

## BACKGROUND

- In-hospital cardiac arrest (IHCA) affects approximately 292,000 adult and 15,000 pediatric patients yearly.<sup>1</sup>
- ~22% of patients survive IHCA<sup>1</sup>
- Studies have shown mock code training as a core quality in top performing hospitals with higher IHCA outcomes<sup>3</sup>, however, performance evaluations of team dynamics is currently lacking.
- The Resuscitation Education Initiative (REdI) is an ACLS/BLS training program for the Veteran Affairs Healthcare System.

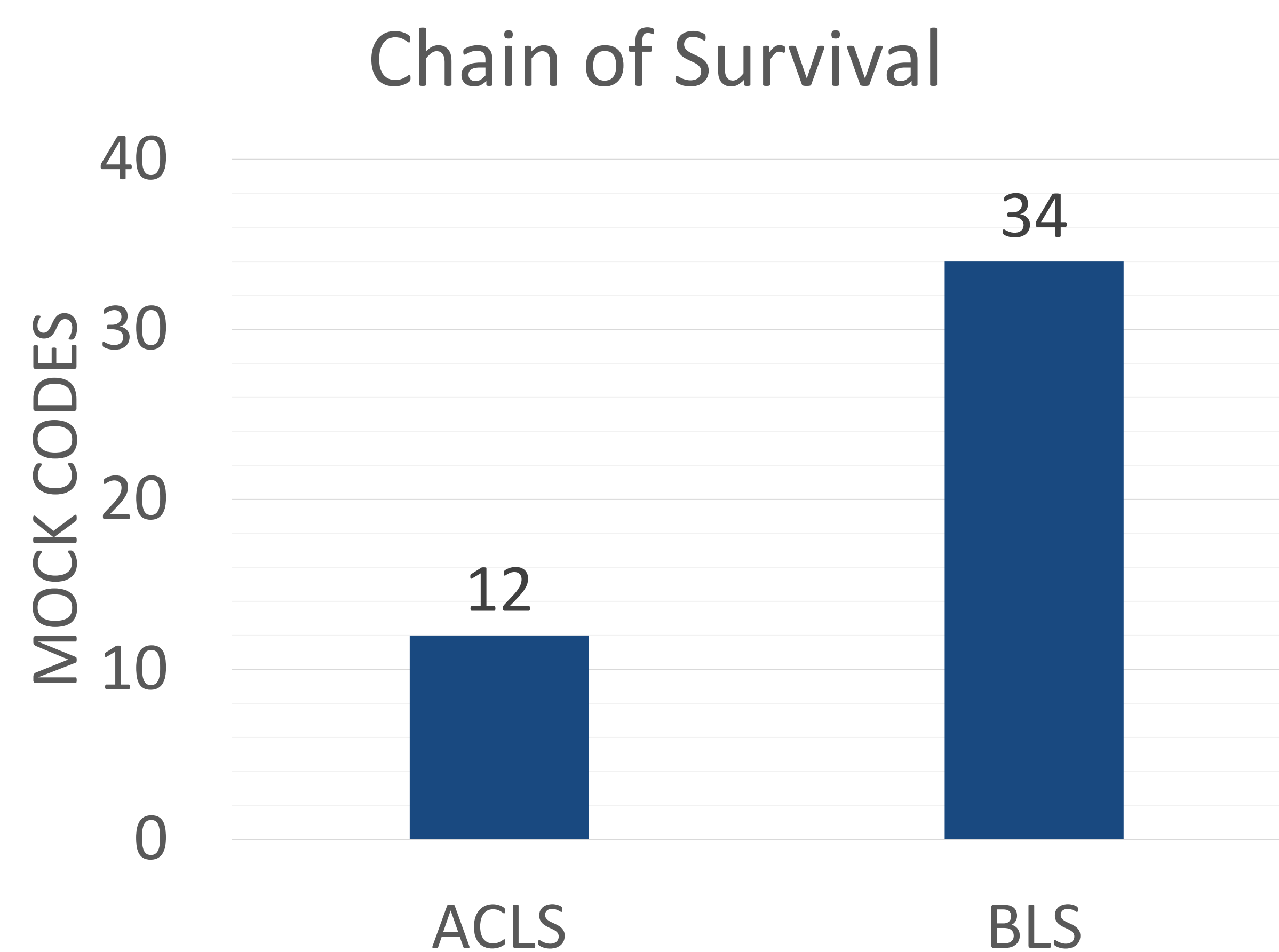
## HYPOTHESIS

We hypothesized that team dynamics and communication skills are an area of poor performance for participants in mock codes.

