



Emergency Care Delivery – In Pakistan

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Every minute....

120 people die due to emergency diseases globally
(80 in low and low-middle income countries)

How many emergency doctors?



Karachi on Emergency Care



Karachi is the 3rd largest city and economic hub. Population approx. 24 million



Wide socio-economic gap within Karachi's population; most people living in slums



Regular outbreaks e.g. Infectious Disease, gun violence, violent strikes



Lack of efficient transport system leads to higher road usage and accidents

Indus Health Network



- Unique initiative in Pakistan
- Provides quality, free-of-cost healthcare for all



The Indus Hospital (TIH), Korangi Campus - Karachi







Triage Area



ED Patient Volumes

ED data from August to October 2019

Category	No. of Patients
Triaged in Adult ED	39,551 (439)
Triaged in Pediatric ED	19,389 (215)
Estimated Triaged Per Day	654
Directly Referred to Filter Clinic (Adult)	3,492
Directly Referred to Filter Clinic (Pediatric)	1,650
Reviewed in Adult ED	32,578 (361)
Reviewed in Pediatric ED	15,377 (171)
Estimated Reviewed in ED Per Day	532

ED Patient Volumes

Patient Count as per Categorization from August to October 2019

Category	Adult	Pediatrics
P1	1,352 (15)	450 (5)
P2	9,122 (101)	6,406 (71)
P3	17,169 (190)	7,159 (80)
P4	4,935 (55)	1,362 (15)



A background image showing medical training. In the upper part, a person's hand is using a syringe to draw red liquid from a small vial. In the lower part, a medical training mannequin is visible, lying down with a blue tube inserted into its neck. A semi-transparent dark grey banner with white text is overlaid across the center of the image.

Training and Capacity-building

Residency Program



5-year Residency
Program initiated
in 2018



Nationally accredited
by College of Physicians
& Surgeons Pakistan
(CPSP)



Curriculum design
based on
international and
CPSP standards



Divided into
Intermediate (2 years)
and Advanced (3
years) modules



7 competencies: Medical
Expert, Communicator,
Collaborator, Professional,
Scholar, Healthcare,
Advocate, Leader



To-date 12 residents
enrolled

CPEM comprises of two cohorts:

- Didactics-only course (CPEM-D) for medical officers from Karachi's hospitals
- Clinical course (CPEM-C) for medical officers from The Indus Hospital

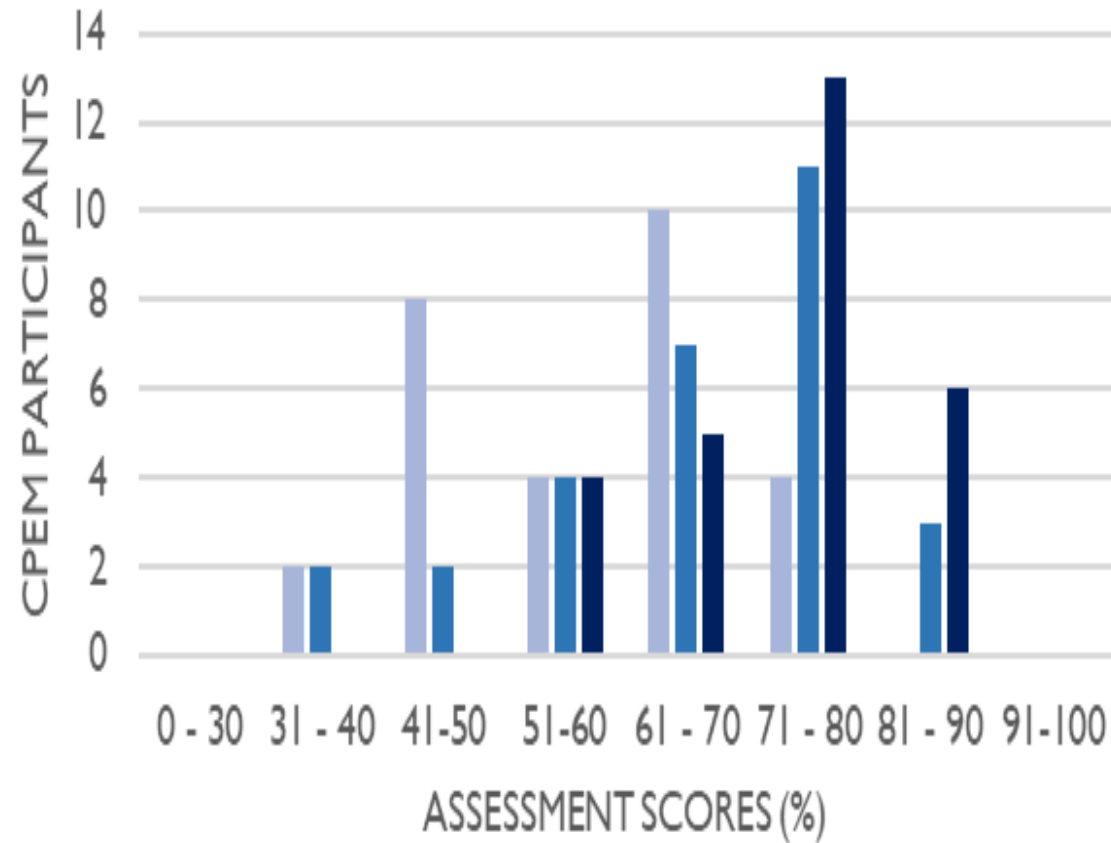
–In July 2019, 27 trainees (out of 32 originally enrolled) successfully graduated the program.

