



Showcase for Hopkins Inquiry and Nursing Excellence

SHINE

Conference

Listen to the Data: What to do with unexpected results

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This educational activity has not received any form of commercial support.

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This presentation will not discuss the off-label or investigational use of a drug, biological product, or medical device name.

Objectives

Listen to the Data: What to do with unexpected results

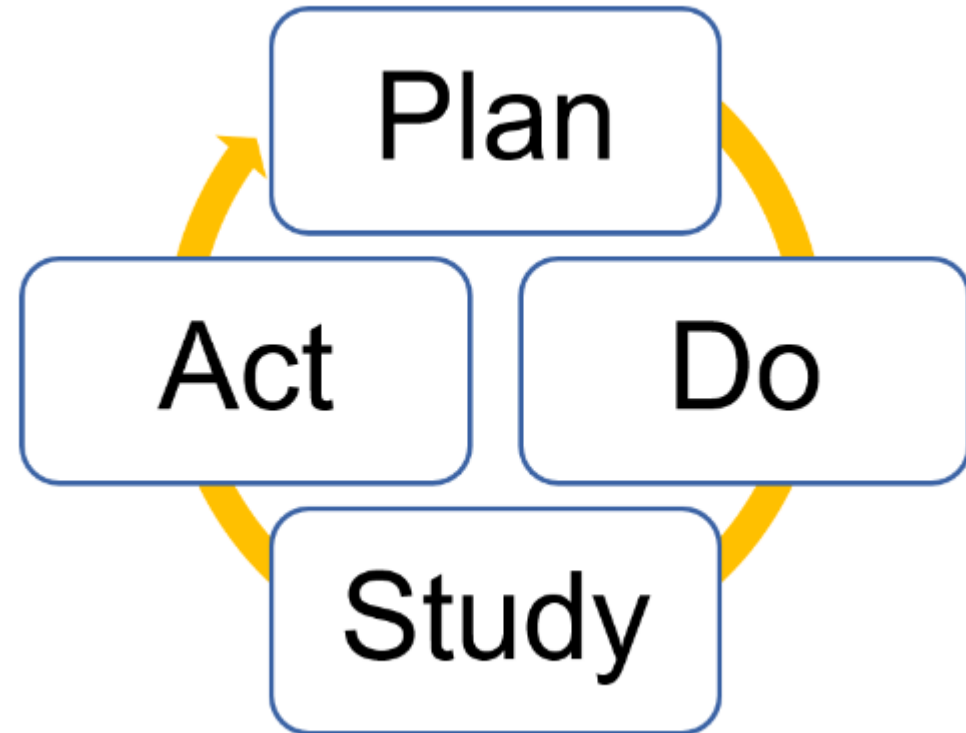
1. Discuss the importance of curiosity and openness when conducting scientific inquiry
2. Identify one example of scientific results not meeting a team's expectations
3. Identify 2 risks of biased data interpretation

