

April 25, 2024

Sustainability

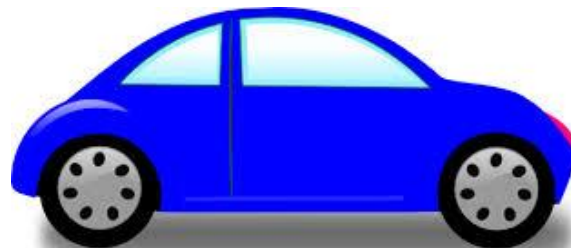
Zahra Kassamali Escobar, PharmD

sus·tain·a·ble

/sə'stānəb(ə)l/

adjective

1. able to be maintained at a certain rate or level.



Case in point:

IQIC 101 Smart Goal:

We will improve our appropriate treatment of UTI by 10% (baseline = 68%)

Intervention: Education!

Results after IQIC 101 & 201

- From June 2020 - January 2023
appropriate treatment rate = 65%; consistent
despite provider specific education
- If 3 highest prescribing providers removed
from data set, appropriate treatment rate = 78%

5/25: PDSA Cycle



Progress on PDSA Cycle 1

Plan	Do	Study	Act
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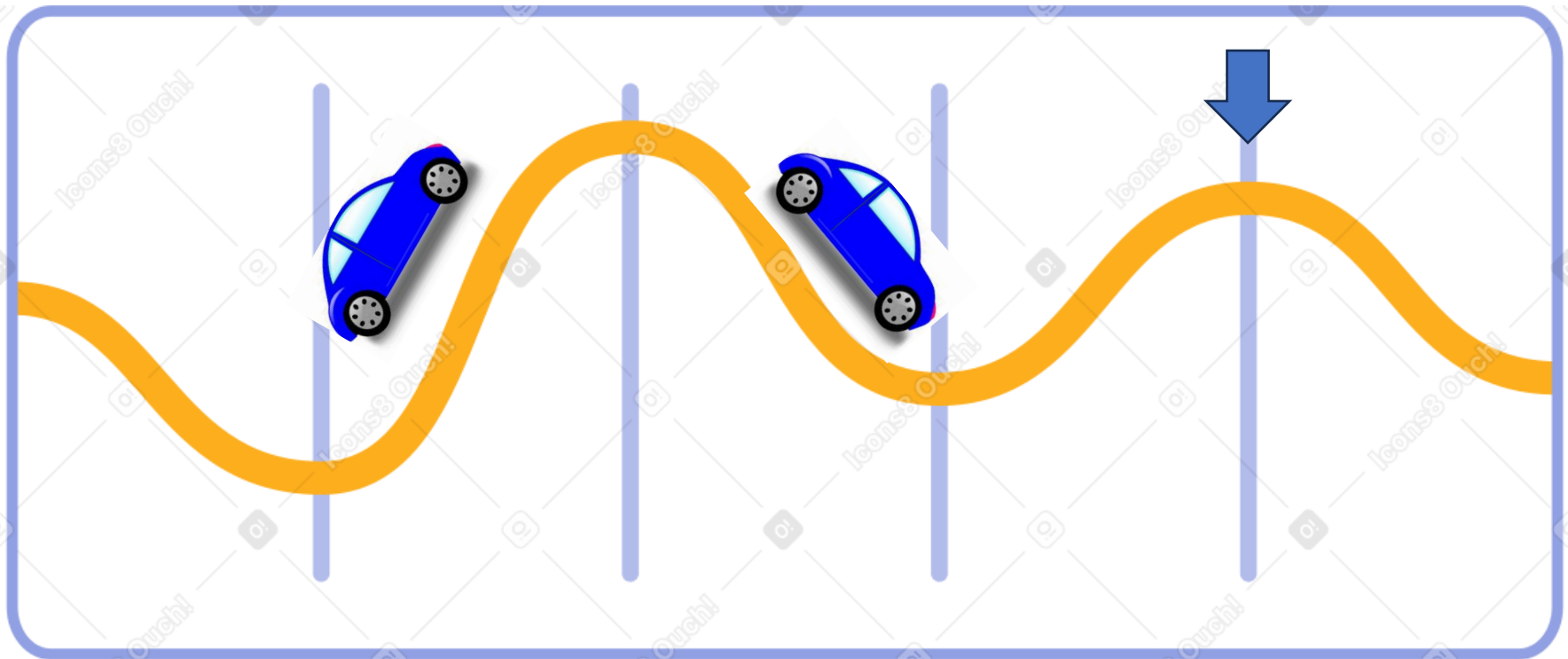
- Will send out Dear Doctor letter - ED director will hand out and have discussion
 - Look at changes over time
 - Providers with high volumes of cases show more reliable trends
 - Send letters for providers that improved

The Road to Change

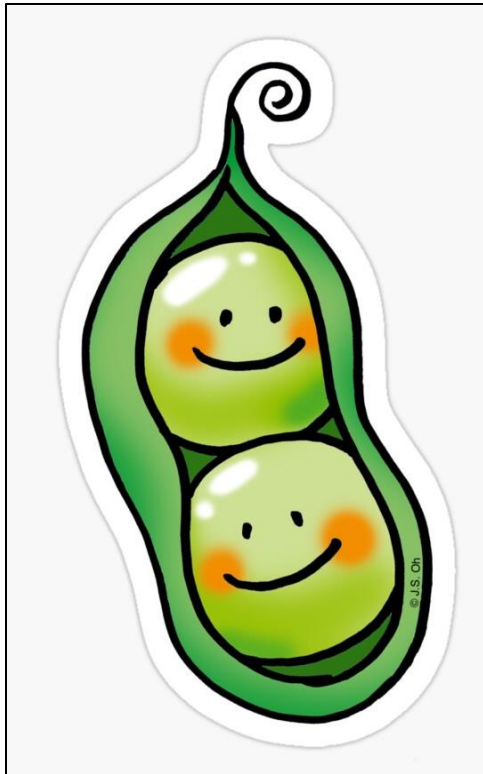
Hit the Gas Phase

Take your foot off the
pedal and coast phase

Bumps in the road/
Slide back phase



Improving antimicrobial use includes both antimicrobial and diagnostic stewardship



