

Introduction

- Perinatal women experience poor maternal outcomes during natural disasters.¹⁻³
- The majority of available OB-triage tools are utilized in the prehospital setting or at the time of hospital admission.²
- OBTRAIN (*Obstetric Triage by Resource Allocation for Inpatient*) uses rapid assessment and color-coded tagging to determine the most appropriate transport mode for evacuation.^{1,3}
- Disaster planning involving an OB-specific triage algorithm, advanced knowledge of the levels of maternity care (LOMC) classifications, and established disaster roles can facilitate a safe and rapid response.¹⁻³

Purpose

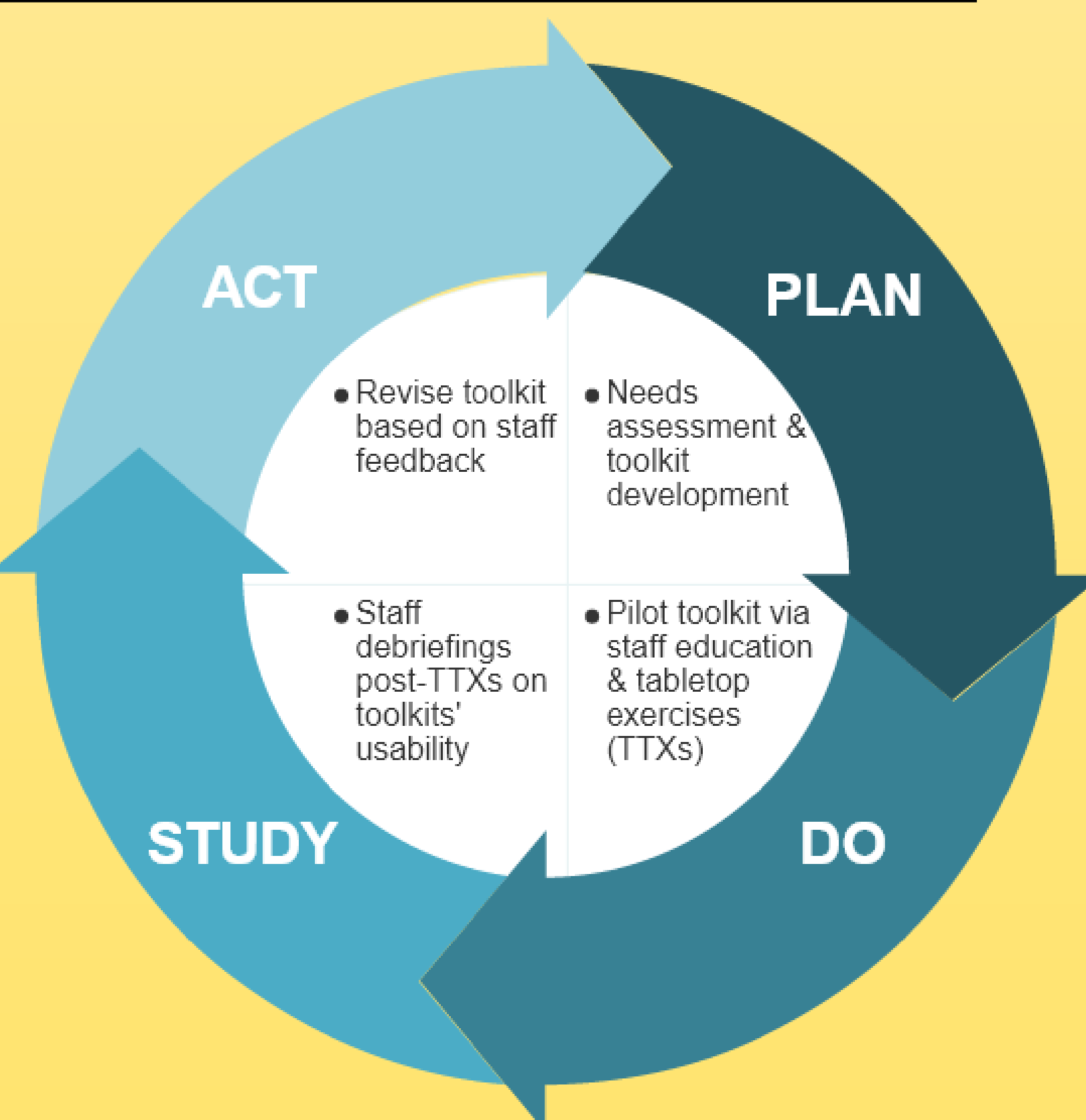
Purpose: To improve OB disaster planning at Waverly Health Center (WHC) by implementing an *OB-disaster triage toolkit*.

