Establishment of a triage system through a Tele- Training program (TTP) at rural secondary care level hospital

Department of Emergency Medicine, JPNATC, AIIMS, New Delhi

WHO Collaborating Centre For Emergency and Trauma Care, South East Asia Region

Geeta Sinha, Roopa Rawat, Neha Bisht, Dr. (Prof.) Sanjeev Kr Bhoi, Dr. Tej Prakash Sinha, Sushmita Chauhan

World Health Organization
REGIONAL OFFICE FOR South-East Asia

BACKGROUND

- Quality emergency care system (q-ECS) is in nascent stage in India.
- Lack of skilled human resources, processes, sub-optimal infrastructure,& distant referral centers are major bottle necks in delivery of quality emergency care service.
- Capacity building is important low-cost high impact solution but difficult to disseminate in remote areas.
- Triage is one of such intervention which proven to be economic and effective but less practiced in India.
- Tele-education offers a pragmatic and reasonably effective alternative to conventional.
- Tele-Training Programs (TTP) may improve quality of patient care but limited data in rural areas.
- This study was conducted to assess the effectiveness of TTP in emergency department (ED) triage implementation in a rural secondary care hospital.

OBJECTIVE

- To know the current status, barriers and facilitators of emergency triage system
- To co-design and implement the triage system through tele-training program (TTP) at rural secondary care level hospital
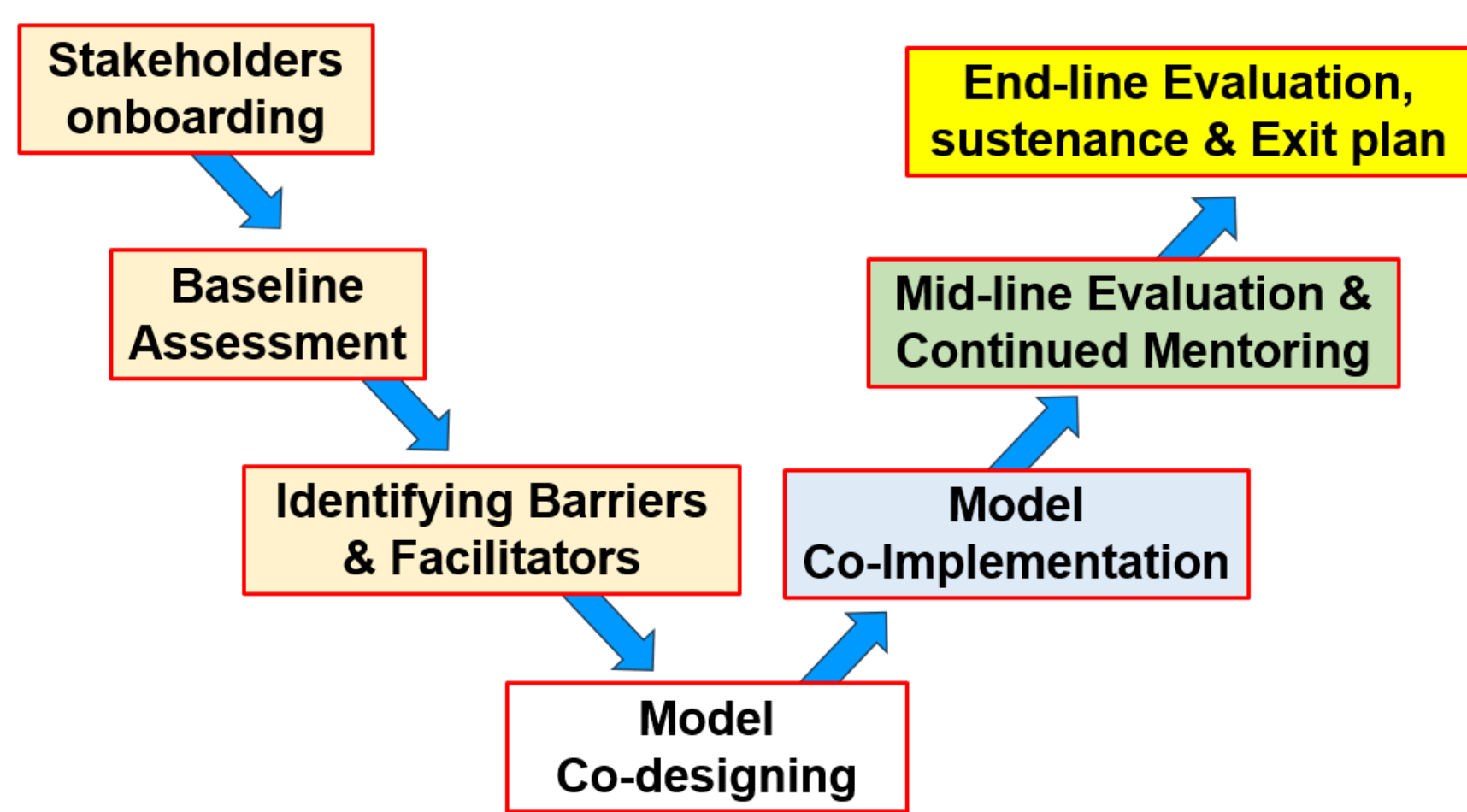
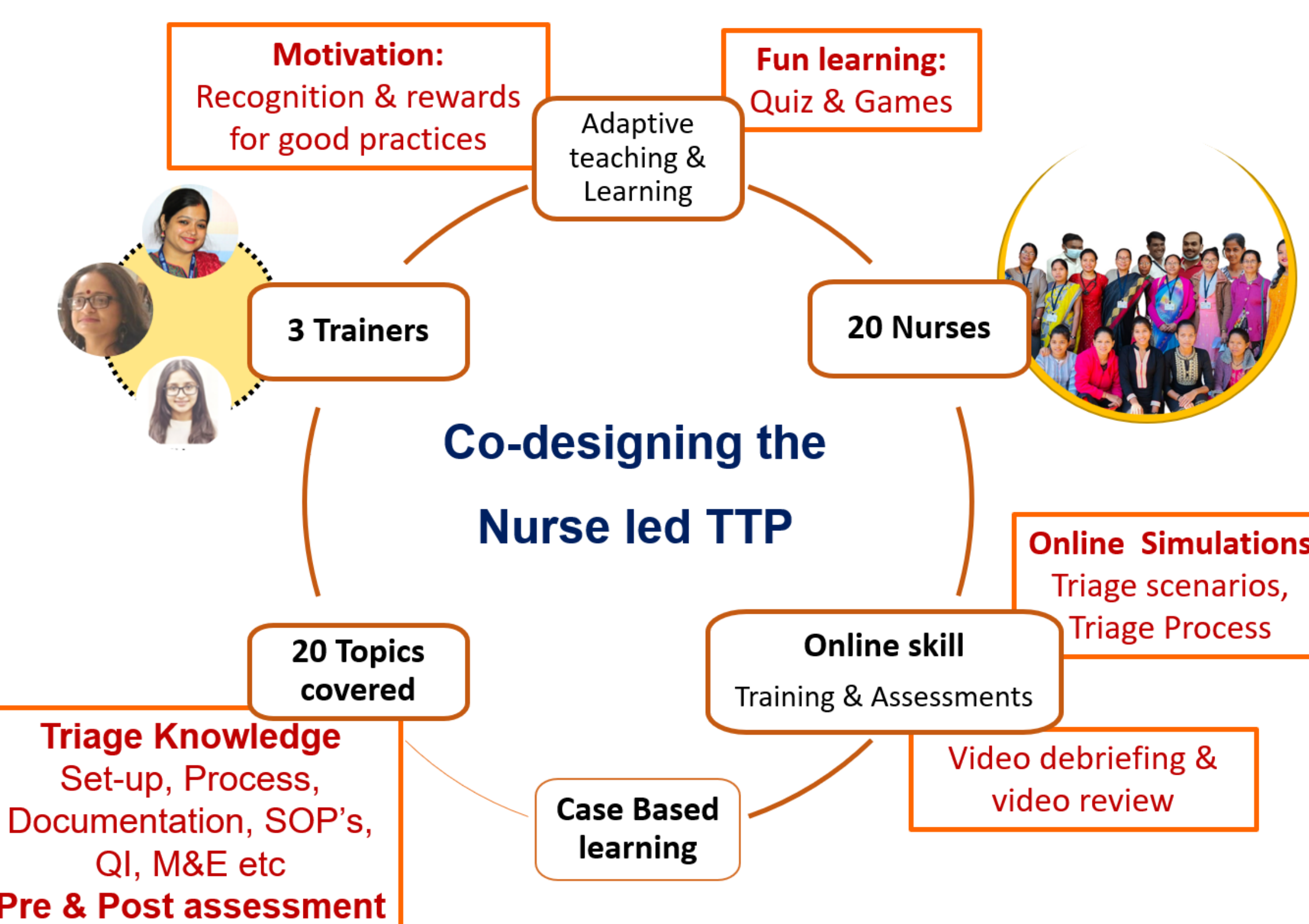## METHODOLOGY

