



# Balancing measures or a 'balanced accounting' of both intended and unintended consequences of improvement interventions?

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## *What is the purpose, design and use of balancing measures in quality and safety improvement?*

“Use a balanced set of measures for all improvement efforts: outcomes measures, process measures, and balancing measures.

1. **Outcome Measures:** How does the system impact the values of patients, their health and wellbeing? What are impacts on other stakeholders such as payers, employees, or the community?
2. **Process Measures:** Are the parts/steps in the system performing as planned? Are we on track in our efforts to improve the system?
3. **Balancing Measures** (looking at a system from different directions/dimensions): Are changes designed to improve one part of the system causing new problems in other parts of the system?”

\* Adapted from IHI (text is verbatim quote but examples are omitted and text is renumbered)

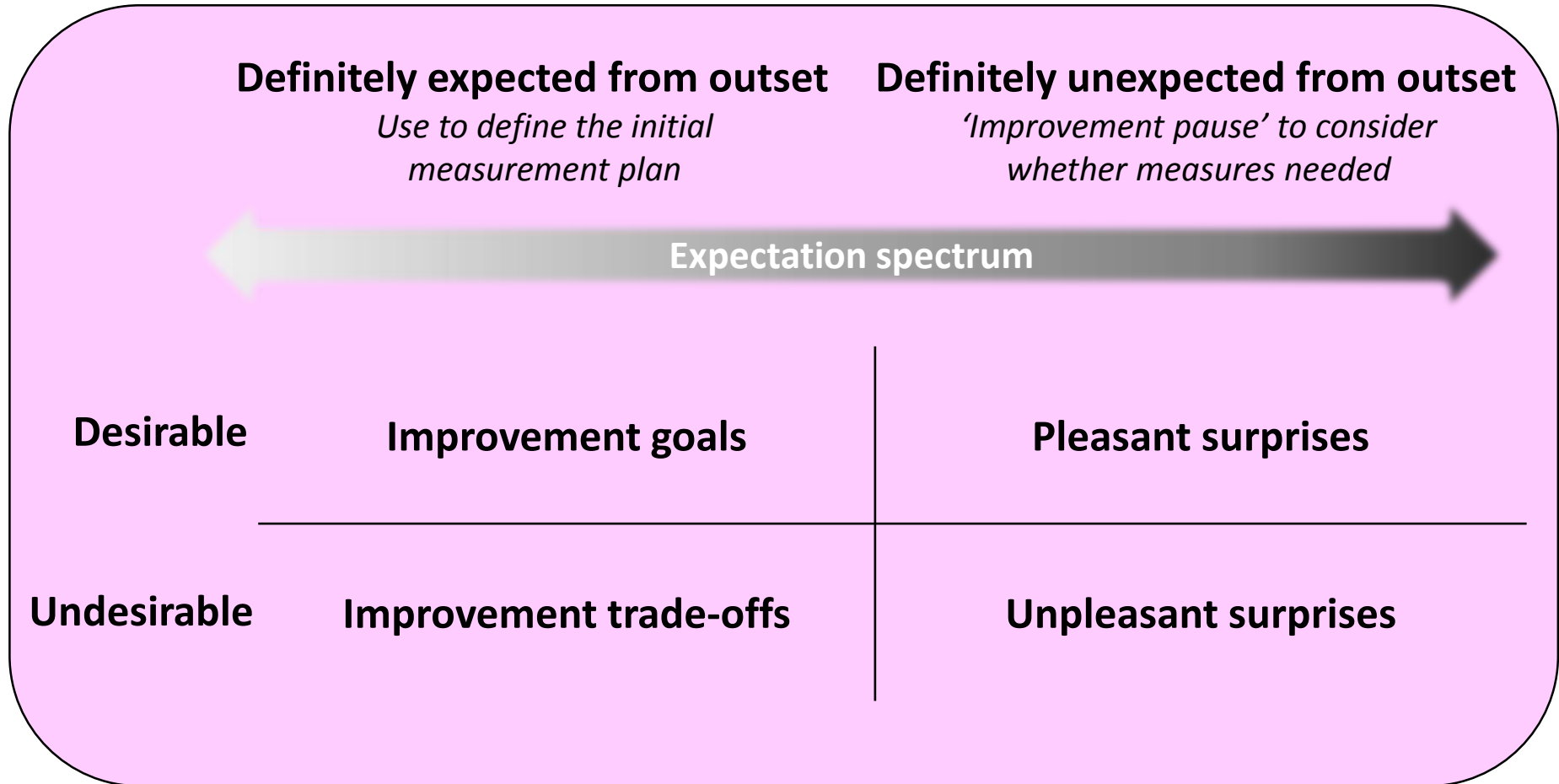
***HOWEVER, little information is available on how such measures should be defined and implemented.***