Objectives:

- Decrease per patient triage time by 50% by utilizing the OBTRAIN algorithm.
- Increase staff satisfaction of the OB-disaster triage process.
- Increase OB staff members' recognition of roles & responsibilities in managing a disaster event.
- Increase OB staff knowledge of the LOMC classifications for various potential transfer hospitals.

Methods

- Project deemed not human subject research & approved by WHC Ethics Committee
- Setting:** WHC L&D Unit
- Population:** OB providers, nurses, & maternal inpatients
- Measures:** recorded triage time & pre- & post-implementation surveys



Outcomes

Key Components of an OB-Specific Disaster Toolkit

OBTRAIN for L&D & Postpartum
Disaster Roles Sheet
Levels of Maternity Care & Distance List
Department Damage & Census
Grab-and-Go Bag for Remote Delivery
Maternal and Well-Baby Transfer & Order Set Forms
Medication Conversion Instructions

OBTRAIN for L&D/AP

Transport	Car (Discharge)	BLS	ALS	SPC	SHELTER IN PLACE
Labor Status	None	Early	Cervical dilation ≥4 cm	At risk for en route delivery	If delivery is imminent or patient is unsafe for transport
Mobility	Ambulatory*	Ambulatory/non-ambulatory	Non-ambulatory	Non-ambulatory	
Epidural Status	None	Placement ≥1 hr**	Placement <1 hr**	N/A	
Maternal Risk	Low	Low/Moderate	Moderate/High	High	
Fetal monitoring in transit	No	No	Yes	Yes	