Study Method : Mixed-method study

Study site – SEARCH (Society for Education, Action and Research in Community Health, Gadchiroli, Maharashtra, India)

Study Duration- April 2020 – August 2021
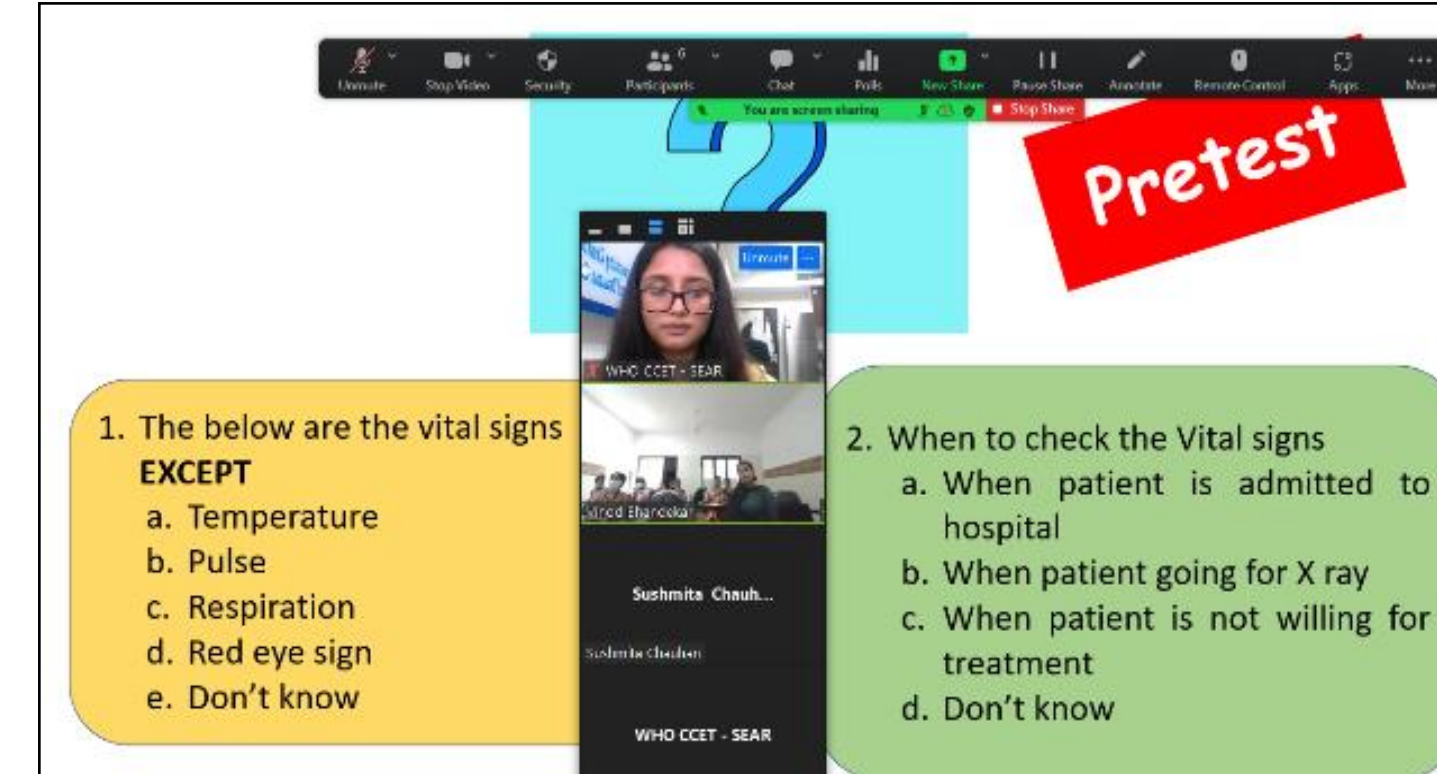
Methodology (Implementation Plan)