Quality Improvement Framework: PDSA

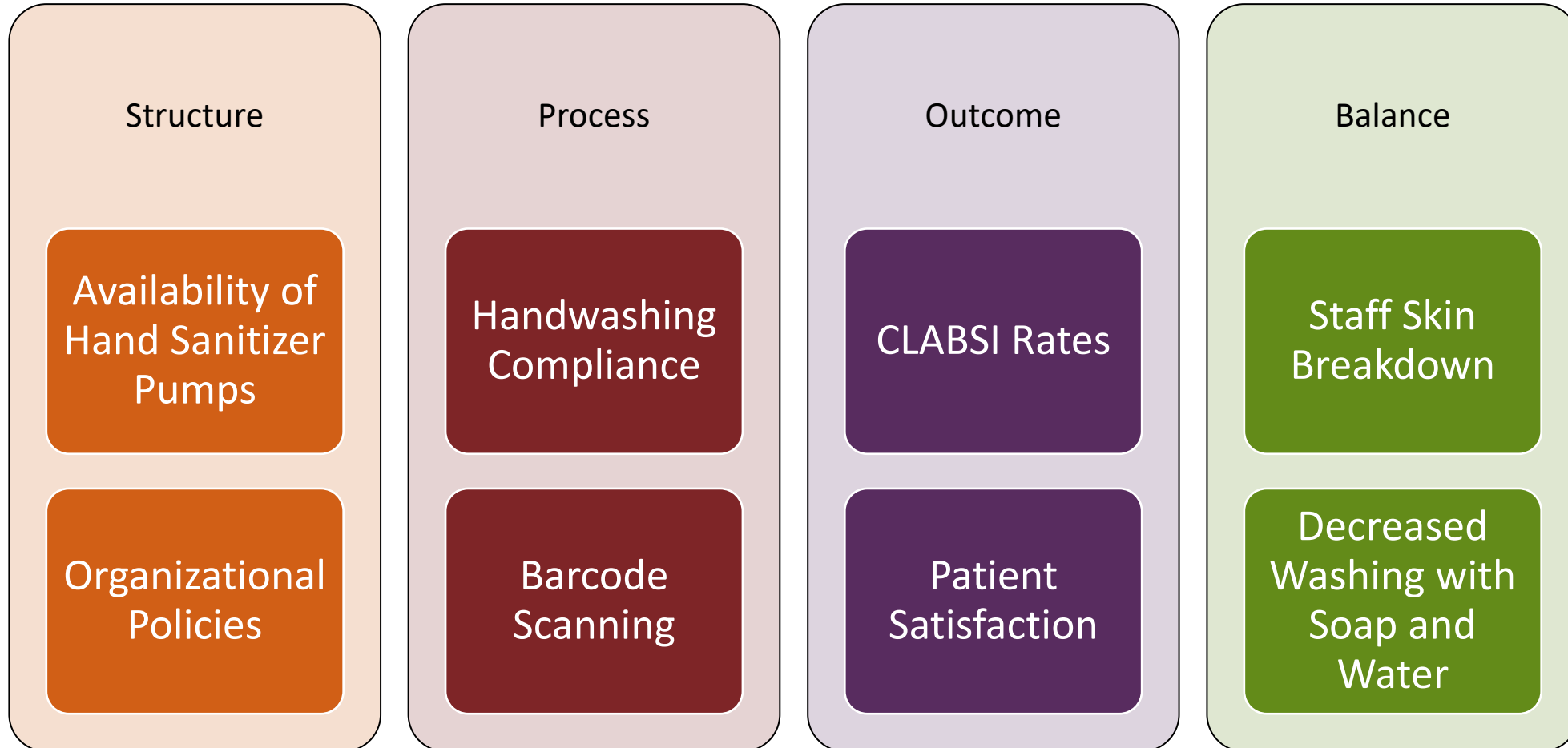
The Model for Improvement

Two phases:

1. Set aims, establish measures and select an intervention
2. Test the intervention in real world settings using the PDSA cycle



Review of Measures



Unexpected Results

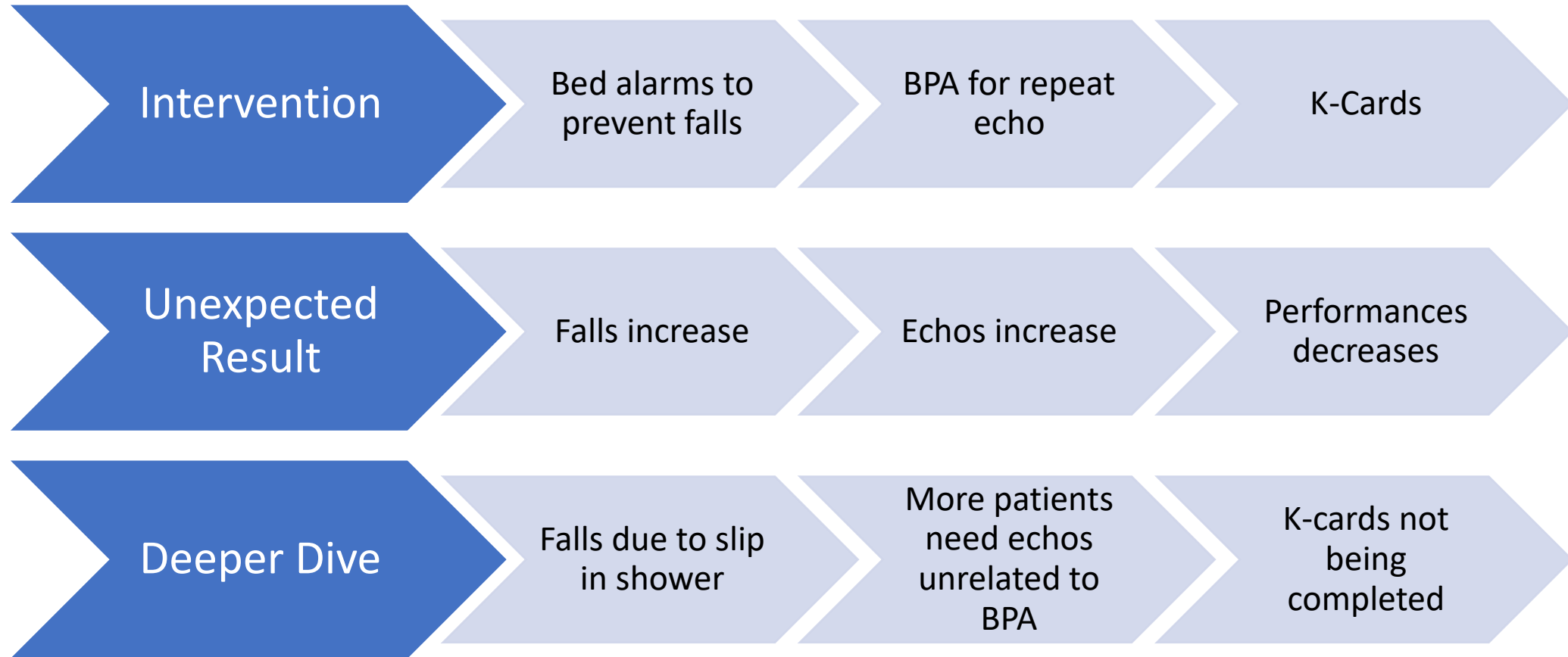
What are they?