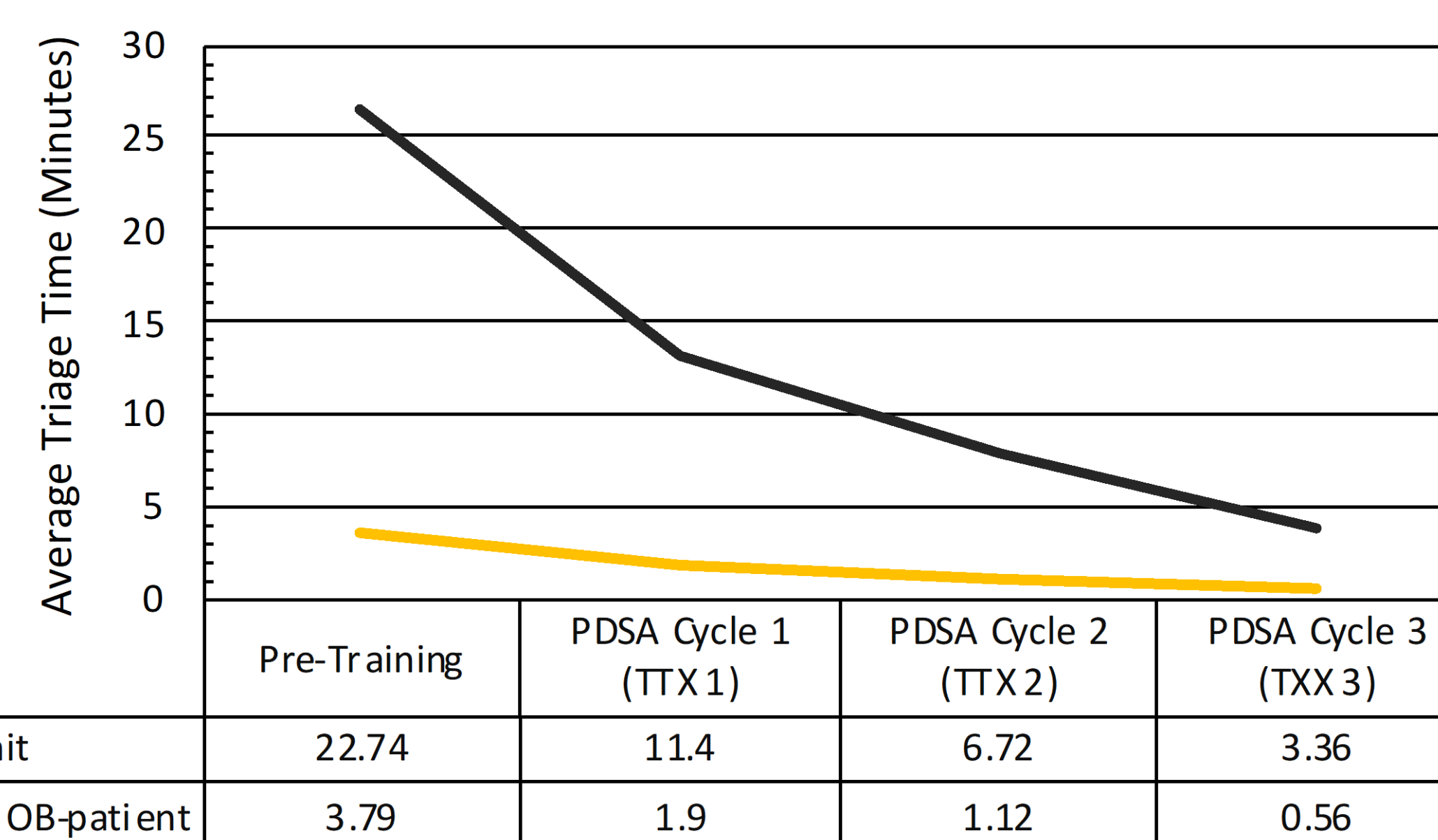
*Able to rise from a standing squat
**Epidural catheter capped off

OBTRAIN for Postpartum

Delivery	VD > 6 hrs or CD > 48 hrs	VD < 6 hrs or CD < 48 hrs	Complicated VD or CD	Medically complicated	
Mobility	Ambulatory*	Ambulatory or Non-ambulatory	Ambulatory or Non-ambulatory	Non-ambulatory	
Post Op	> 2 hrs from non-CD surgery**	> 2 hrs from CD, < 2 hrs from non-CD surgery	< 2 hrs from CD	Medically complicated	
Maternal Risk	Low	Low/Moderate	Moderate/High	High	

*Modified Bromage Score 6 = Patient is able to perform a partial knee bend from standing
**If adult supervision is available for 24 hours

OBTRAIN Maternal Triage Time



Evaluation

- Triage time per maternal patient decreased 88%.
- Staff satisfaction of the OB-triage process tripled.
- Disaster role recognition and ability to classify nearby transfer hospitals LOMC significantly increased by 76% and 64%, respectively.
- Challenges: COVID19 restrictions hindered in-person gatherings and travel to project site. Virtual education & training provided for safe, cost-effective, & a convenient alternative during a global pandemic.

Conclusions

- Obstetric patients are a uniquely vulnerable demographic that may benefit from a disaster response plan that specifically addresses their needs to provide optimal care.
- This project has the potential to safeguard the OB population, serve as a model for future quality initiatives, & advance the role of nurses as leaders in disaster response.
- Future efforts will aim to implement the toolkit across other rural maternity hospitals & assess the effectiveness of these mitigation strategies to minimize OB-patient morbidity & mortality.
- This project will be presented virtually at the Iowa Association of Nurse Anesthetists Spring 2021 Conference.

References

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