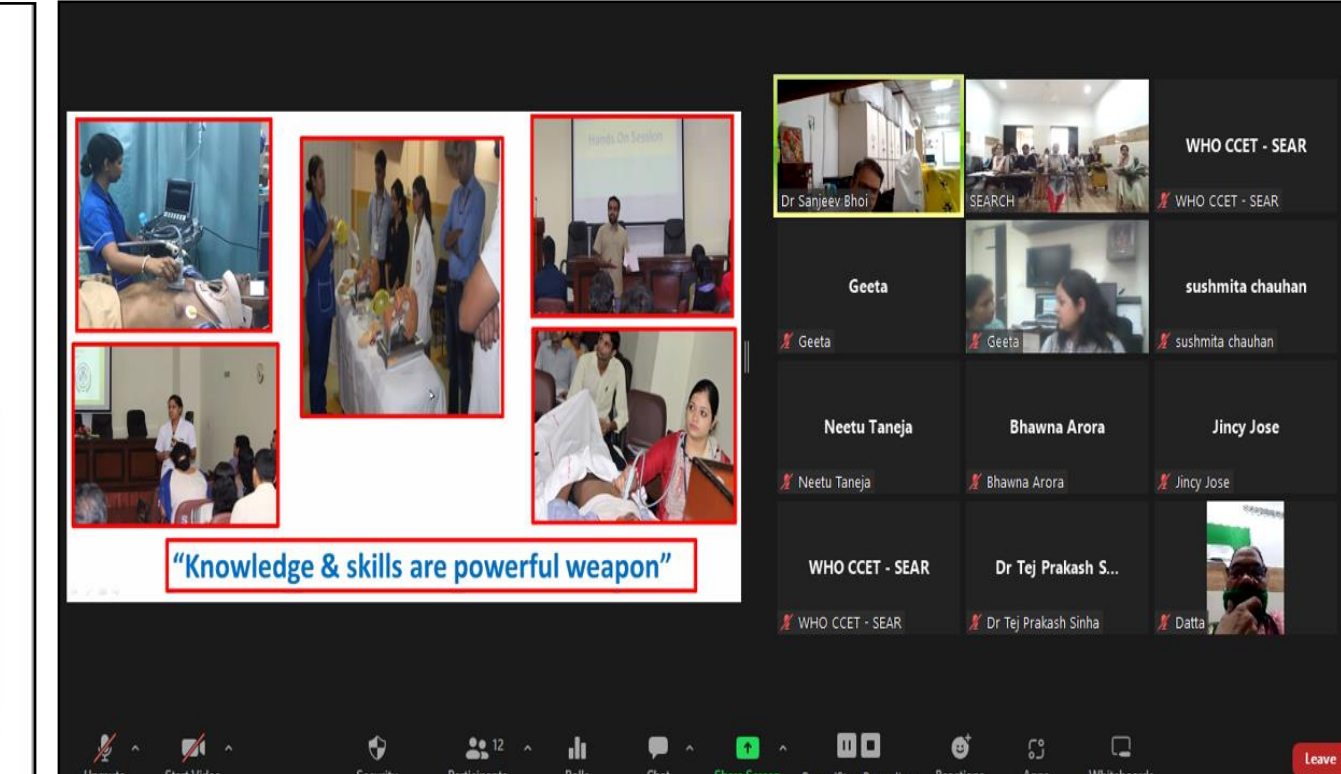| Challenges	Solutions
Language Barriers	Multilingual teaching with translation with the help of SEARCH coordinators
COVID -19 Pandemic	Adhering to social distancing guidelines in the classroom, sharing recorded sessions
Lack of medical education background	Using simplified content that includes fundamental scientific explanations
Timing issues	Keeping flexible session timings & sharing recorded session
Poor documentation	Implementing regular mentoring, coordination & communication with nurses
Less Technology-Friendly	Providing assistance & guidance on technology usage through SEARCH nurse coordinators