Antimicrobial stewardship
interventions



Diagnostic stewardship
interventions



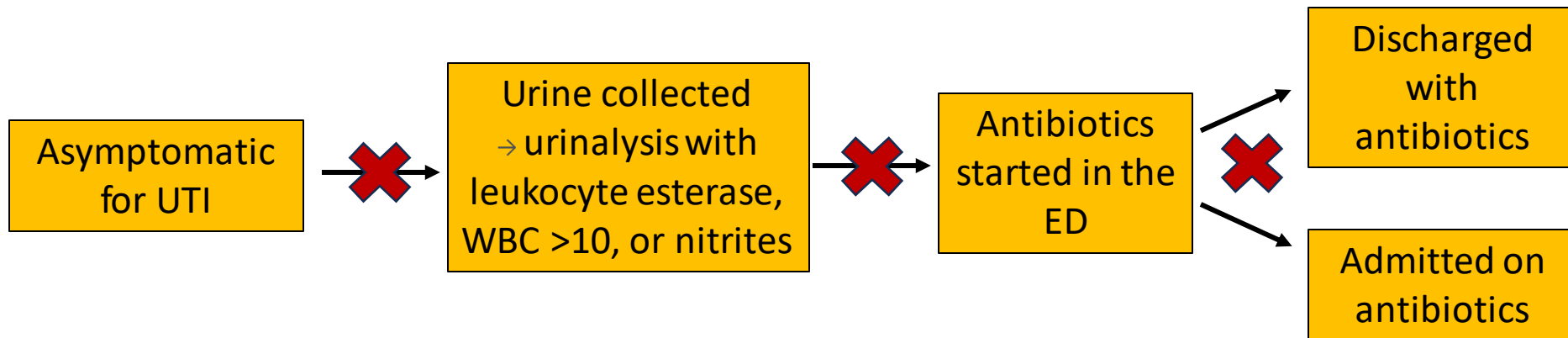
Valerie Vaughn, MD
Nov 30



Where are stewardship opportunities for UTI?

Diagnostic stewardship

Antimicrobial stewardship



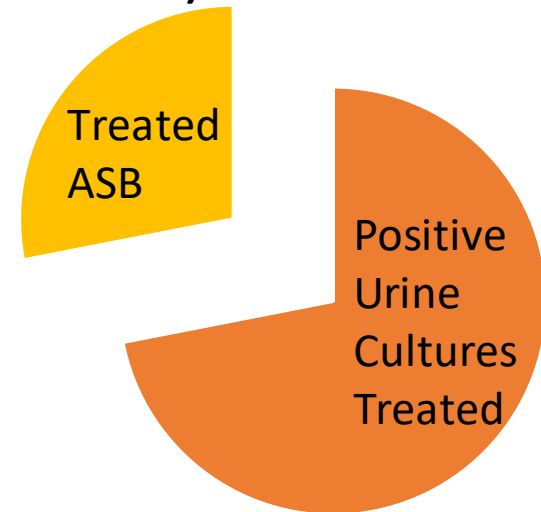
Measuring UTI stewardship



$$\text{Rate of inappropriate diagnosis of UTI} = \frac{\text{\# patients treated with abx for ASB}}{\text{\# of patients treated with positive urine culture (ASB + UTI)}}$$

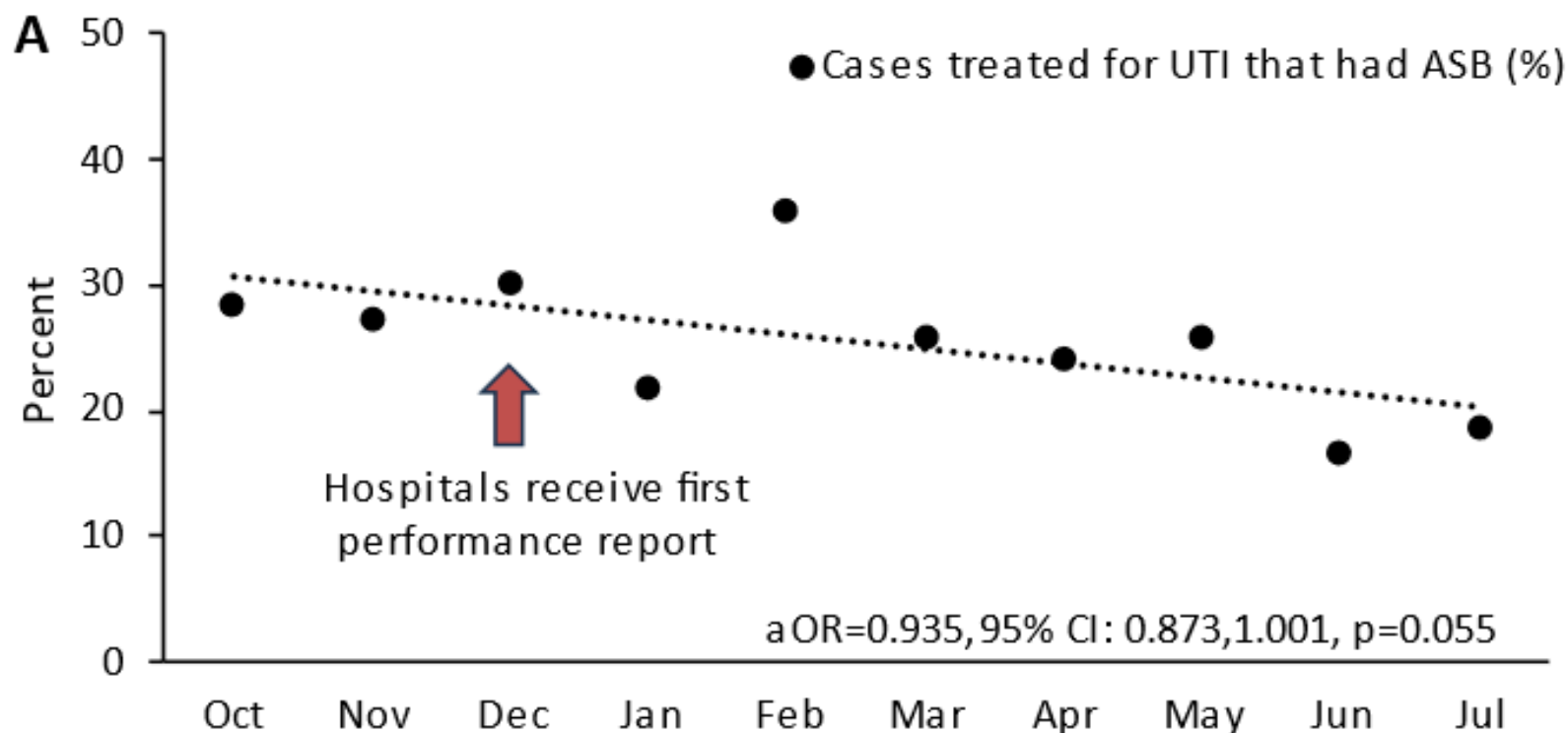
- Rate can be lowered by:

- reducing unnecessary urine cultures (diagnostic stewardship) or
- reducing antibiotic treatment when unnecessary cultures are obtained (antibiotic stewardship).



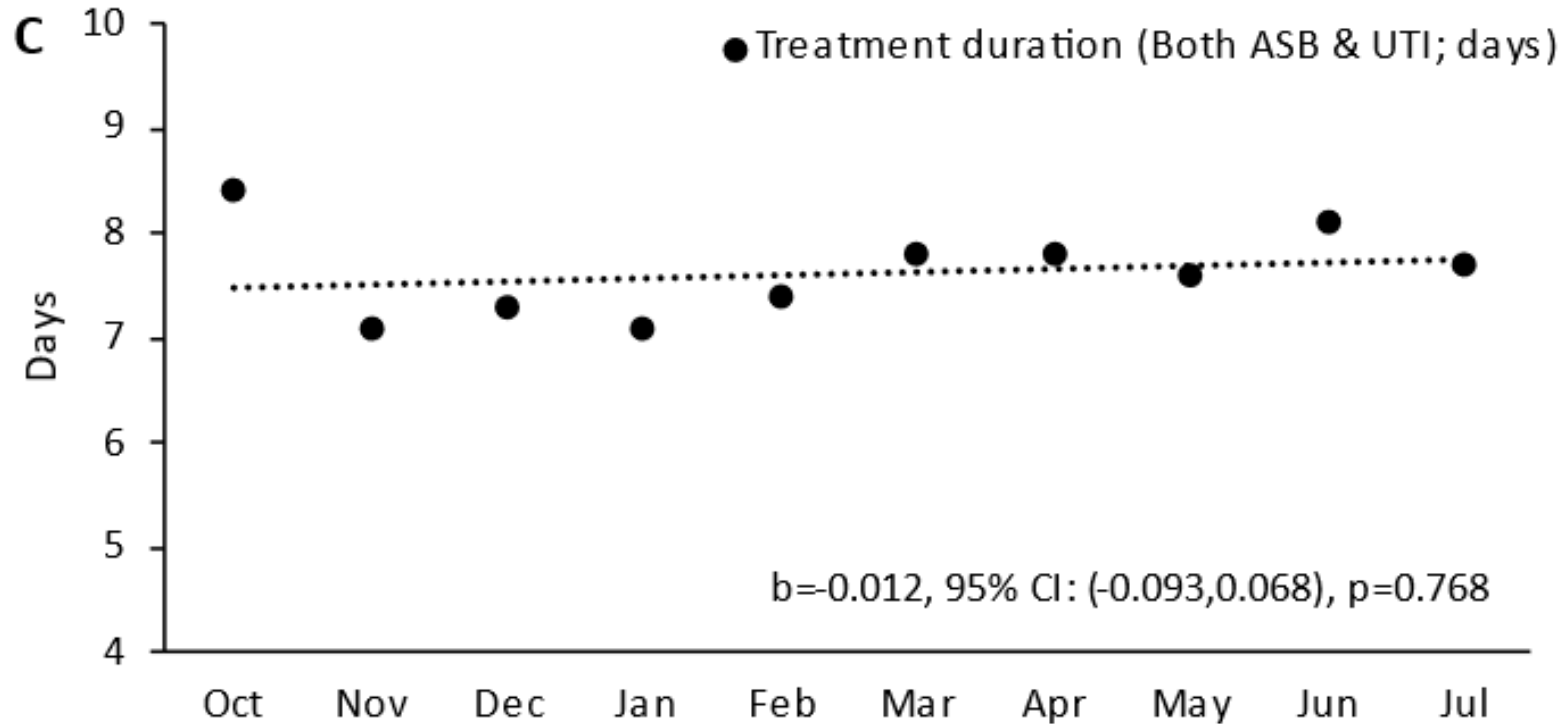
2nd year of IQIC Project (2022-2023)

