Implementing and Evaluating a Sustainable Prehospital Trauma Training Program During the Ukraine-Russia War

HARVARD HUMANITARIAN INITIATIVE

International Medical Corps

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Introduction

- **Conflict Impact:** The 2022 Russian invasion of Ukraine sharply increased trauma-related civilian casualties and deteriorated prehospital infrastructure.
- **Low-Resources:** A vacuum of emergency clinicians emerged as frontline casualties surged, leaving critical gaps in civilian care.
- **Our Response:** In response, an urgent trauma training program was initiated to better equip local first responders and emergency personnel.

Phased Approach

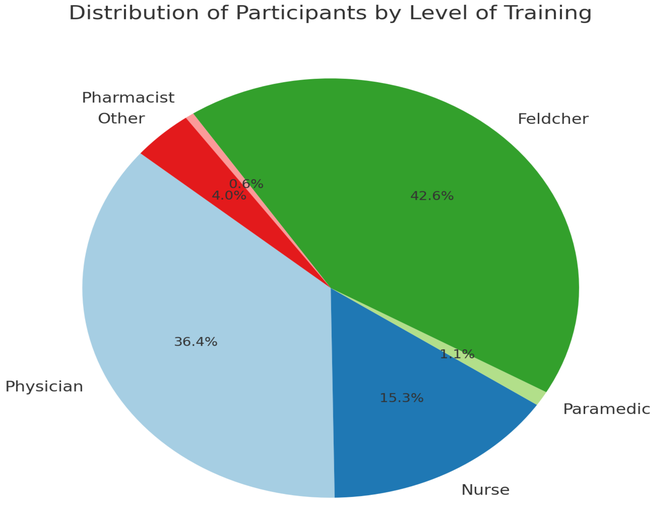
Phase 1: Taught exclusively by international instructors using bidirectional interpretation.

Phase 2: Train the Trainer courses taught by internationals to Ukrainian instructor candidates.

Phase 3: Taught by Ukrainian instructors with mentorship and guidance from international instructors.

Phase 4: Courses led exclusively by Ukrainian instructors with light touch supervision from internationals.

The focus of this poster



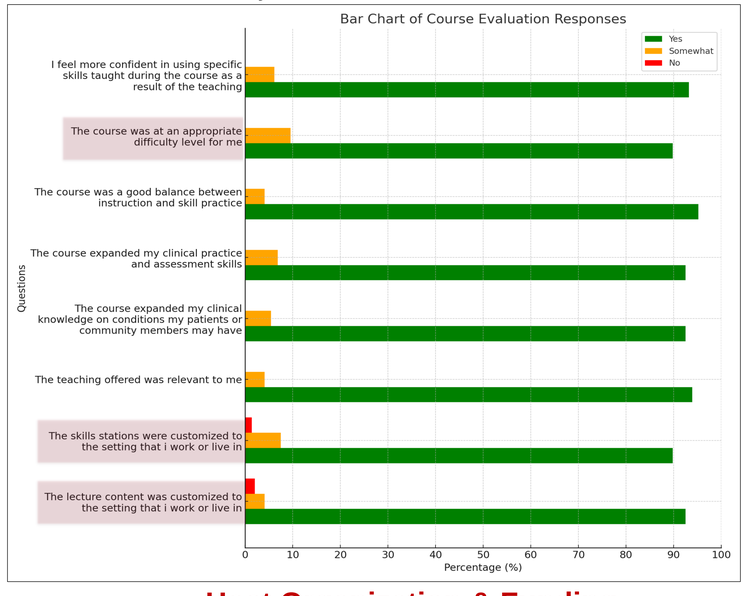
Objective

Rapidly deployable and locally sustainable.

Develop a rapidly deployable prehospital trauma training program tailored to the conflict's low-resource, austere, and diverse clinical level, with the goal of complete transition to local control.

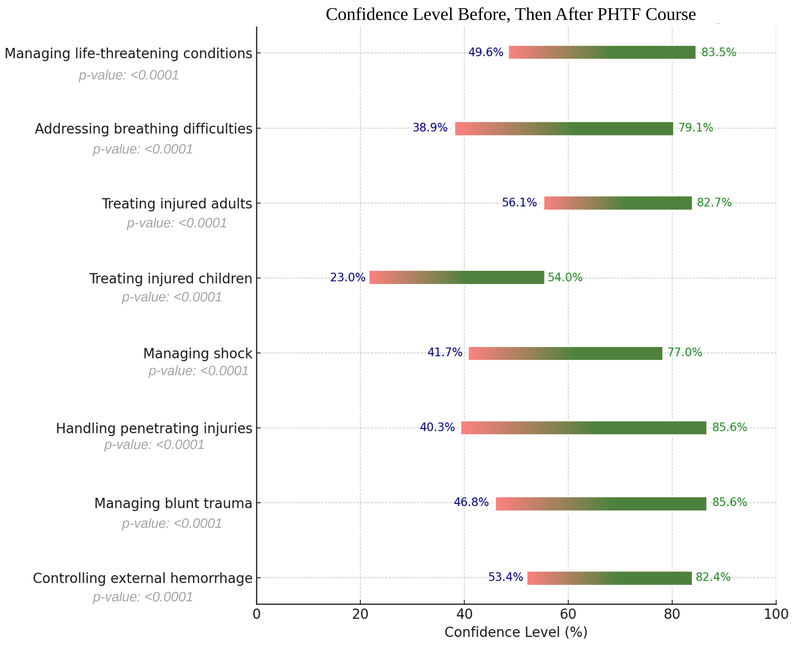
Methods

- **PHTF Training:** Conducted in seven Ukrainian oblasts since September. 2022. Focused on identifying, recruiting, and training high-performing participants to become PHTF instructors.
- **Instructor Development:** Recruited high-performers were mentored by international instructors. Progression from supervised teaching with bidirectional interpretation to independent instruction with light touch supervision.
- **Participant Assessment:** Knowledge and confidence levels assessed through pre- and post- course testing and self-assessments.
- **Data Analysis:** McNemar's test and Wilcoxon matched-pairs signed-rank test used for data analysis. A "Not Human Subject Research" determination was made by the Mass General Brigham Institutional Review Board. Written ethical approval was provided by the Dnipro State Medical University and the Ternopil National Medical University.



Results

- **Participant Demographics:** 178 participants completed Ukrainian-led PHTF courses (Phase 4).
- **Knowledge Improvement:** Knowledge scores increased for *94.2%* of participants, averaging a *20%* increase ($p<0.05$)
- **Future Training:** *29.5%* of participants requested POCUS training. *48.9%* requested psychological first-aid.



Conclusions

- **Impact:** The implementation of the PHTF program led to a significant increase in both knowledge and confidence among participants.
- **Empowerment:** By recruiting, training, and mentoring high-performers to be instructors, the program ensures ongoing training and lays the foundation for expanding into underserved areas.
- **Future Application:** The success of Phase 4 highlights PHTF's potential as a model for sustainable, locally-driven trauma education, capable of rapid deployment.
- **Resilience:** By transitioning to local control, the program sets a standard for sustainable prehospital trauma education, building lasting impact even when deployed quickly.

Host Organization & Funding

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