Co-designing the Nurse led TTP

- Motivation: Recognition & rewards for good practices
- Fun learning: Quiz & Games
- Adaptive teaching & Learning
- 3 Trainers
- 20 Nurses
- Online Simulations Triage scenarios, Triage Process
- Online skill Training & Assessments
- Video debriefing & video review
- Case Based learning
- 20 Topics covered
- Triage Knowledge Set-up, Process, Documentation, SOP's, QI, M&E etc Pre & Post assessment

CO - IMPLEMENTATION

Developing local functional team
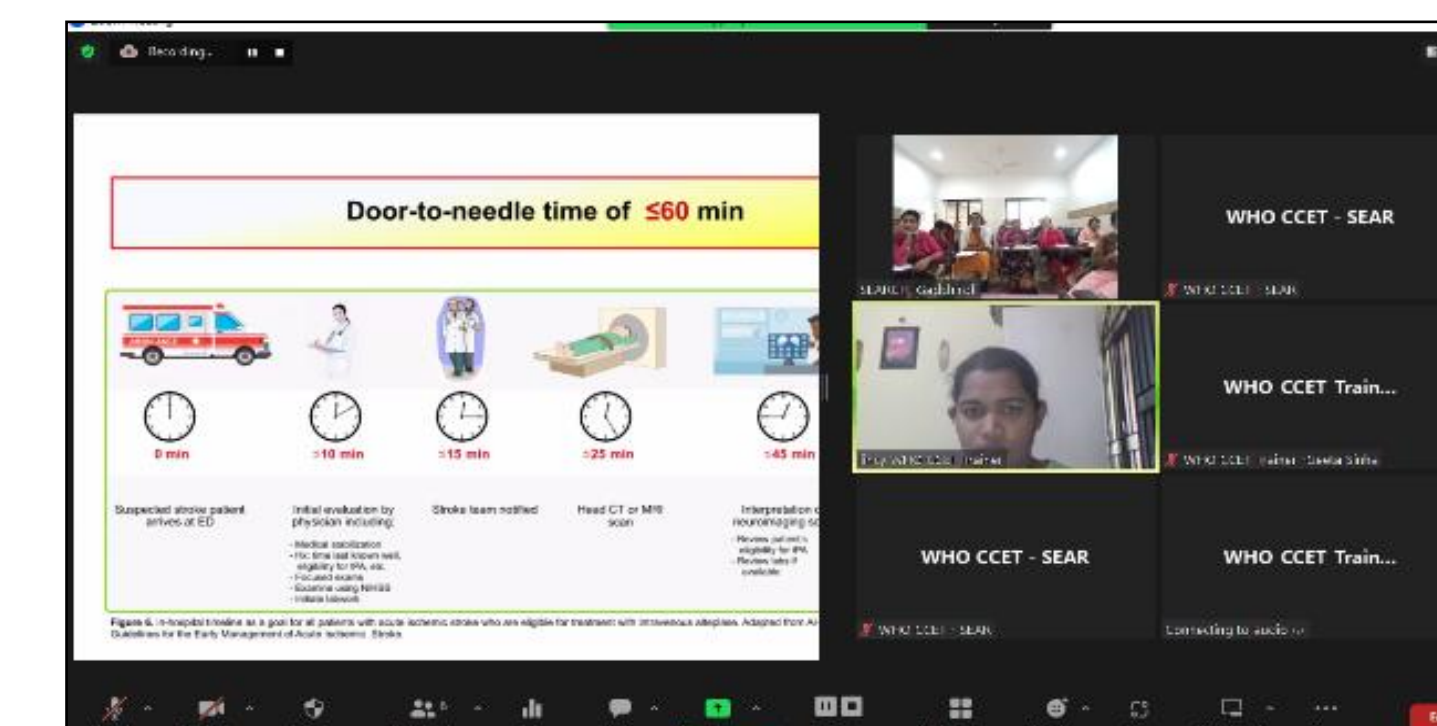

Assessments

Online mentoring and motivation

Training Of Trainers
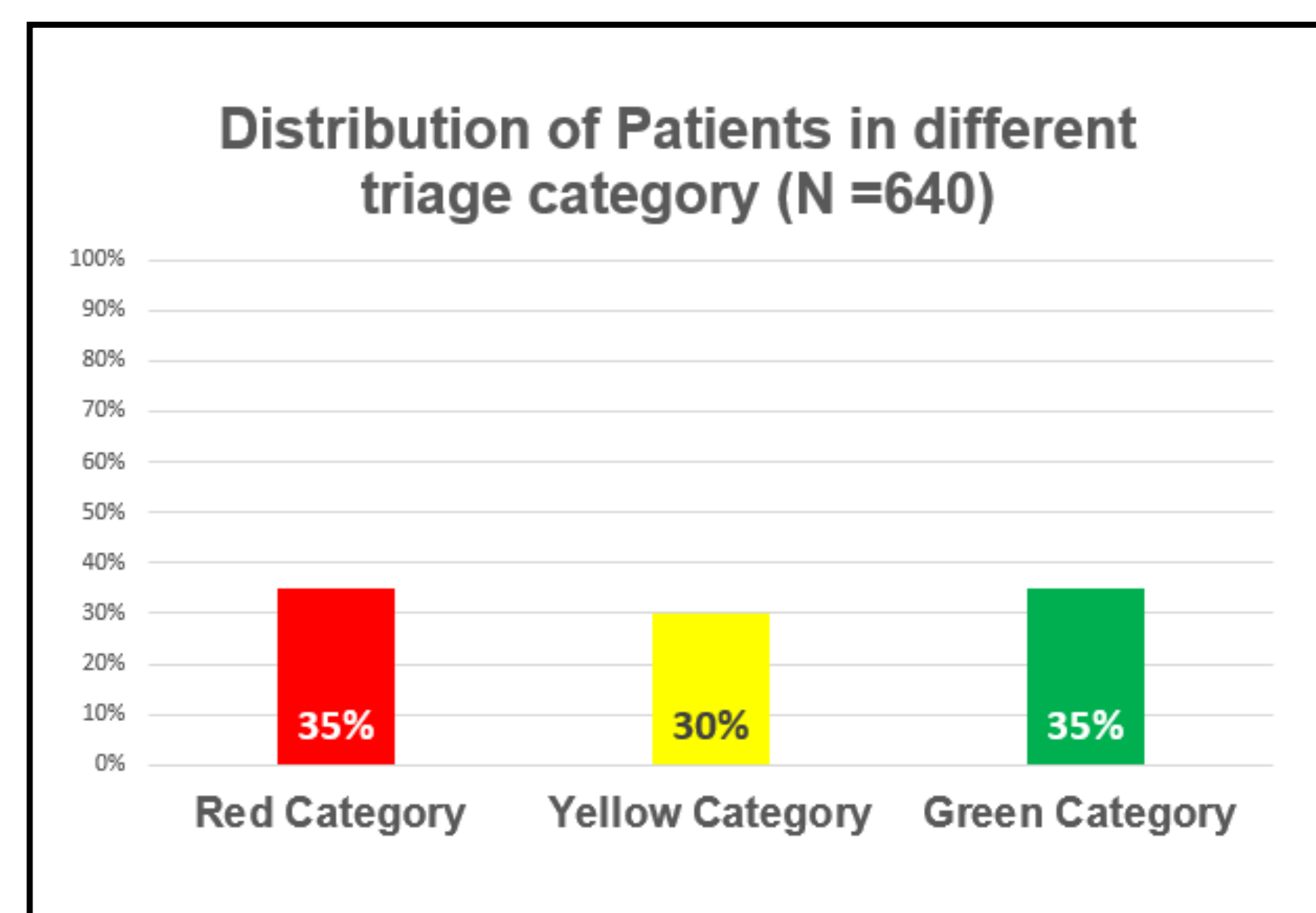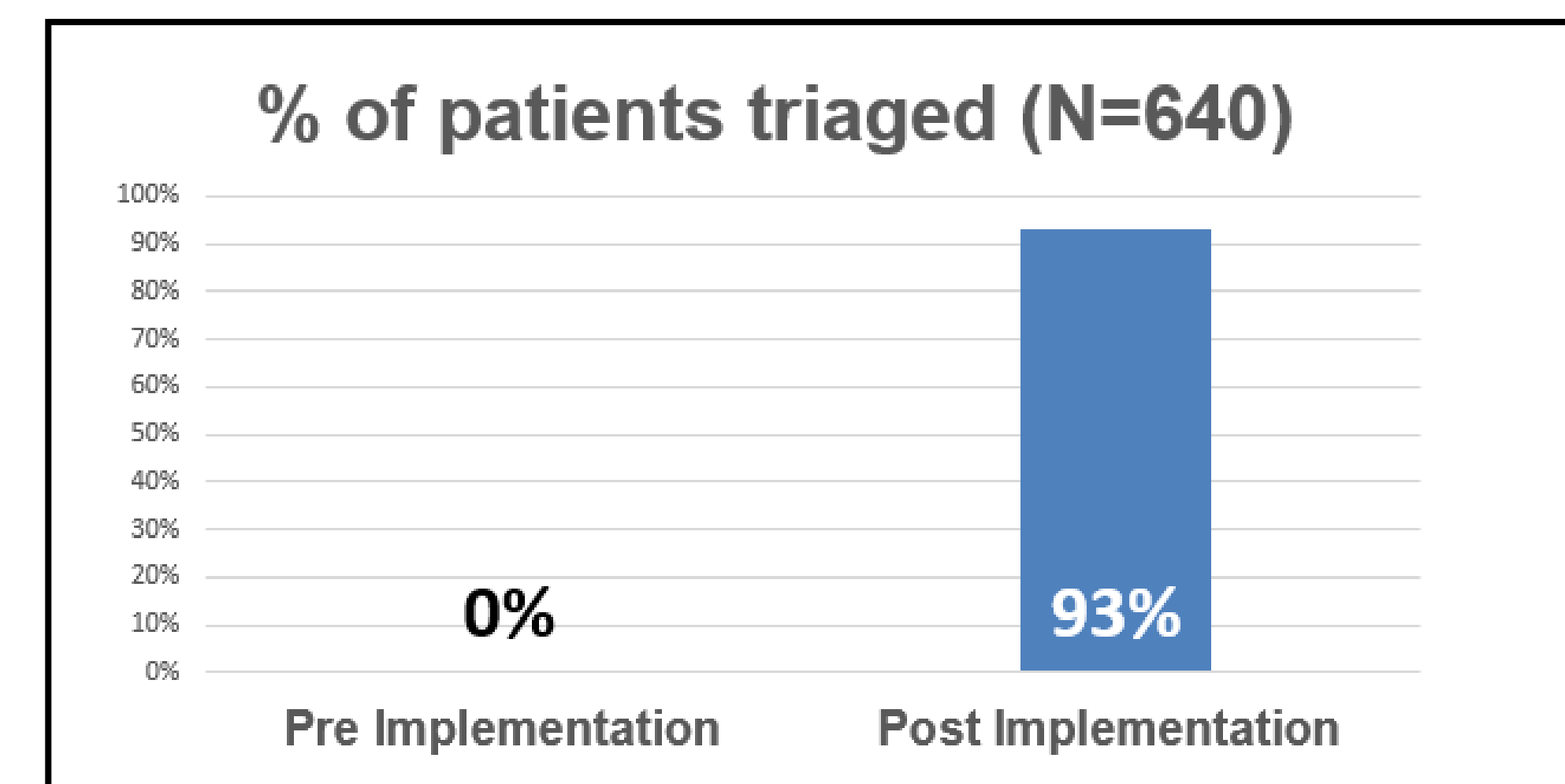

