

Activity under the Regional Resource Training Centre Program

BACKGROUND



With a population of roughly 200 million, Uttar Pradesh (UP) is India's most populous state, accounting for approximately one-sixth of India's population¹. Maternal, neonatal, infant and child mortality rates are substantially higher in UP than in India. The maternal mortality ratio (MMR) in UP that was estimated at 285 per 100,000 live births for the period 2011-13² is at 197 per 100,000 live births for the period 2016-18³. One of the key strategies to reduce maternal and newborn deaths is to ensure the presence of a skilled birth attendant for every delivery. Planning and preparing mothers for institutional delivery is a critical activity that will ensure care, detection and management of complications during the delivery process.

Strengthening the core competencies of doctors in the First Referral Units⁴ (FRUs) in UP to ensure the quality of Comprehensive Emergency Obstetric and Newborn Care (CEmONC) services is important to improve maternal and newborn health outcomes.

REGIONAL RESOURCE TRAINING CENTRE PROGRAM



Uttar Pradesh Technical Support Unit (UP TSU) - a Unit implemented by India Health Action Trust (IHAT) in partnership with the University of Manitoba assisted the Government of Uttar Pradesh (GoUP) in developing an initiative called Regional Resource Training Centre Program. Under the program, faculty members of government medical colleges conducted clinical mentoring of government doctors (MBBS and Specialist doctors) on CEmONC services in FRUs in 25 High Priority Districts (HPDs) of UP. Each of the eight medical colleges was designated as a "Regional Resource Training Centre" (RRTC).

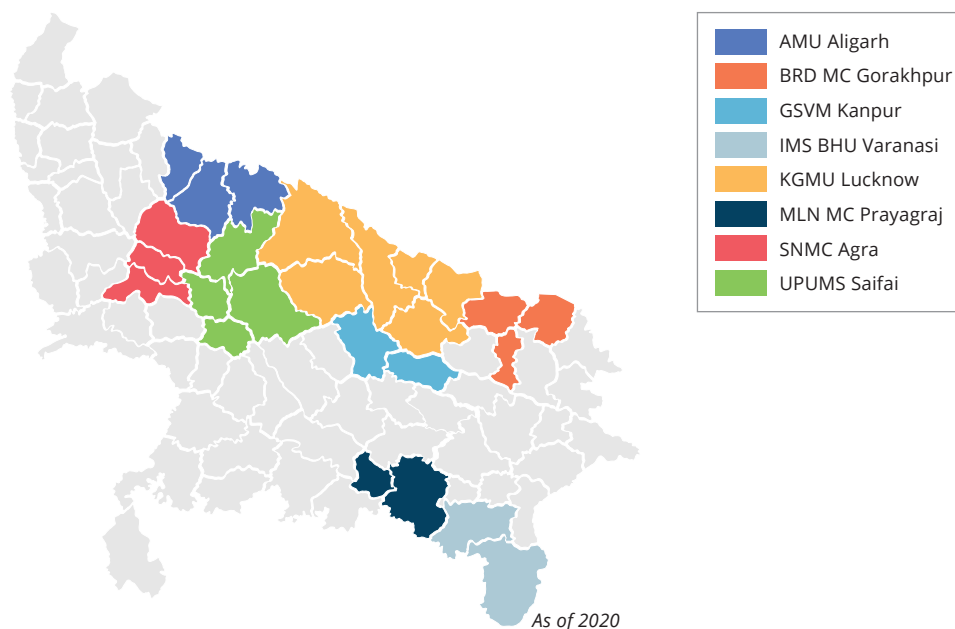


Figure 1: Existing RRTC Landscape: 8 Medical Colleges in 25 HPDs

¹Matra Evam Shishu Swasthya Sanrakshan Abhiyan-2015, National Health Mission (<http://upnrhm.gov.in/Home/MCHCampaign>)

