

criteria, sharing of resources (master trainers/faculty/mentors/seminars/contact sessions), and joint response for public health emergencies.

4. Provide strategic guidance and vision for the expansion of FETP in India in new thematic areas (e.g. FETP One Health, FETP-laboratory services).
5. Establish policies regarding the selection, assignment, and placement of FETP officers in national and state public health programmes.
6. Periodically review FETP in India across all hubs and assess progress towards:
 - a. Achievement of global accreditation of FETPs through TEPHINET;
 - b. Guide and monitor the progress of the FETP TWG and RAWC;
 - c. Affiliation of programmes with university degree programmes and public health cadre promotion mechanisms;
 - d. Adherence to national and state requirements;
 - e. Availability and quality of blended learning modalities (online and in-person);
 - f. Establishment of continuous quality improvement and monitoring in each FETP hub;
 - g. Knowledge dissemination (participation in conferences, publication in peer-reviewed journals);

- h. Guide and monitor effective utilization of FETP alumni in states;
- i. Ensuring a network of FETP mentors sufficient to sustain FETP expansion;
- j. FETP recruitment and retention; and
- k. Equity.

Frequency of the India FETP Steering Committee Meetings

The India FETP Steering Committee will meet on a regular basis, at least twice every year. The frequency of meetings of the Steering Committee will be determined by the status of progress towards the achievement of identified targets.

Reporting of the Committee

The Steering Committee will report its findings and recommendations to the Ministry of Health and Family Welfare, Government of India.

Secretarial support

The secretarial support will be provided by the Epidemiology Division, NCDC.

Composition of the India FETP Steering Committee

- **Chair**
 - DG Health Services
- **Co-chair**
 - Secretary (DHR) and DG (ICMR)
- **Members**
 - Additional Secretary (MoHFW)
 - Director NCDC
 - Director ICMR-NIE
 - Representation from States - MD-NHM/ Project Director
 - WR, WHO India Office
 - India Country Director, US CDC
 - SMEs from Medical Institutes and Public Health Institutes

Appendix 2 - FETP Technical Working Group, India FETP

The FETP Technical Working Group (TWG) will be constituted and will be tasked with monitoring progress toward key FETP milestones and overall FETP goals and policies. The TWG will help guide roll out of new FETPs and facilitate communication and discussion among the FETP hubs for coordination and provide recommendations to the Steering Committee.

The TWG will have representation from India FETP programmes - NCDC, ICMR-NIE, WHO Country Office India, CDC, and partner agencies. TWG will consist of hub coordinators, Resident Advisor and other members from the hubs and relevant partner organizations along with representatives from IAPSM and IPHA. The chair of TWG can rotate annually between NCDC and ICMR-NIE.

Roles and Responsibilities of the TWG

- Monitor progress towards key FETP milestones and overall FETP goals and policies.
- Standardized implementation of FETP training and curriculum in three FETP tiers (Frontline, Intermediate and Advanced) across all hubs in India.
- Provide technical guidance on Core Activities of Learning and competency-building opportunities.
- Provide technical guidance on initiating new FETPs and identifying new potential hubs.
- Provide technical guidance and leadership for continuous development and quality improvement.
- Conduct timely evaluations and monitoring to ensure that state and

national priorities are being addressed and the workforce is appropriately selected, trained, and supports the needs of the public health systems at the national, state, and district levels.

- Ensure professional standards and competency requirements are maintained to produce a competent public health workforce in the country.
- Provide guidance on the selection, assignment, and placement of FETP officers.
- Provide a forum for addressing technical issues related to FETP workforce development and implementation across hubs.
- Develop policy and procedures for coordination across FETP hubs for officer deployment during emergencies, outbreak response, epidemiological studies and on-site trainings.
- Plan FETP faculty and mentor capacity-building opportunities.
- Support the network of FETP mentors.
- Guide implementation and expansion of the FETP Learning Management System.
- Plan national FETP conferences.
- Provide guidance for advocating FETPs for officer nomination in states and Government institutions in India.
- Advocate for FETP programme needs with the FETP Steering Committee and Ministry of Health.
- Plan quarterly meetings between FETP hubs for discussions, communications, and collaboration.

Term in office: The usual term of the chair is two years, renewable once (maximum of four years). The vice-chair's term is one year, renewable three times (maximum of four years). The usual term of office for members is two years, renewable twice (maximum of six years).

The committee shall meet every four months or as the chair of the TWG deems necessary. Meetings may occur in person or via conference call.

Appendix 3 - Registration and Accreditation Working Committee

The Registration and Accreditation Working Committee (RAWC) will register new hubs for conducting FETPs and will guide the development of accreditation policies, processes, and procedures. It will also provide continuous leadership and technical expertise for evaluation and technical oversight of the India FETP.

The RAWC also has a role facilitating communication and discussion of key accreditation matters within and among the programmes and hubs to coordinate and facilitate communication.