*Balancing measures or a balanced accounting of  
intended and unintended consequences of improvement interventions?  
Qualitative analysis of individual and focus group interviews with  
improvement experts*



## Refined framework of types of consequences of quality improvement projects



- All four consequences can be measured using either process or outcome measures
- All four consequences can arise in the same area of care targeted by improvement, or elsewhere in the health and social care system

# Definitely expected from outset

*Use to define the initial measurement plan*

Expectation spectrum

**Desirable**

## **Improvement goals**

*Typically, measured from the beginning as part of improvement projects and defined by the initial measurement plan*

Reducing the time patients spend on a ventilator after surgery



**Undesirable**

## **Improvement Trade-offs**

*Implicitly believed to be smaller in magnitude than the goals and so an acceptable compromise*

**An increased frequency of unplanned reintubations was expected and confirmed**

# Definitely unexpected from outset

## *'Improvement pause' to consider whether measures needed*

Expectation spectrum

**Desirable**

**Pleasant surprises**

*Unsure if these could be counted with a balancing measure since they were on the same side of the benefit-harm balance as goals*

**Undesirable**

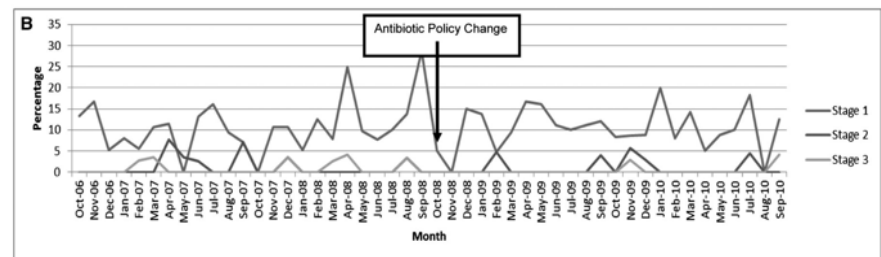
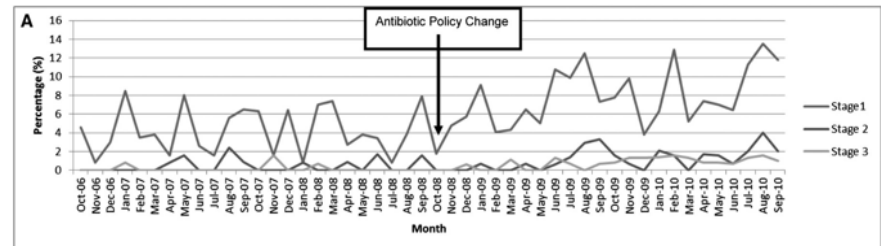
**Unpleasant surprises**

*Uncertain of the benefits of goals will be larger so active reflection on potential hazards during or after implementation is needed*



### Risk of AKI with Gentamicin as Surgical Prophylaxis

(A) Increase in percentage of AKI (adjusted) stages 1, 2, and 3 for each month (excluding NOF) following policy change.