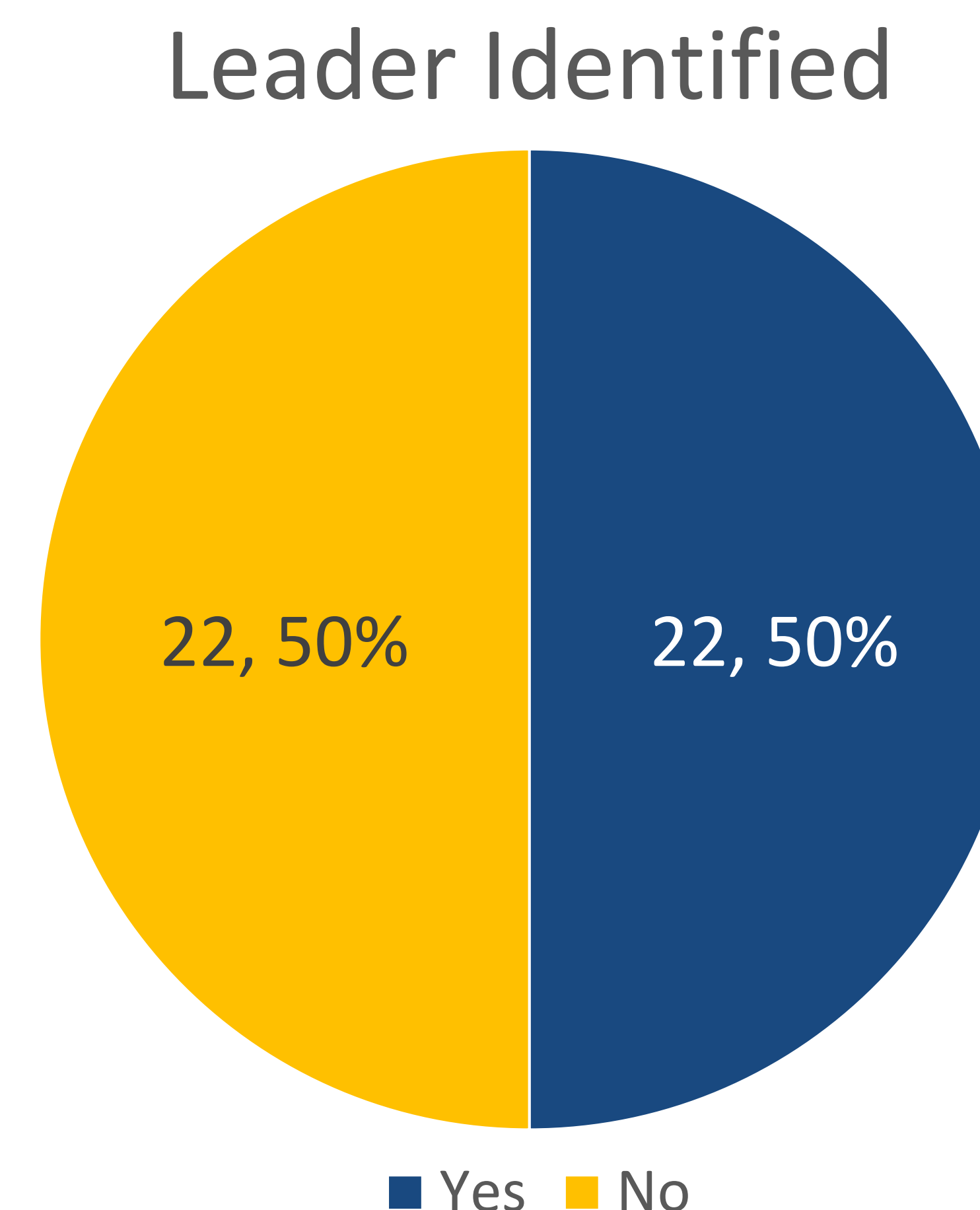
## METHODS

- The REdI Mock Code Program was implemented across the nation at 8 Veterans Affairs Medical Centers in 2019.
- Sites utilized a templated survey which was modifiable to meet the needs of each mock code session (i.e., using a BLS score system rather than ACLS for a BLS code).
- Facilitators scored participants utilizing a checklist with a binary system of inclusion, reflecting the successful or unsuccessful completion of a task.
- If no response was recorded, this was considered "omitted" rather than an unsuccessful completion of a task.
- Quantitative analysis performed for sites with blinded survey review

## RESULTS



**Figure 1.** Category of mock code simulation per session. Number of surveys used in analysis was 44, however, two sessions included both ACLS and BLS components for grading.



**Figure 2.** Percentage of correctly identified leaders during mock code session, n=44.

Category	Met Standards	Not Met	Omitted
Closed Loop Communication	22 (50%)	22 (50%)	--
Designating Roles	22 (50%)	22 (50%)	--
Summarization	25 (57%)	16 (36%)	3 (7%)
Clear Messaging	26 (59%)	15 (34%)	3 (7%)
Knowledge Sharing	28 (64%)	13 (29%)	3 (7%)
Constructive Intervention	28 (64%)	12 (27%)	4 (9%)
Knowing One's Limitations	28 (64%)	11 (25%)	5 (11%)
Mutual Respect	38 (86%)	6 (14%)	--

- 47 surveys in total, 3 excluded due to profound variation across centers attributed to the customization of the surveys.
- Remaining 44 were included in the final data analysis.
- 86% performed during day shift hours

- 13 surveys included code status as a component of grading
- Only 3 correctly identified code status and pursued appropriate steps based on code status.
- The remaining surveys omitted DNR/DNI as part of the checklist for code evaluation

## DISCUSSION

- Data for IHCA has shown significant variability in survival, even when adjusting for patient case-mix.<sup>4</sup>
- Designated resuscitation teams and high quality training have been associated with improved IHCA outcomes.
- Our data assessed team dynamics for mock codes in the VA REdI program, and with the exception of mutual respect, participants did not meet standards by 25% or greater
- Limitations include: number of surveys available given recent program implementation and post-training comparison available

## CONCLUSIONS

Mock codes are often used for teaching basic skills involved in cardiac resuscitation. Participants did not perform well in areas involving team dynamics and this could be an area for future attention when designing effective mock codes.

## REFERENCES

1. Holmberg MJ, Ross CE, Fitzmaurice GM, Chan PS, Duval-Arnould J, Grossestreuer AV, Yankama T, Donnino MW, Andersen LW; American Heart Association's Get With The Guidelines-Resuscitation Investigators. Annual Incidence of Adult and Pediatric In-Hospital Cardiac Arrest in the United States. *Circ Cardiovasc Qual Outcomes.* 2019 Jul 9;12(7):e005580. PMID: 31545574; PMCID: PMC6758564.
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