–For CPEM's second training cycle, 29 participants from 8 different hospitals have been enrolled





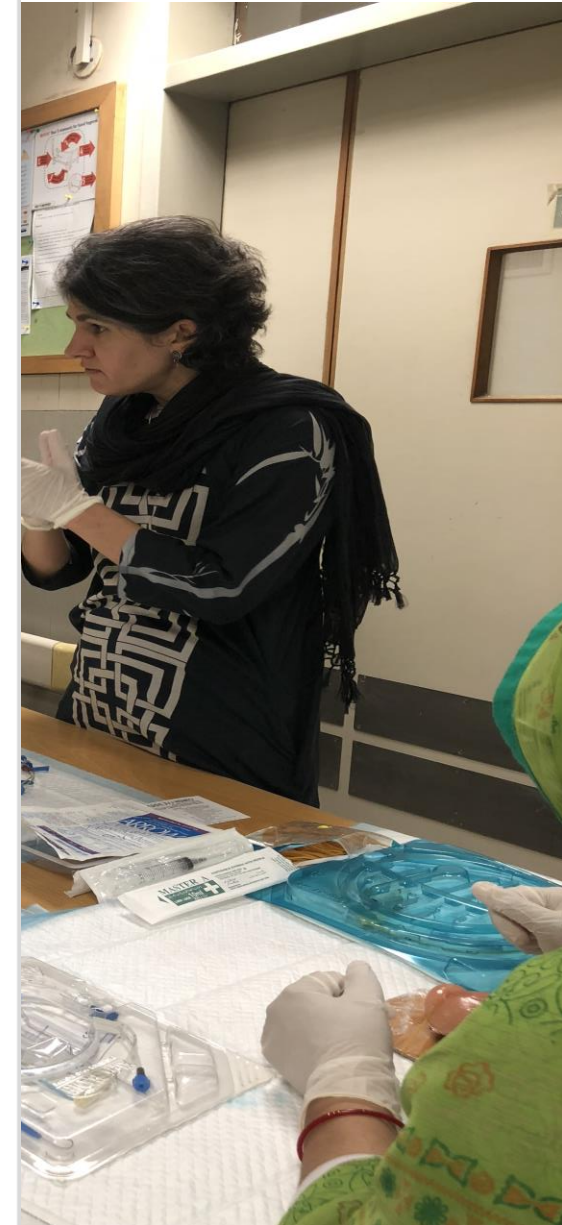
Distribution of Participant Assessment Scores



■ No. of Participants (Pre-Test)

■ No. of Participants (Mid-term)

■ No. of Participants (Final)