Rate of inappropriate diagnosis of UTI



Change is hard to do

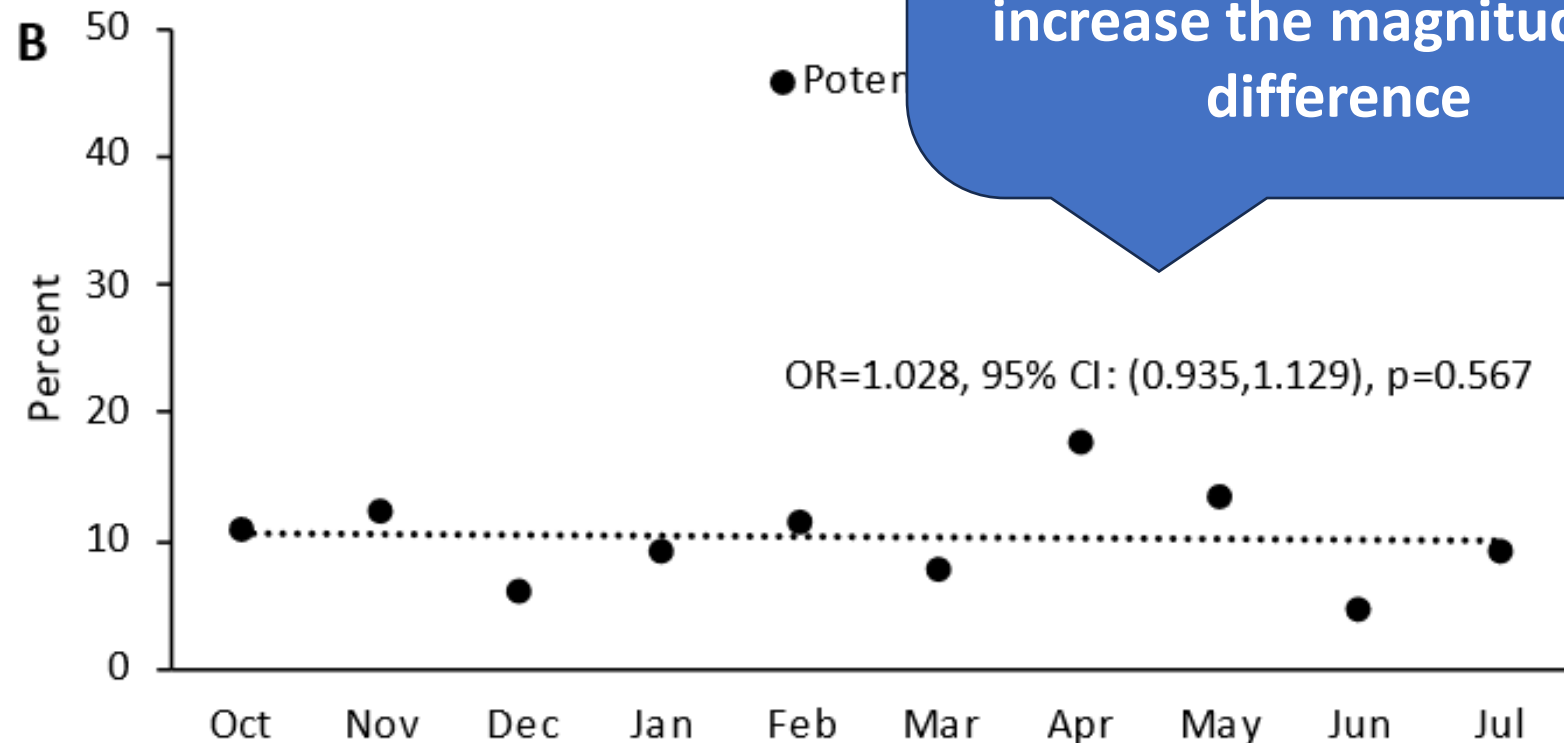
Duration of Treatment, days (ASB & UTI)



Change is hard to de

In order to demonstrate statistically significant change, increase your sample size AND/OR increase the magnitude of difference

Rate of unnecessary fluoroquinolone



The Specifics: Sustain your Gain



How can we steward admitted patients with ASB on antibiotics?

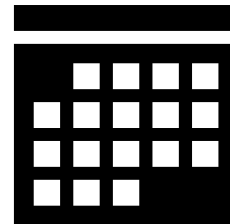
- Prospective audit and feedback*
- Shortening duration of therapy
 - Stop following dose(s)
 - If clinician prefers to continue, decrease to 3 days¹
- Antibiotic selection
 - Non-FQ agent
 - Transition from IV to PO



How can we **sustain** stewardship of admitted patients with ASB on antibiotics?