# Interventions to improve antibiotic prescribing practices for hospital inpatients

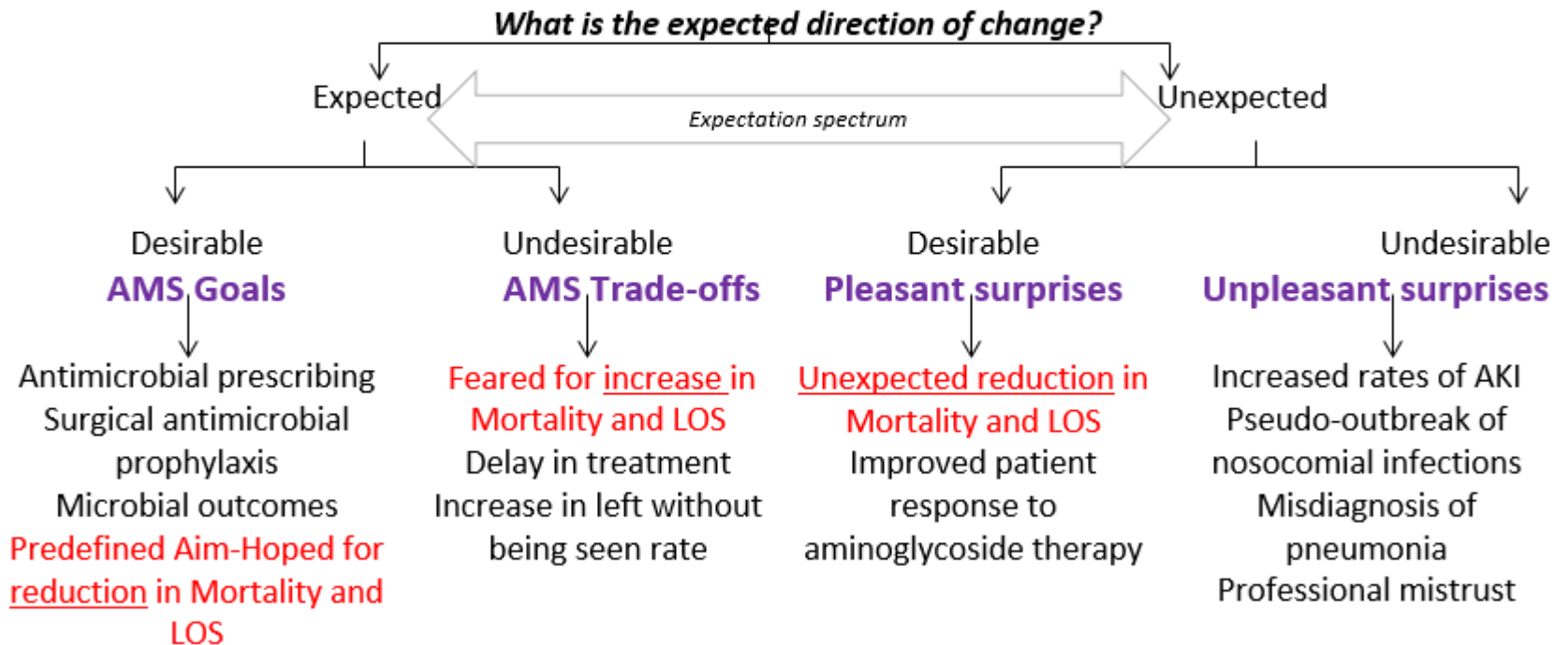
Review Intervention

Peter Davey ✉, Charis A Marwick, Claire L Scott, Esmita Charani, Kirsty McNeil, Erwin Brown, Ian M Gould, Craig R Ramsay, Susan Michie

First published: 9 February 2017

## A balanced accounting of impact in AMS interventions

Paper commissioned by The Journal of Antimicrobial Chemotherapy

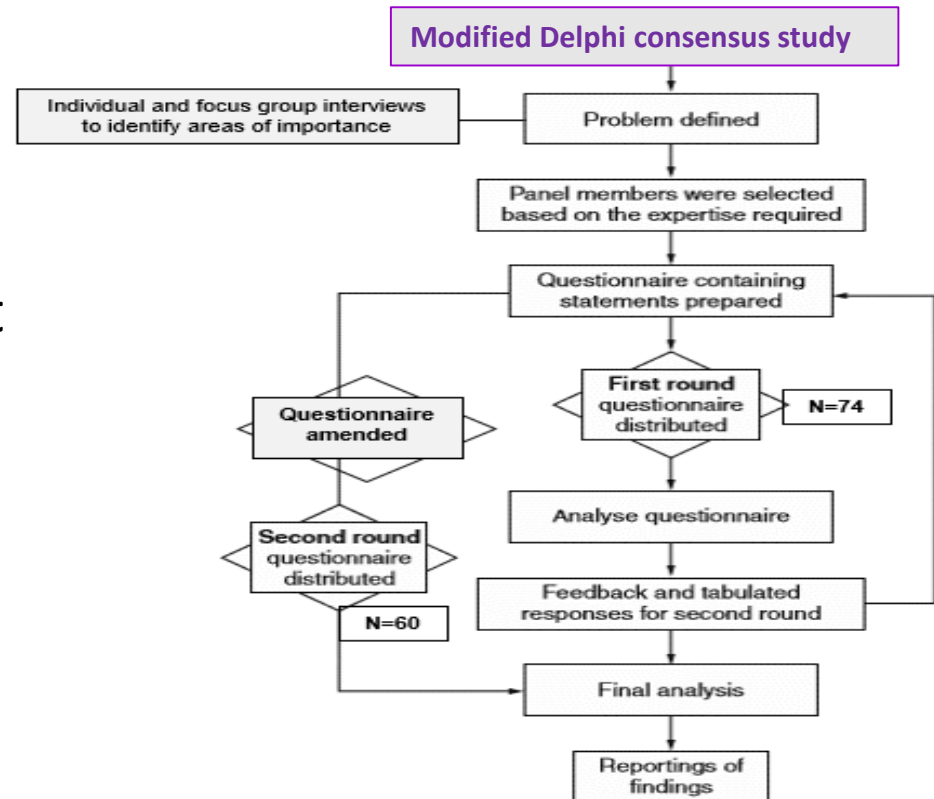




# Conclusion and next steps

Balancing measures or a **“Balanced accounting”** of all consequences of improvement beyond trade-offs

Considering measures can **increase engagement and minimise risks** but any benefits have to be set against the **cost of data collection** implying a need to **PRIORITISE** *what, how, who and when to measure...*





# Any questions?



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Thank you