Serious Illness Care Research: Exploring Current Knowledge,
Emerging Evidence and Future Directions | Implementation Science

Implementation research in acute care settings

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I have no financial conflicts of interest to disclose

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- Agency for Healthcare Research and Quality
- American Heart Association
- Patient Centered Outcomes Research Institute

Relationships:

- Vice President, Anesthesia Patient Safety Foundation
- Board of Directors, Foundation for Anesthesia Education and Research
- Editorial boards, *Global Implementation Research and Applications* and *Anesthesiology*

Objectives

- Describe inpatient serious illness research challenges and opportunities
- Explain the utility of applying human factors and systems engineering to inpatient implementation research
- Explain ethical considerations unique to inpatient-based implementation research

My lab uses implementation science to improve patient care

LANE-FALL LAB

ADVANCING PATIENT-CENTERED QUALITY CARE

"Implementation science is the study of human behavior change under organizational constraints"

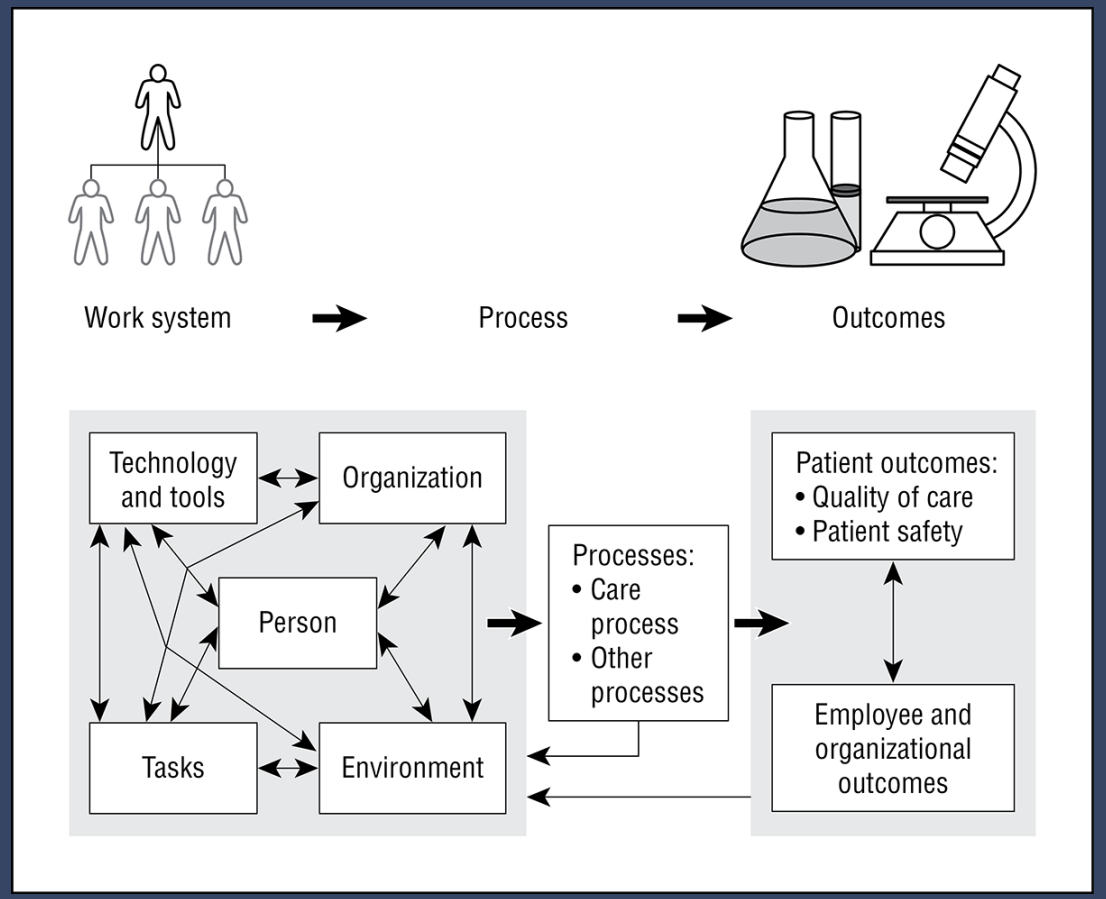
Anne Sales, PhD
University of Missouri

What is human factors engineering?