Collaborative Advanced Trauma Care (CATC) Course



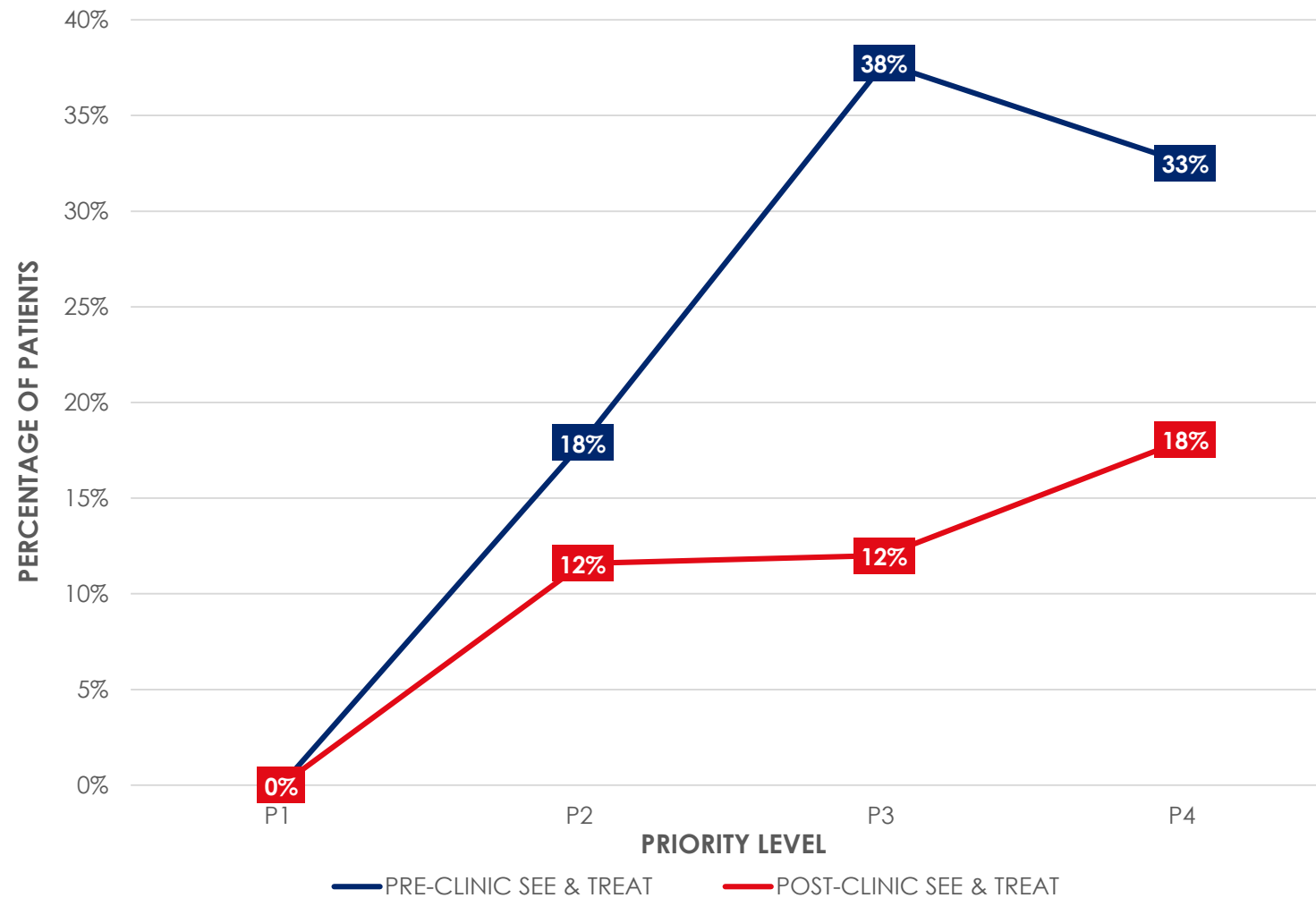
Emergency Department Overcrowding



See-and-Treat Clinic



Comparison of Pre- and Post-Clinic Patient Volumes





Upcoming Projects

- CME workshops:
 - Ultrasound
 - Airway
 - Trauma
 - Procedural sedation
 - Ethical issues in the ED
- Antibiotic Stewardship project
- Formulation of an in-hospital Chest Pain Pathway



Research Projects

- Heat wave audit- Risk factors for deaths in the June 2015 Heatwave in Karachi
- HEAT (Heat Emergency Awareness and Treatment) – inter-hospital collaborative project
- Pan-Asian Resuscitation on Out-of-Hospital Cardiac Arrest – inter-hospital collaborative project
- One-year In-Hospital Trauma Audit – in collaboration with Emory University
- 5-year TIH ED Mortality Audit
- 5-year Audit of Out-of-hospital Cardiac Arrest Outcomes
- Low-cost Phantom Models for Ultrasound-guided Procedures
- KAP Survey on Trauma Team Approach
- Social Emergency Medicine: A Pakistan Perspective



Thank you!