- Need for registration- before a programme can start FETP, they will need to register to demonstrate basic infrastructure including trained mentors and faculty, a mechanism to provide field work experience and sustainable resources. As part of this process, the RAWC will assess the hub and how it will complement the existing network of FETP hubs.
- Purpose of accreditation - after a programme has successfully

graduated two cohorts, the programme will be eligible for national accreditation. The accreditation is to acknowledge the quality of the programme per FETP standards and ensure mentorship and other programmatic requirements are being fulfilled and documented regularly.

The RAWC will have representatives from the Ministry of Health and national level institutions and the secretariat will be served by faculty from NCDC and ICMR-NIE. RAWC members can invite other programme directors and programme staff to participate in RAWC activities or to make up part of the subcommittees designed to support its activities. If an RAWC member can no longer continue performing his/her duties, the alternate will replace him/her on the RAWC and subsequently ask the concerned organization to designate a new alternate to continue supporting RAWC activities.

The RAWC provides recommendations to the Steering Committee and the FETP Technical Working Group on policies, standards, and criteria relating to the accreditation of FETPs in India and offer an appeal mechanism for any accreditation decisions made by subcommittees under the FETP Technical Working Group.

RAWC members should possess the following key competencies and characteristics: experience and expertise in standard setting and/or programme evaluation; demonstrated knowledge of the policies, processes, and standards related to accreditation; general knowledge about the principles and practices of the accreditation subcommittees and FETP; and an ability to integrate strategic thinking and risk management in the formulation of accreditation policies and standards.

Roles and Responsibilities of the RAWC

- Provide technical guidance and leadership for the continuous development and quality improvement of the India FETP accreditation process.
- Develop a process of registration for hubs.
- The RAWC will usually meet twice per year and will develop and approve plan of activities and priorities.
- Review and update the accreditation standards and procedures on a yearly basis.

- Approve, review and update guidelines, documentation, and training materials related to the accreditation of FETPs.
- Receive input and feedback from programme directors and partners.
- Guide the programmes for TEPHINET accreditation process.
- Contribute information, analysis, and recommendations necessary to evaluate the programme.
- Collaborate and engage with the FETP working group and provide recommendations to support their vision.
- Explore opportunities for collaboration of FETPs with academic institutions.

Term in office

The usual term of the chair will be two years, renewable once (maximum of four years). The term of the vice-chair is one year, renewable three times (maximum of four years). The usual term of office for members is two years, renewable twice (maximum of six years).

'One India' FETP Roadmap Consultation

NCDC, New Delhi

24 January, 2023

List of members

Name	Designation	Organisation
Prof (Dr.) Atul Goel	DGHS and Director	NCDC
Dr. S.K. Jain	Advisor	NCDC
Dr. Arti Bahl	Addl Director and HoD, Epidemiology	NCDC
Dr. Tanzin Dikid	Joint Director	NCDC
Dr. Meera Dhuria	Joint Director	NCDC
Dr. Ramesh Chandra	Deputy Director	NCDC
Dr. Anubhav Srivastava	Deputy Director	NCDC
Dr. Suneet Kaur	Deputy Director	NCDC
Dr. K Madan Gopal	Sr. Consultant (Health)	NITI Aayog
Dr. Anand Krishnan	Professor	Centre for Community Medicine, AIIMS Delhi
Maj. Gen. (Prof) Atul Kotwal	Executive Director	NHSRC, Delhi
Dr. Manoj Murhekar	Director	ICMR-NIE
Dr. Prabhdeep Kaur	Scientist F	ICMR-NIE
Dr. Tarun Bhatnagar	Scientist F	ICMR-NIE
Dr. Manickam P	Scientist F	ICMR-NIE
Dr. Vikasendu Aggarwal	State Surveillance Officer	Health Department, Uttar Pradesh
Dr. Milind Vardhan	Deputy General Manager	NHM, Uttar Pradesh
Dr. B.P. Subramanya	Deputy Team Lead, NPSP	WCO, India
Dr. Kevisetuo A Dzeyie	AEP coordinator	WCO, India
Dr. Meghna Desai	Country Director	CDC, India
Dr. Kristin VanderEnde	FETP, Resident Advisor	CDC, India
Dr. Sukarma Tanwar	WFD, Public Health Specialist	CDC, India
Dr. Rajesh Yadav	WFD, Public Health Specialist	CDC, India



National Centre for Disease Control

Directorate General of Health Services
Ministry of Health and Family Welfare

22, Shamnath Marg, Delhi - 110 054
<https://ncdc.gov.in>
E-mail: fetptrainingindia@gmail.com
Contact No. 011-20836054

Collaborators



icmr | **NIE**
INDIAN COUNCIL OF
MEDICAL RESEARCH | NATIONAL INSTITUTE OF
EPIDEMIOLOGY



**World Health
Organization**
India