"Ergonomics (or human factors) is the scientific discipline concerned with the **understanding of interactions among humans and other elements of a system**, and the profession that applies theory, principles, data and methods to design in order to **optimize human well-being** and overall system performance."

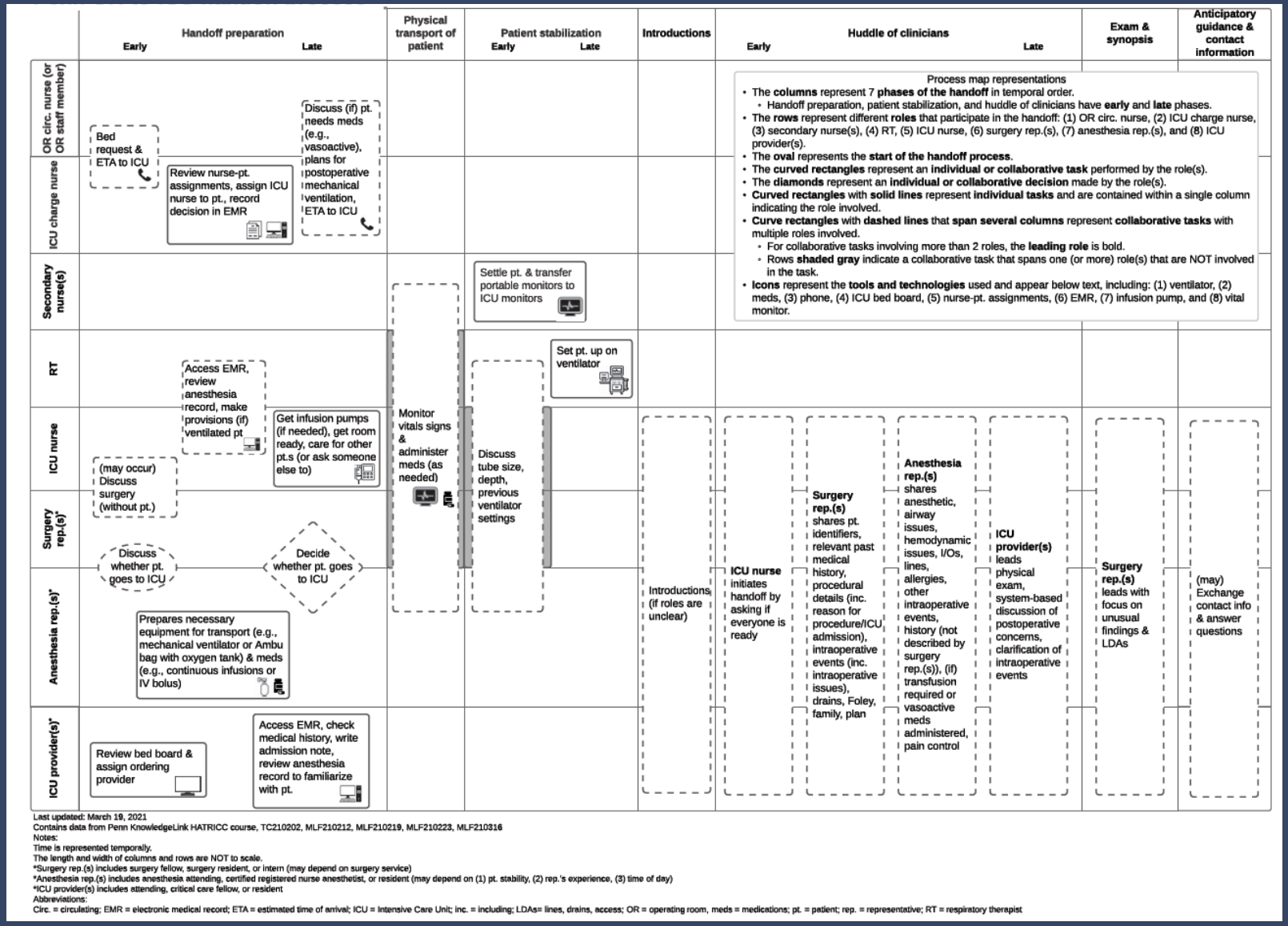