Keep calling



Keep suggesting
shorter durations



Keep switching IV to PO

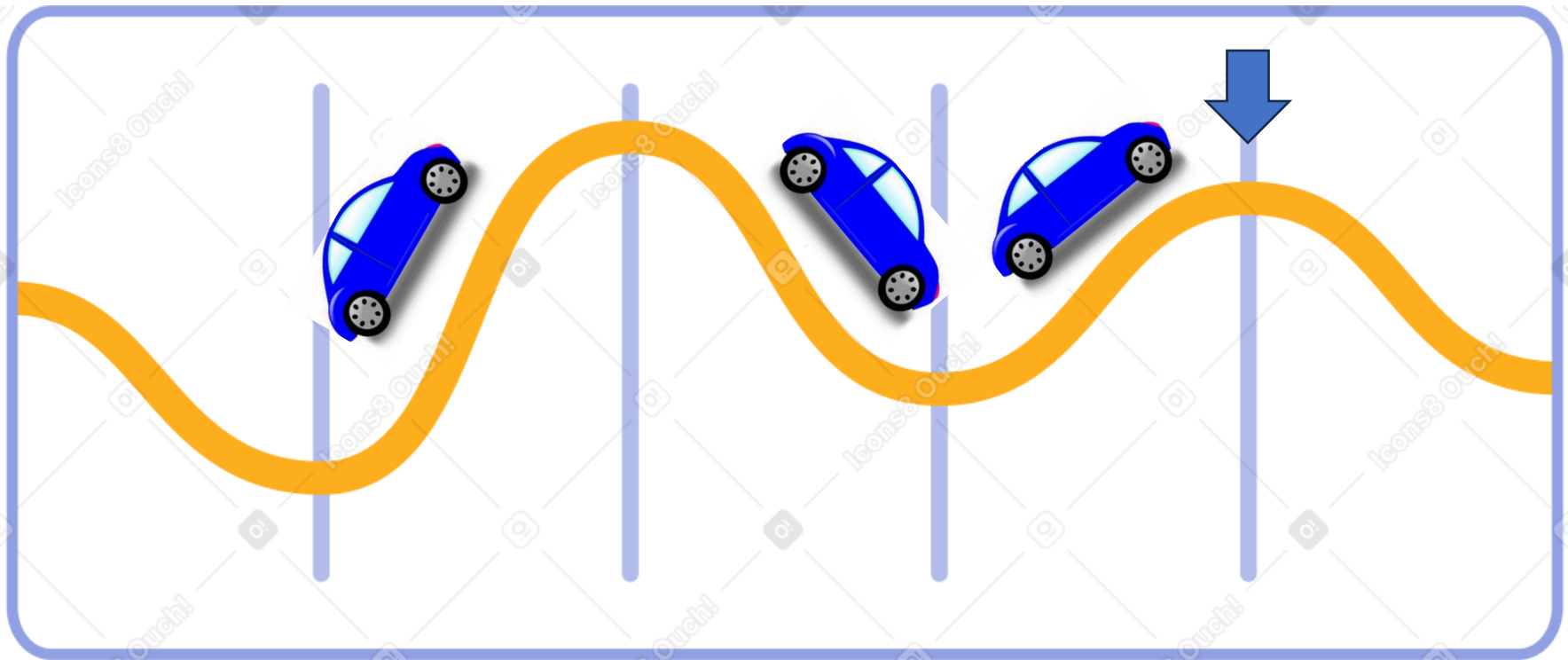


Shift out of neutral, & apply a little gas

Hit the Gas Phase

Take your foot off the pedal and coast phase

Bumps in the road/
Slide back phase



Recognize that antimicrobial stewardship in the emergency department is challenging

- Challenges
 - ~~Everyone is~~ EDs are busy
 - Diagnostic uncertainty
 - ~~Lack of~~ stewardship representation
 - Delay in urine culture results



- Focus on changing behavior and future prescribing practices
 - Most effective and sustainable changes = successful integration of cultural, regulatory, and individual change



What influences clinician behavior?

- Data (usually) keep sharing it
- Ease of use make the right the decision the easy one
- Peers (esp. Influential ones) make more friends
- Outcomes (the heart and the head) share the wins, stewardship moments & positive feedback



Influencing behavior: the MINDSPACE way

Achieving sustainability

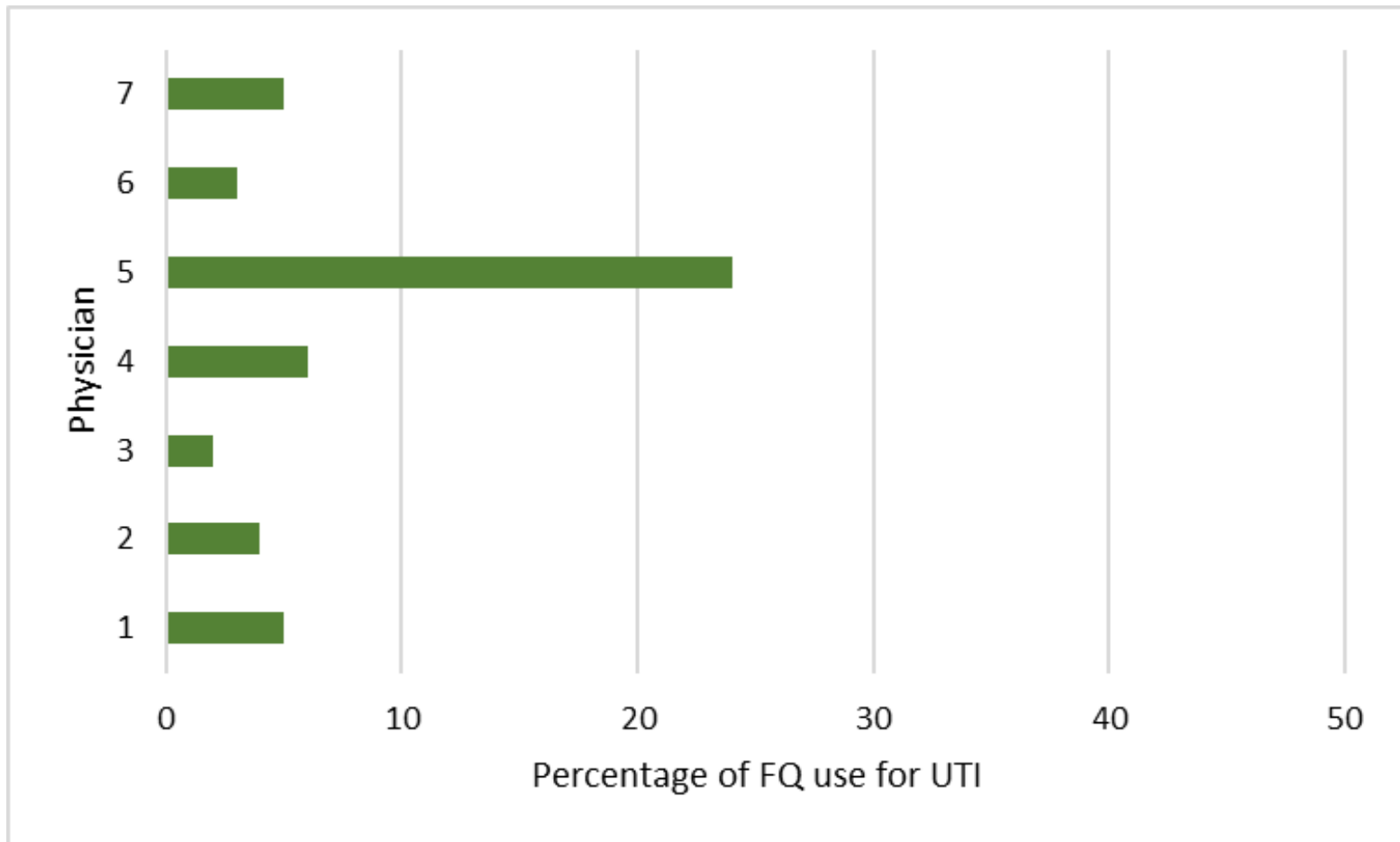
Messenger	We are heavily influenced by who communicates information
Incentives	Our responses to incentives are shaped by predictable mental shortcuts such as strongly avoiding losses
Norms	We are strongly influenced by what others do
Defaults	We 'go with the flow' of pre-set options
Salience	Our attention is drawn to what is novel and seems relevant to us
Priming	Our acts are influenced by sub-conscious cues
Affect	Our emotional associations can powerfully shape our actions
Commitments	We seek to be consistent with our public promises, and reciprocate acts
Ego	We act in ways that make us feel better about ourselves