Online Knowledge Sessions

Online Skill Sessions

Case-based discussions

Creating local trainers

RESULTS

Disease Burden
April 2018- March 2020

n - 993

Snake bite	166
HT & Heart	118
Pneumonia	80
DKA	51
Alcoholic	47
Seizure	41
Dengue/Malria	38
CKD	25
Stroke	17
Anemia	17
Covid	17
RTA	13

% of patients triaged (N=640)

Pre Implementation: 0%
Post Implementation: 93%

Distribution of Patients in different triage category (N =640)

Red Category: 35%
Yellow Category: 30%
Green Category: 35%
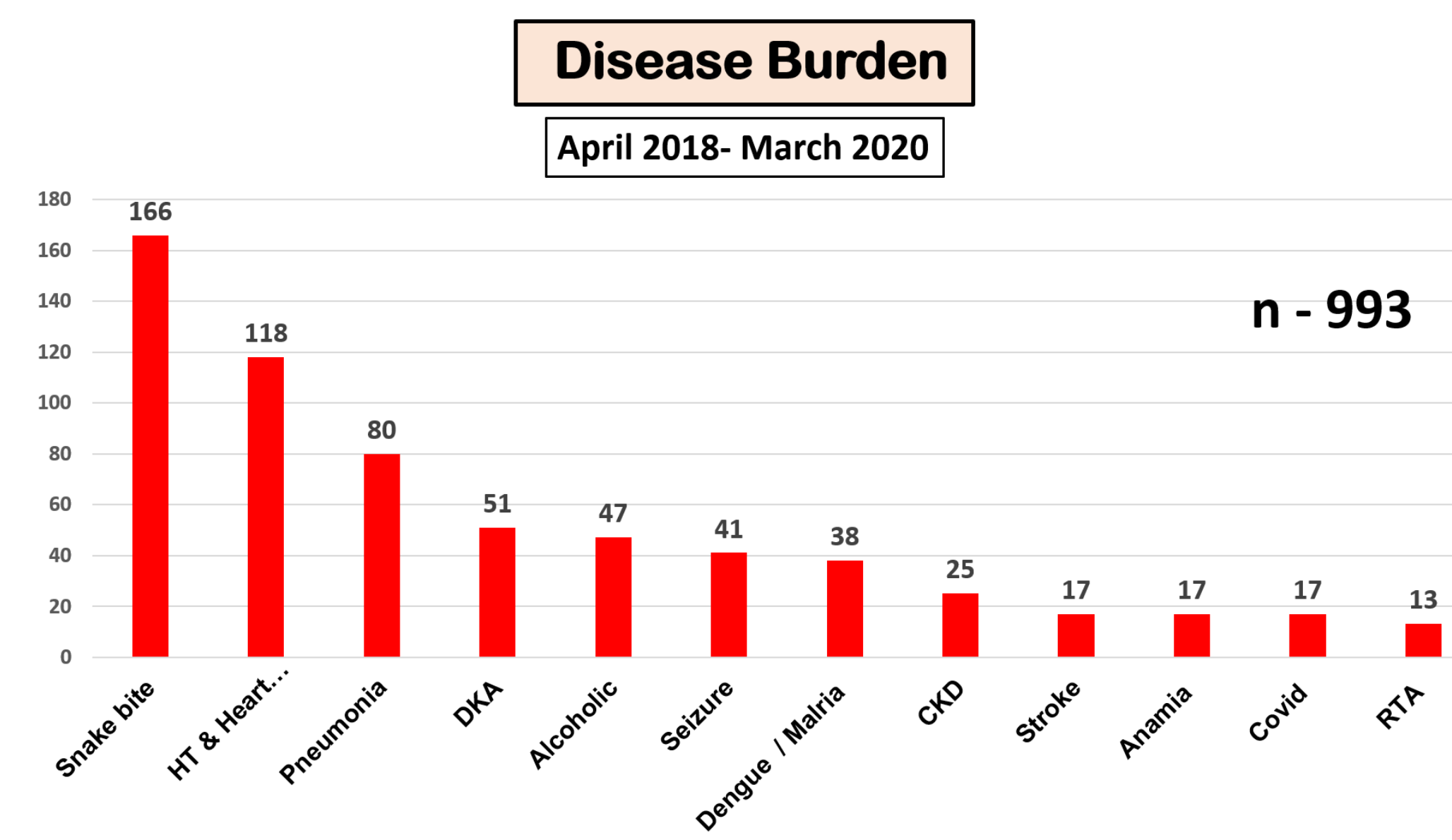
- **85%** improvement in overall knowledge
- The referral system and indoor admissions has improved.

Trained HR

Documentation

Policy & Protocol

Reorganization

DISCUSSION

- Mostafa B et.al found; lack of clinical competency and psychological capabilities as major barriers affecting triage quality. our study where lack of basic medical knowledge and language of communication were the major barriers
- The training provided an initial improvement in knowledge, but no significant improvement in triage.
- Shimma M et.al. found jump from 0% to 64.40 % in knowledge of triage after implementing triage training4 , whereas our study has shown jump to 85%.
- CPR training by tele-education was not inferior to conventional classroom training.
- Keri et al. is also having similar finding that telemedicine at individual centers are beneficial and scalable to country level.

CONCLUSION

Tele-Training- program facilitated to improve the triage knowledge and implement triage system to improve the quality of emergency patient.