-International Ergonomics Association

Systems Engineering Initiative for Patient Safety

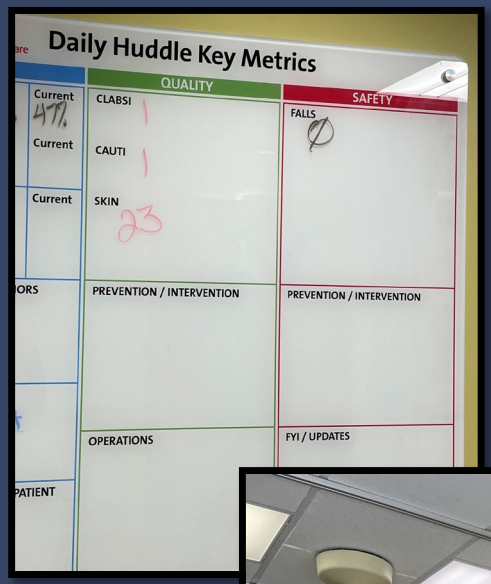


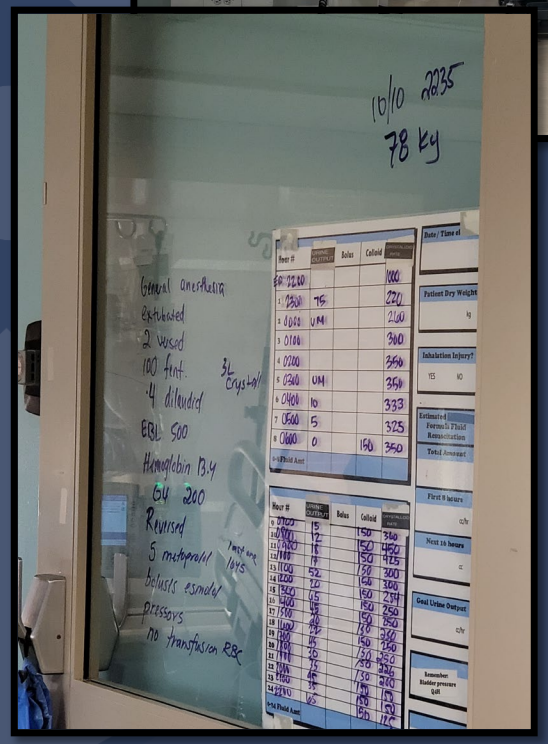
Carayon P *et al.* Work system design for patient safety: the SEIPS model. *Qual Saf Health Care* 2006;15(Suppl 1):i50-i58.

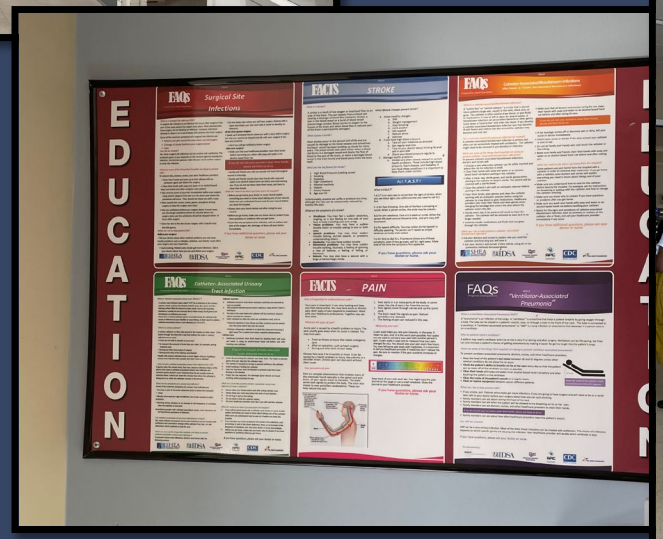
We need to understand workflow to change behavior