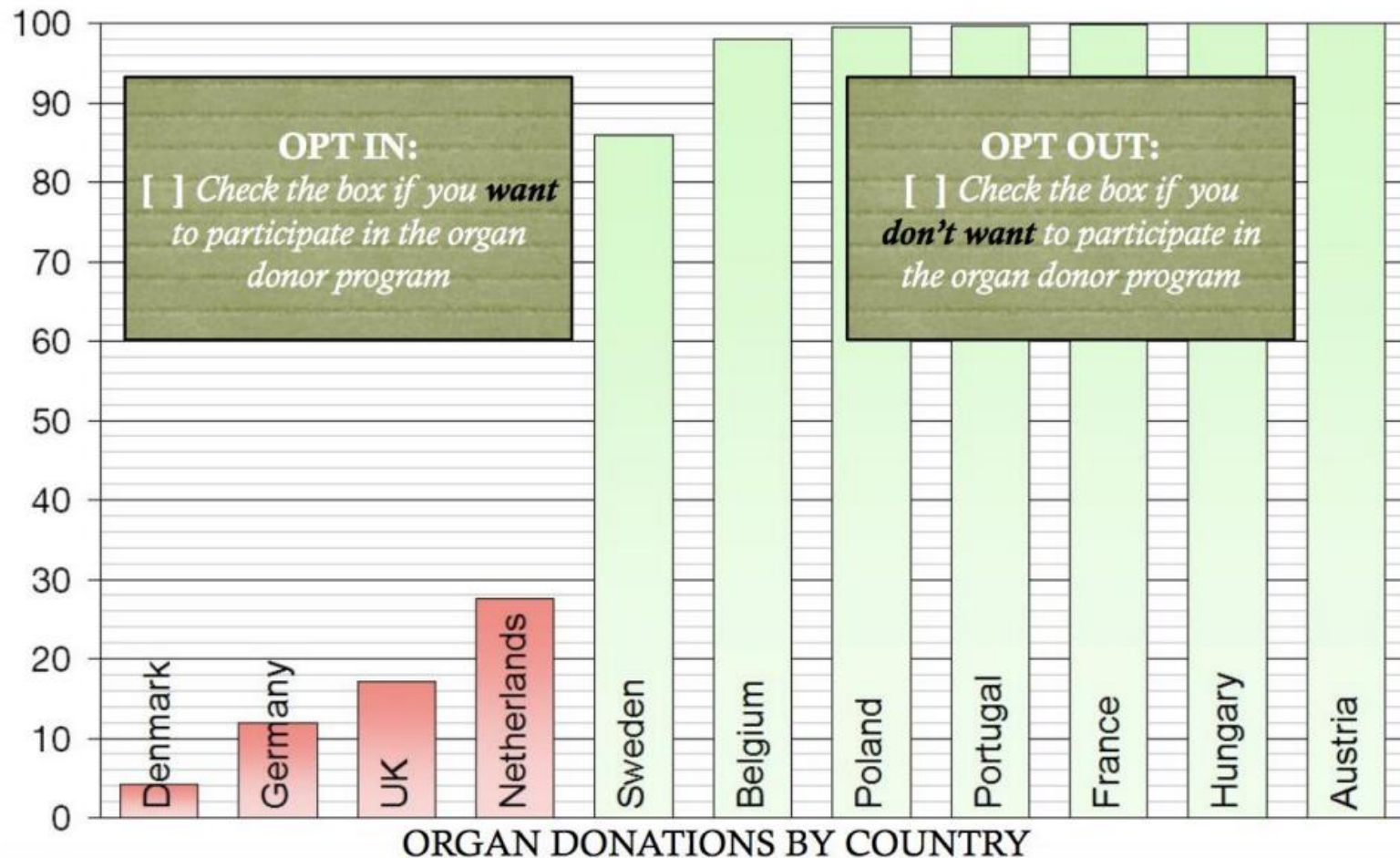
We tend to do what others around us are doing