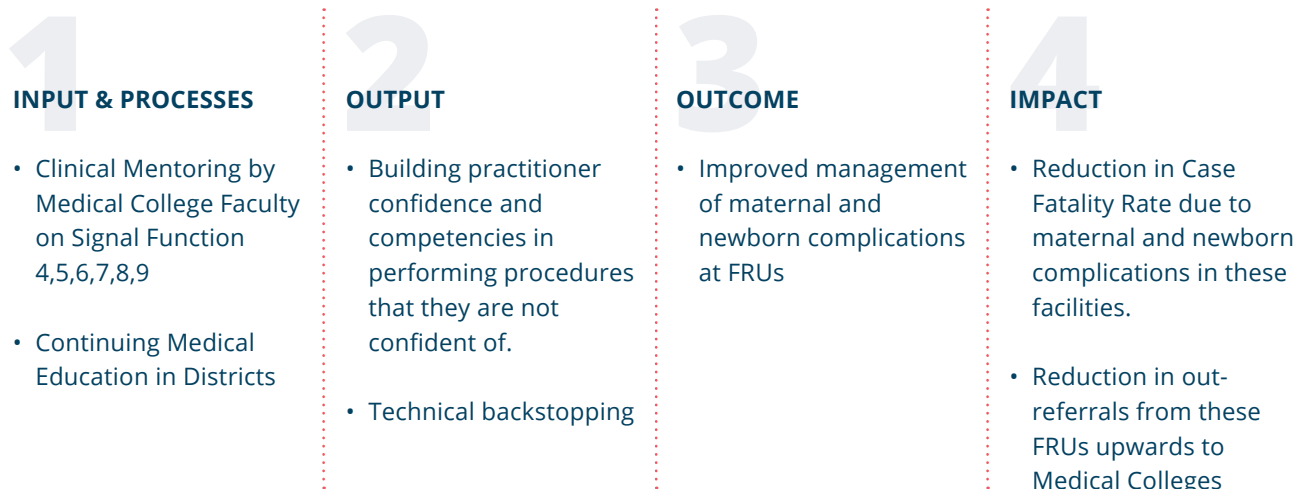
²The MMR Bulletin 2011-2013 (https://censusindia.gov.in/vital_statistics/mmr_bulletin_2011-13.pdf)

³Special Bulletin on Maternal Mortality in India 2016-18 (https://censusindia.gov.in/vital_statistics/SRS_Bulletins/MMR%20Bulletin%202016-18.pdf)

⁴Health facilities providing comprehensive emergency obstetric and newborn care services including deliveries by Caesarean section surgery and blood transfusion services are designated as First Referral Units in India

Strengthening of CEmONC services (Signal Function 1-9)⁵ at First Referral Units

Steps involved in strengthening the knowledge and competencies of doctors in FRUs:



1. Development of evidence-based training modules and training package
2. Induction orientation of all RRTC faculties
3. Training of Specialists/Medical Officers from identified 87 FRUs through their respective RRTCs
4. Onsite Mentoring visit: Medical College Faculties (Gynaecologist, Community Medicine, Anesthetist and Pediatrician) conduct quarterly visits to the identified 87 FRUs in 25 HPDs).



CONTINUING MEDICAL EDUCATION



During mentoring visits, it was found that most non-RRTC trained doctors and some RRTC-trained doctors had a low level of technical scores. Gaps in knowledge were identified during onsite mentoring of doctors in 87 FRUs of 25 HPDs using objective structured clinical examination (OSCE) checklists for appropriate treatment protocols of maternal complication management. Although they were mentored onsite, a need was felt for enhancing their knowledge, skills and professional performance through separate capacity building sessions. This was found necessary in the case of non-RRTC trained doctors and RRTC-trained doctors with Technical Scores less than 70%.