Bat-Zion Hose, PhD, for the Lane-Fall lab (unpublished data)



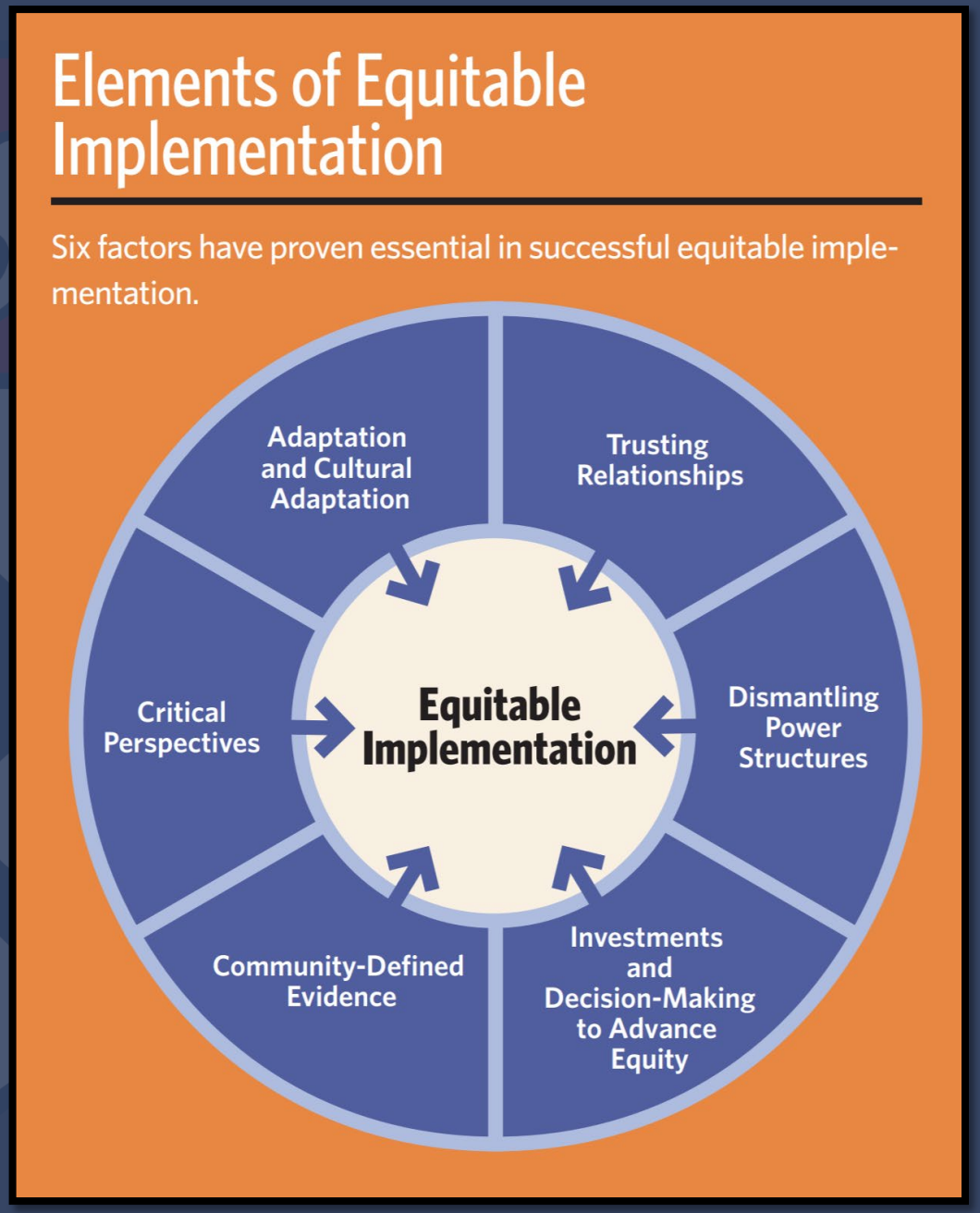




Learning from seeing

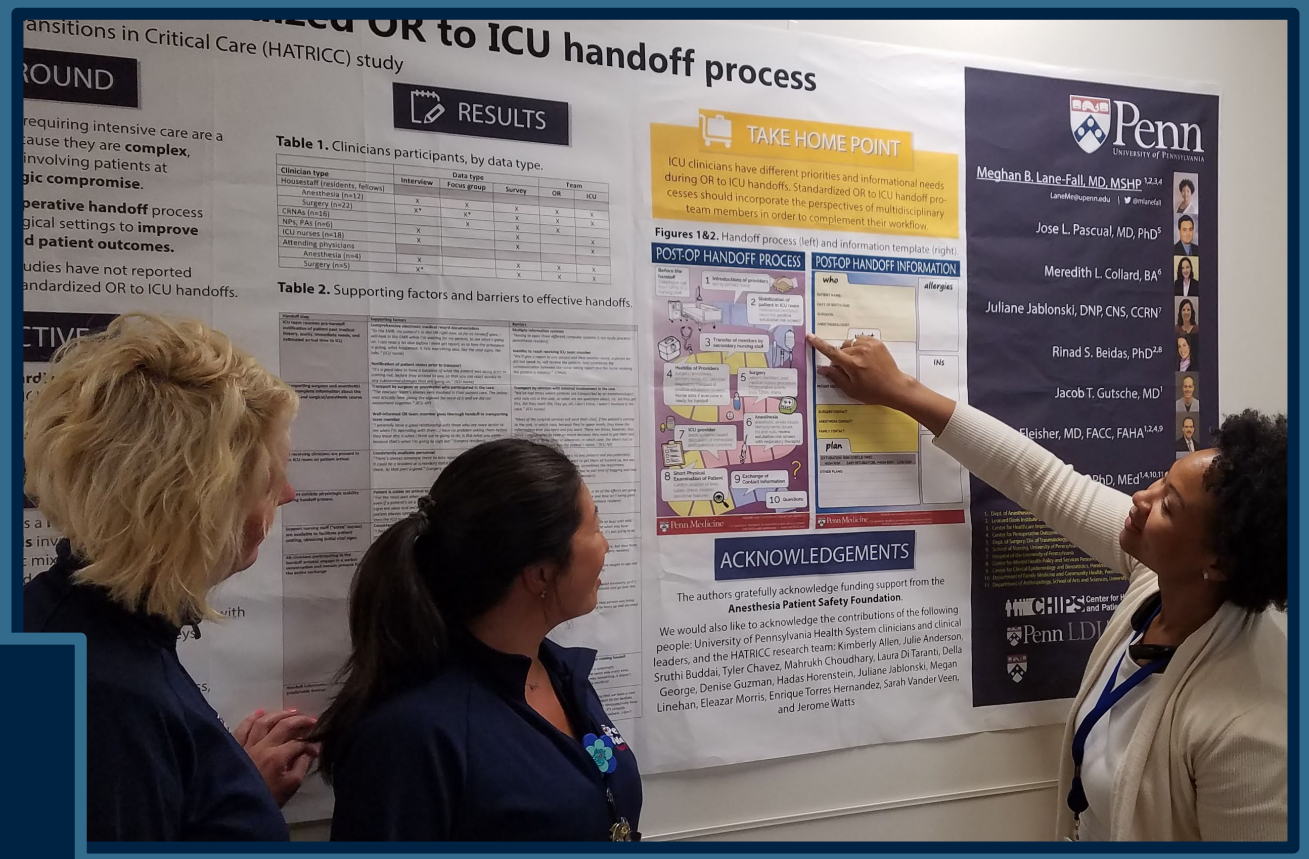
Ethics of implementation in acute care

- Who serves as a gatekeeper to the setting?
- Who provides consent?
- How do participants opt out of research?
- How is retaliation prevented?



Loper A, Woo B, Metz A. Equity is Fundamental to Implementation Science. Bringing Equity to Implementation. Stanford Social Innovation Review, Summer 2021.

Engaging stakeholders in research



Conclusions & limitations

- Inpatient settings are characterized by a fast pace and competing priorities
- Human factors engineering holds promise to characterize workflow & complement implementation
- There are unique ethical considerations to doing implementation research in acute care

Thank you!

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