Achieving sustainability: watch out for staff turnover and new practice

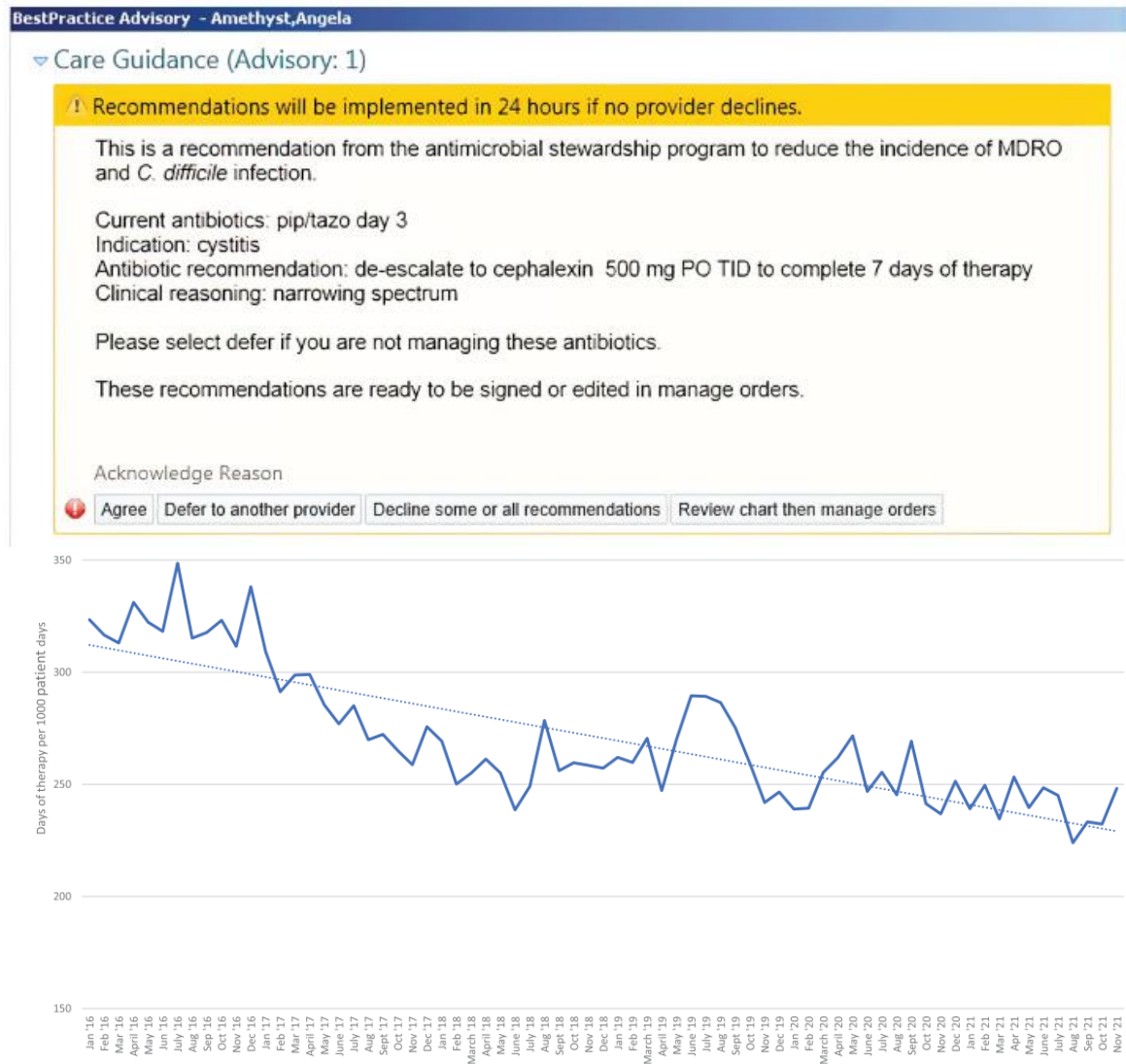
- If the norm is desirable, let people know about it



We 'go with the flow' of pre-set options



Opt-out approach decreases antimicrobial use



25% reduction in target antimicrobial use was achieved and sustained with the program.