⁵Nine Signal Functions (SFs) form the basis for considering a health facility to be providing CEmONC services and functioning as an FRU: SF 1: Administration of Antibiotics; SF 2: Administration of Oxytocic Drugs; SF 3: Administration of Anticonvulsants; SF 4: Manual Removal of Placenta; SF 5: Removal of Placental Remnants; SF 6: Assisted Vaginal Delivery; SF 7: Newborn Care and Newborn; Resuscitation; SF 8: Caesarean Sections SF 9: Blood Transfusion services

Thus, the Continuing Medical Education (CME) was initiated at each RRTC Medical College, facilitated by the RRTC faculty and UP TSU. Participants in the CME sessions included doctors who scored <70% and newly recruited doctors posted at the FRUs.

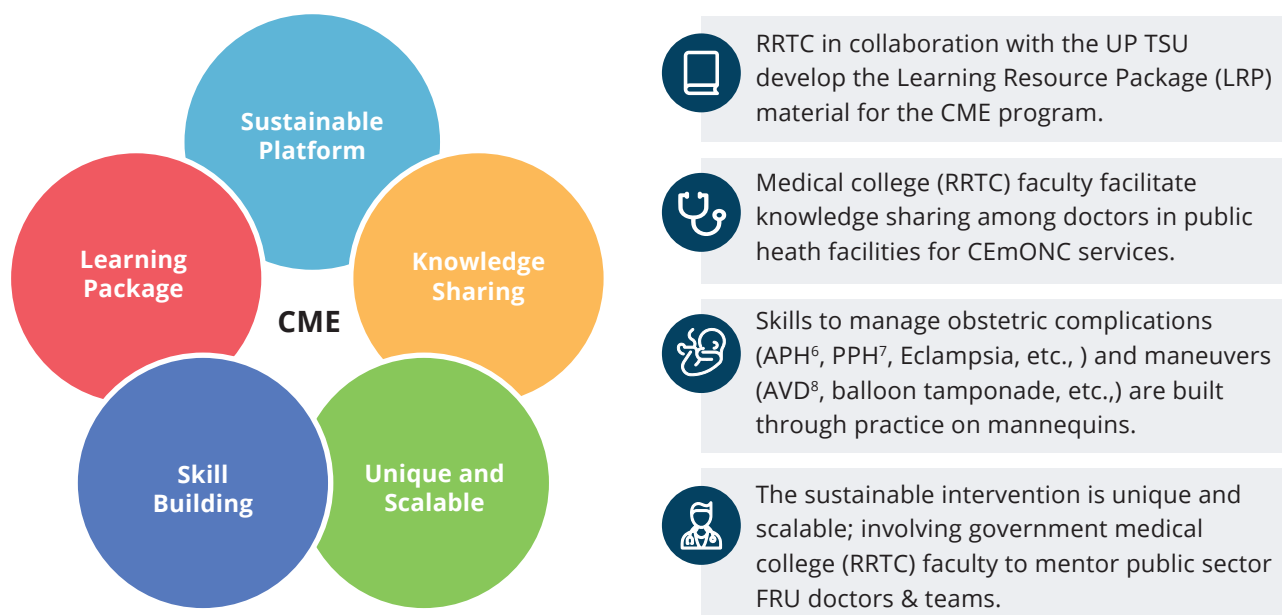


Figure 2: Features of CME

Onsite CME at the RRTC Medical Colleges

A day-long CME is held at the Medical Colleges. Half a day is dedicated to PowerPoint Presentations on common maternal complications and their management protocols according to Government Guidelines. The second half of the day is dedicated to hands-on, simulation-based clinical mentoring on complication management to build practitioner confidence.

Topics related to Maternal Health covered during the sessions:

- Management of PPH (Medical, Compression, surgical and newer techniques on management)
- Management of Severe Preeclampsia / Eclampsia (Magnesium Sulphate and Antihypertensive)
- Management of Prolonged/Obstructed Labor (Induction of labor, Assisted Vaginal Delivery and C-section)
- Management of Anemia (Iron Sucrose infusion and Blood Transfusion)
- Breech Delivery, Shoulder Dystocia, Twins, Premature Rupture of Membranes, Pre-Term labor, Shock, Cord Prolapse and Fetal Distress.