- An unexpected result is one that runs counter to what prior evidence or informed hypothesis would suggest
- Evaluation shows no evidence of impact



Unexpected Results

Examples



Unexpected Results

Why do they happen?

Implementation
barriers

Confounding
factors

Risks to project
not identified

Validity of survey





Multi-factorial
nature of patient
outcomes

Intervention not
grounded in true
evidence-based
practice

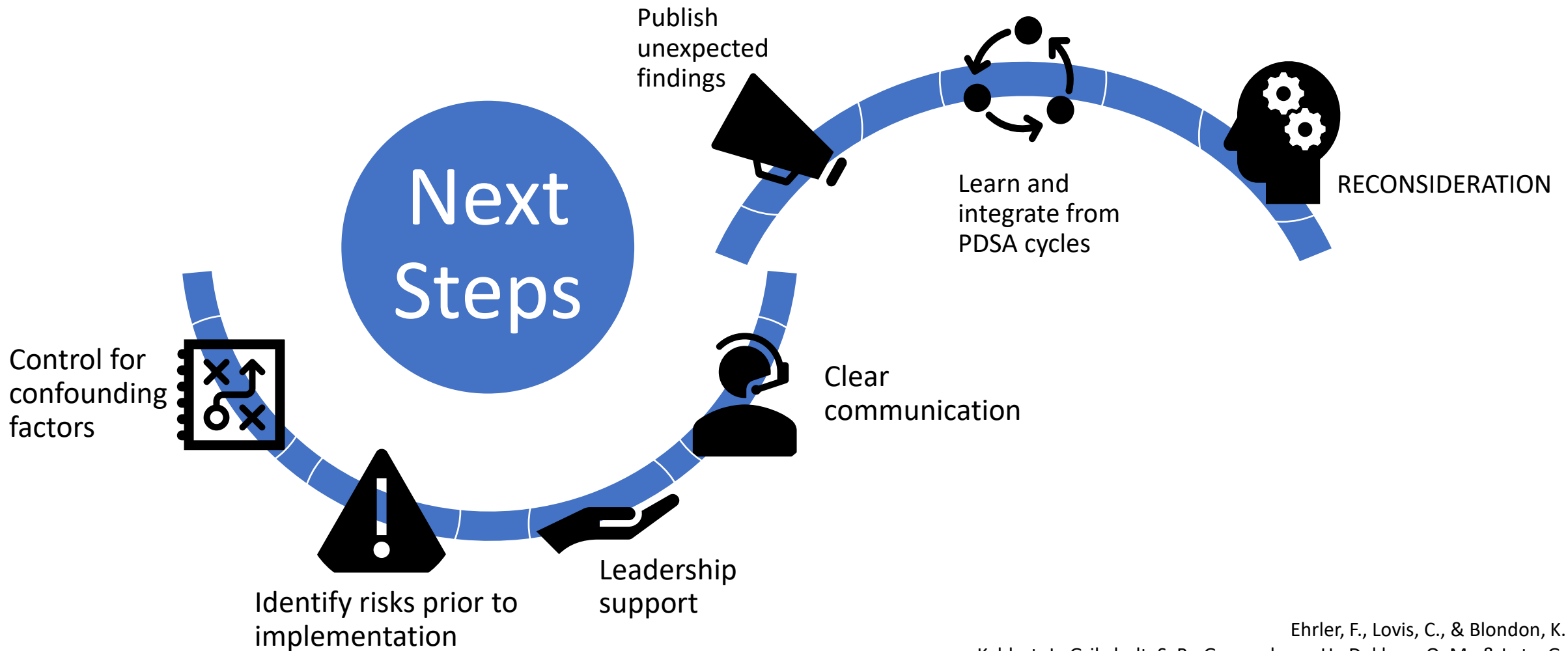
Dynamic nature of
healthcare

Unexpected Results

How do we interpret them?

-  Unexpected results do NOT mean intervention has no effect
-  Have curiosity and openness
-  Caution: biased data interpretation
-  Statistical vs Clinical Significance

Unexpected Results



- ✓ Unexpected results happen
- ✓ Unexpected results do NOT mean the intervention has no effect
- ✓ Plan for unexpected results
- ✓ Remain open and curious to eliminate biased interpretation



Questions?

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