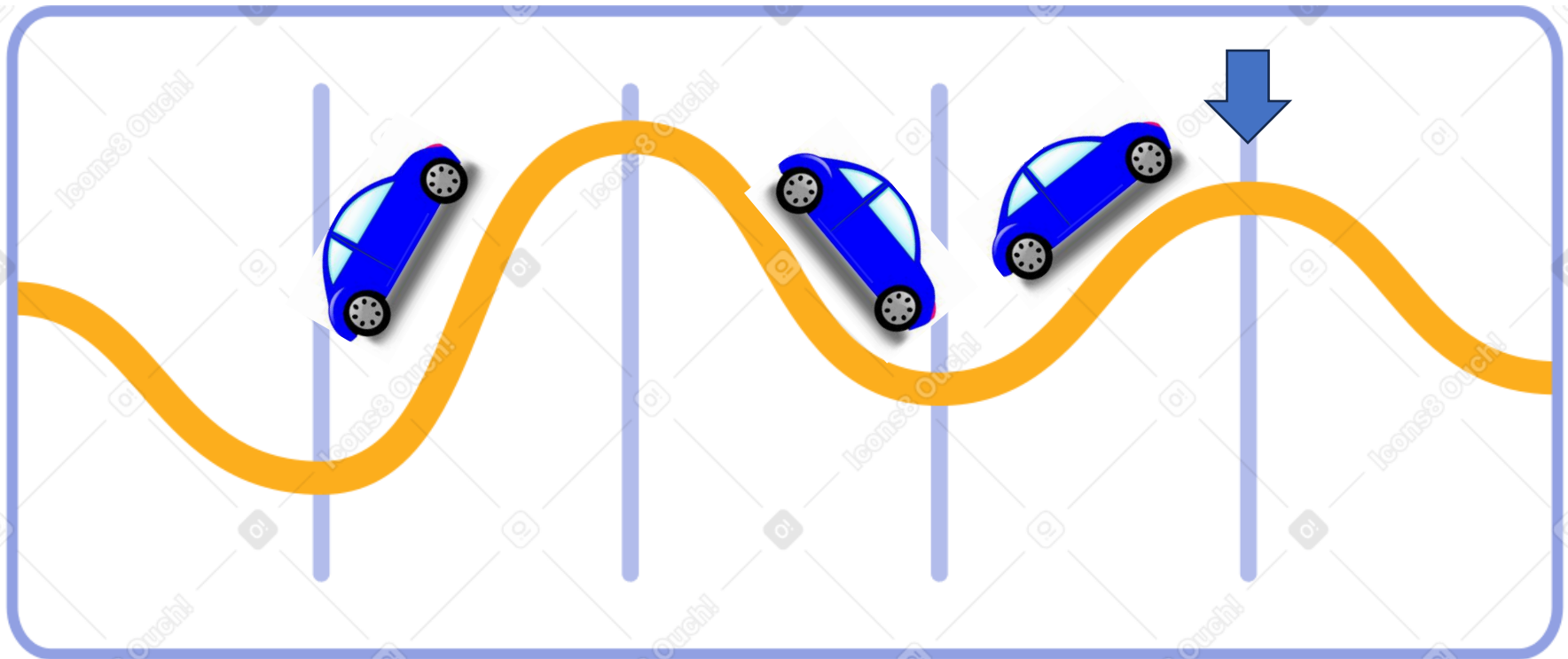


Automatic EMR settings = Cruise Control (set it and forget it)

Hit the Gas Phase

Take your foot off the pedal and coast phase

Bumps in the road/
Slide back phase



Our emotional associations can powerfully shape our actions

Affect

- Stories and individuals
 - Misdiagnosis of UTI
 - Harm from unnecessary antibiotic use
- Maintaining gains = a success



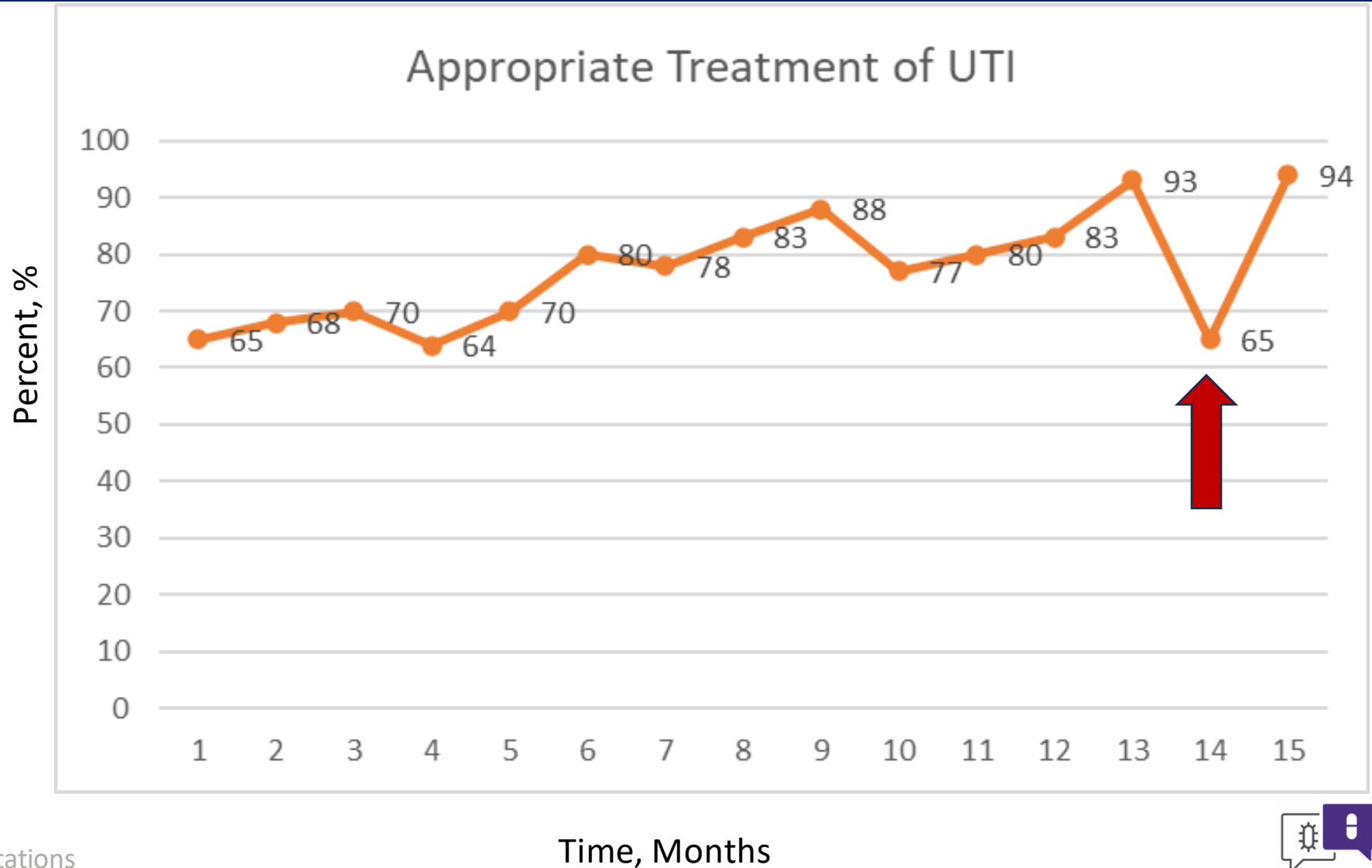
Keep a Cache of Cases

- Call out good behavior when you see it

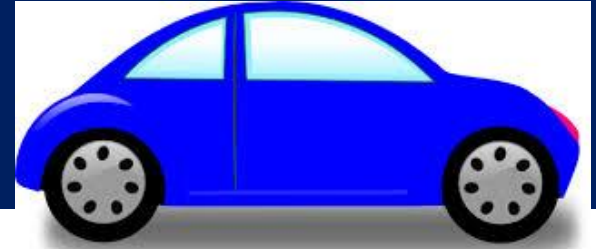
<Sandy's wall>



Sustainability and Anticipating the Bumps



Final thoughts



- You've made so many gains
- Culture change takes time & doesn't map on a graph
- Sustaining is a win – make sure you celebrate a flat curve (i.e. share with leadership, share with meetings)
- Keep calm and carry on