⁶APH: Antepartum hemorrhage

⁷PPH: Postpartum hemorrhage

⁸AVD: Assisted Vaginal Delivery

Online CME

The RRTC program envisages the concept of onsite in-person CME at Medical Colleges; however, due to the impact of the COVID-19 pandemic, the CME sessions were conducted online.

Strategy for the virtual mode of training:

1. The platform for online training: Video Communications Application - Zoom
2. Implementation Strategy:
 - Contact Nodal Office at Medical College
 - Issue of letter to CMO and CMS of districts
 - Identification of Medical Officers/Specialists from each district
 - Finalization of the list of participants from each district with CMO/CMS
 - A batch of 10 participants is formed for online CME sessions
 - Online CME sessions are conducted for all the doctors based on the technical scores. MBBS doctors and specialist scoring < 70 % after each round of onsite mentoring visit by Medical College faculty
 - Planning for the CME session is shared with faculty by the UP TSU - RRTC team. The agenda includes the date of CME, session topic, name of the faculty and the methodology.
 - The resource package for these sessions is a case study, videos and checklists of various topics.
3. WhatsApp groups are created to share online session links, topic-wise participants list, date & time, session topic and other relevant information
4. Evaluation (Scoring): One-to-one OSCE scoring of all the doctors during CME is done using the OSCE checklist.

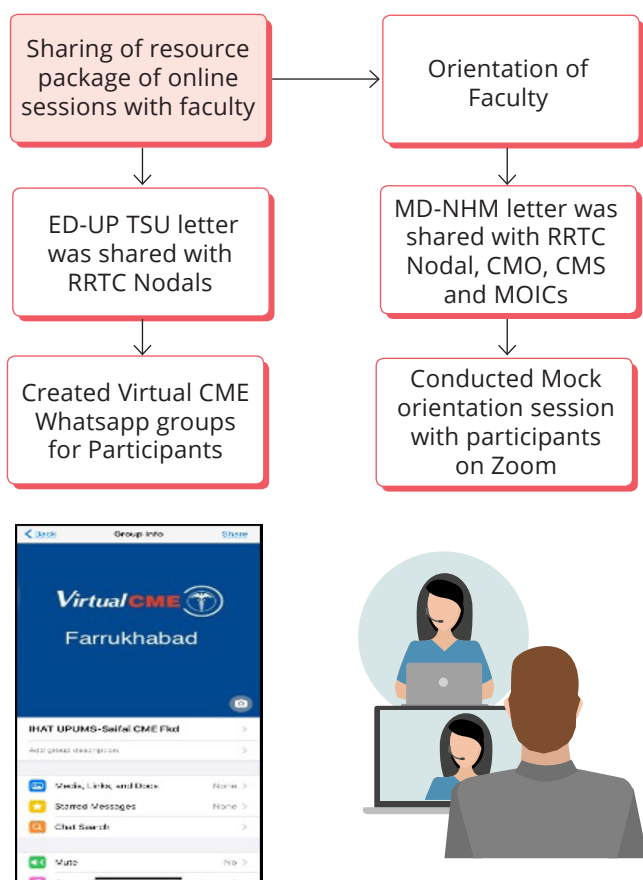


Figure 3: Roll out of On-line sessions

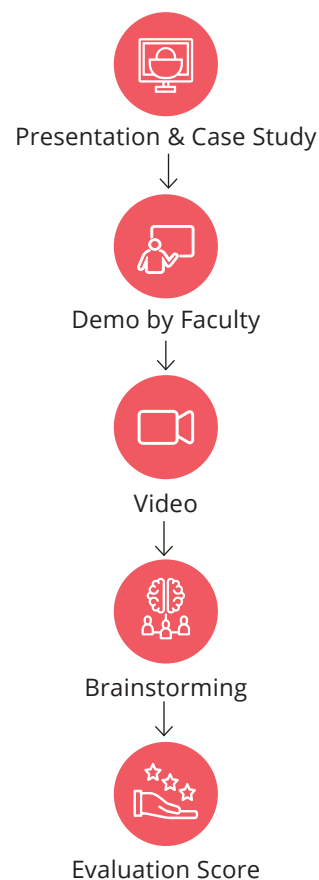


Figure 4: The flow of virtual mode of CME sessions

The resource package for online CME includes case studies, presentations, maternal complications related videos and online demonstration by Faculties.



Online Demonstration by the Faculties

58 Online CME sessions completed on Maternal Health topics (June 2020 - Aug 2020)

Impact of Online CME Sessions

- Enhanced participation and involvement of Public Health Doctors
- Brainstorming on each topic was done 1-2 hour between faculty and service providers
- Development of virtual resource package to enhance the capacity of doctors to improve CEmONC services which were also used by Medical College faculty for Under-Graduates & Post-Graduates.

Advantages of online sessions

- Doctors participate with eagerness and interest
- Involvement of service providers is better than onsite activity
- Online mentoring is conducted topic-wise in one session, that is, one-day activity is converted into four sessions, making it possible to conduct detailed individualized upskilling of service providers
- Online post-mentoring evaluation is done one-to-one by the RRTC faculty
- Public Health Doctors discuss real-time complicated cases to get solutions from faculty.
- Doctors have shown interest in using partographs to provide supportive supervision to Staff Nurses to monitor labor. Faculty gives them exercises to fill the partograph for cases within their facilities and shares feedback with them on WhatsApp.
- Participants can join the missed session in another batch of the respective Medical College or at any other Medical College

Case sheet & filled Partograph for Labor monitoring

“We are able to refresh our knowledge regularly and improve our management practices after the CME trainings as a part of the RRTC program. Previously, we used to treat severe anemia by blood transfusion only, but we are managing 2nd and 3rd trimester severe anemia without blood transfusion with the knowledge and initiation of iron sucrose. We are also now able to operate on pregnant women in obstructed labor. Due to the hands-on training provided by Dr Seema Tandon from UP TSU, we are conducting deliveries by kiwi ventouse and forceps with full confidence. The efforts of the Medical College faculty during regular mentoring visits have enabled us to practice other maneuvers and manage PPH cases in our facility, leading to a decline in the number of PPH cases. I would like to thank the RRTC team for this programme and wish that such training programmes are conducted regularly in the future also so that we are always updated in best practices for management of maternal complications to reduce MMR and IMR.”

CME Trainee Dr Kamlesh Kumari,

*EmOC, District Women's Hospital,
Sitapur, Uttar Pradesh*

“Online CMEs by UP TSU/RRTC are really a wonderful step to continue trainings and encourage learning during this COVID-19 pandemic era.”

RRTC Faculty Dr Shaily Agarwal,

*Associate Professor, GSVM Medical College,
Kanpur, Uttar Pradesh*

“The session was very well organized. It was an interactive one.”

**RRTC Faculty
Dr Shaheen,**

*Professor, Jawaharlal Nehru Medical College,
Aligarh Muslim University, Aligarh, Uttar Pradesh*

“I felt that the online CMEs were really great. As we covered only one topic at a time for medical officers who had been identified as needing guidance in that particular module, the messages were better retained and more useful. Due to a small number of trainees, we could ensure good interaction also. Giving small doses of directed training is always more beneficial than loading the participants with large doses of knowledge. Overall, it would be a great idea to continue online CMEs even post COVID-19 pandemic as this mode is extremely time effective.”

**RRTC Faculty
Dr Anjoo Agarwal,**

Professor, King George's Medical University, Lucknow, Uttar Pradesh



One-to-one mentoring during CME



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