



HEALTH QUALITY & SAFETY  
COMMISSION NEW ZEALAND

*Kupu Taurangi Hauora o Aotearoa*



## Safe use of opioids collaborative

Beth Loe IMSN meeting 2015



## Getting it right can reduce harm

Patient falls that result in fractures reduced by up to 30%

CLAB\* rates reduced to fewer than one per 1000 line days

\*Central line associated bacteraemia



Surgical complications reduced by about a third

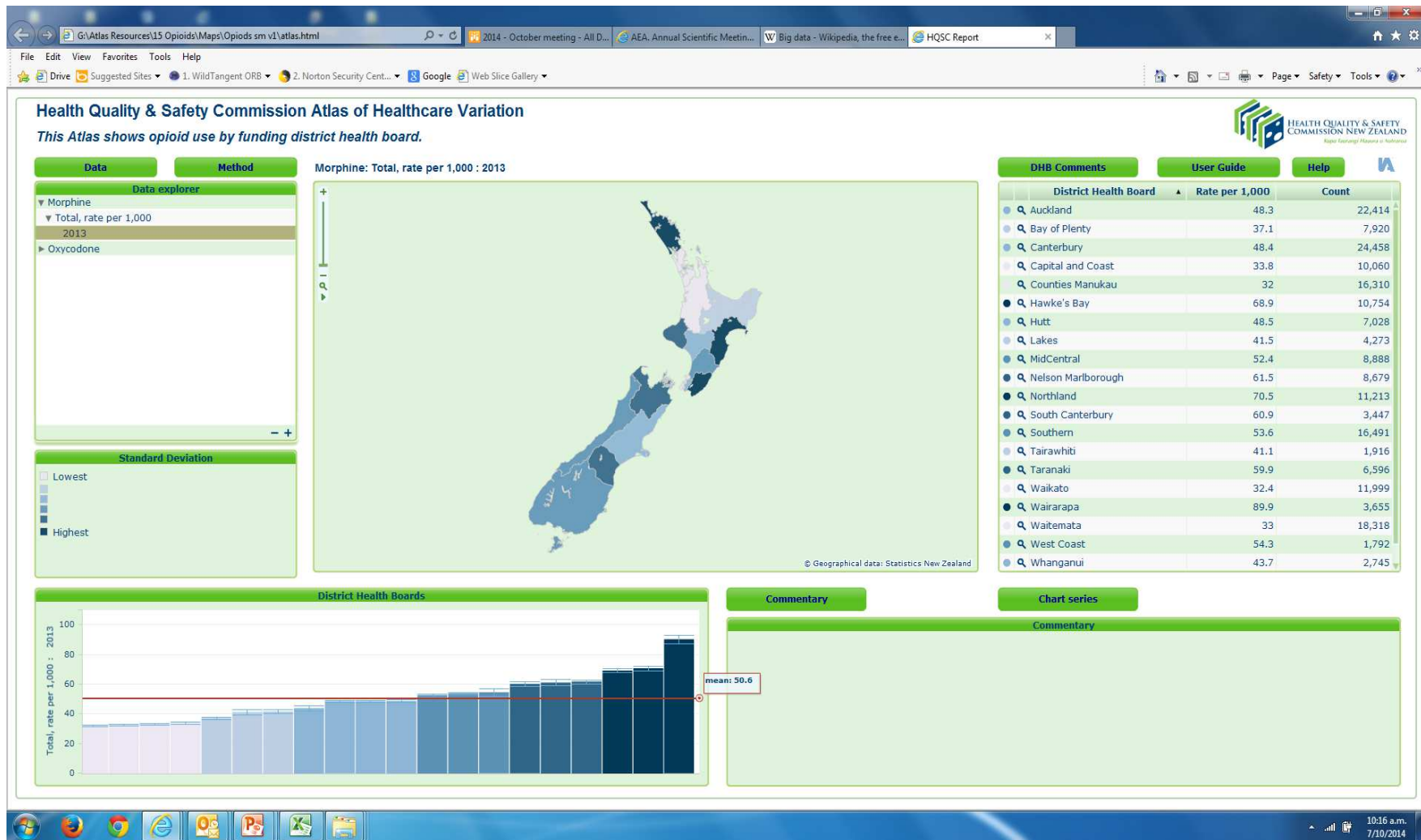
Potentially adverse drug events reduced by a quarter

## Use of opioids in NZ\*

- In 2013, an average of 17/1000 people received a strong opioid.
- There was a greater than threefold variation between DHBs.
- People identifying as European/Other ethnicity were dispensed a strong opioid 2–4 times more than other ethnic groups.
- Use increased significantly with age groups.
- Fourteen percent of people receiving a strong opioid took the opioid for six or more weeks.

\* [Atlas of Healthcare Variation](#)

# Morphine

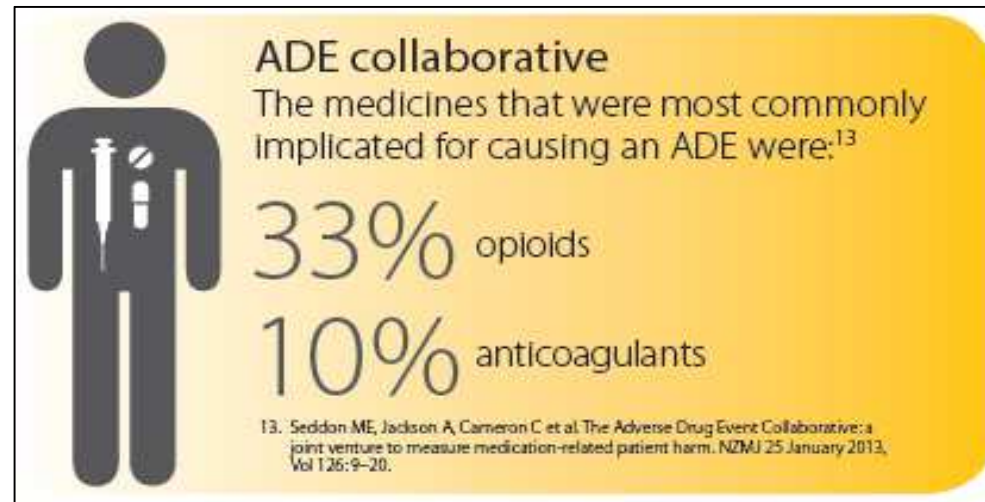




## Why a formative collaborative?

- A new approach to reducing harm from high risk medicines
- Use an improvement method that relies on spread and adaptation of existing knowledge to multiple settings to accomplish a common aim
- No internationally agreed bundle of interventions (unlike CLAB)
- The Commission had adopted the collaborative model for improvement projects

## Why opioids?



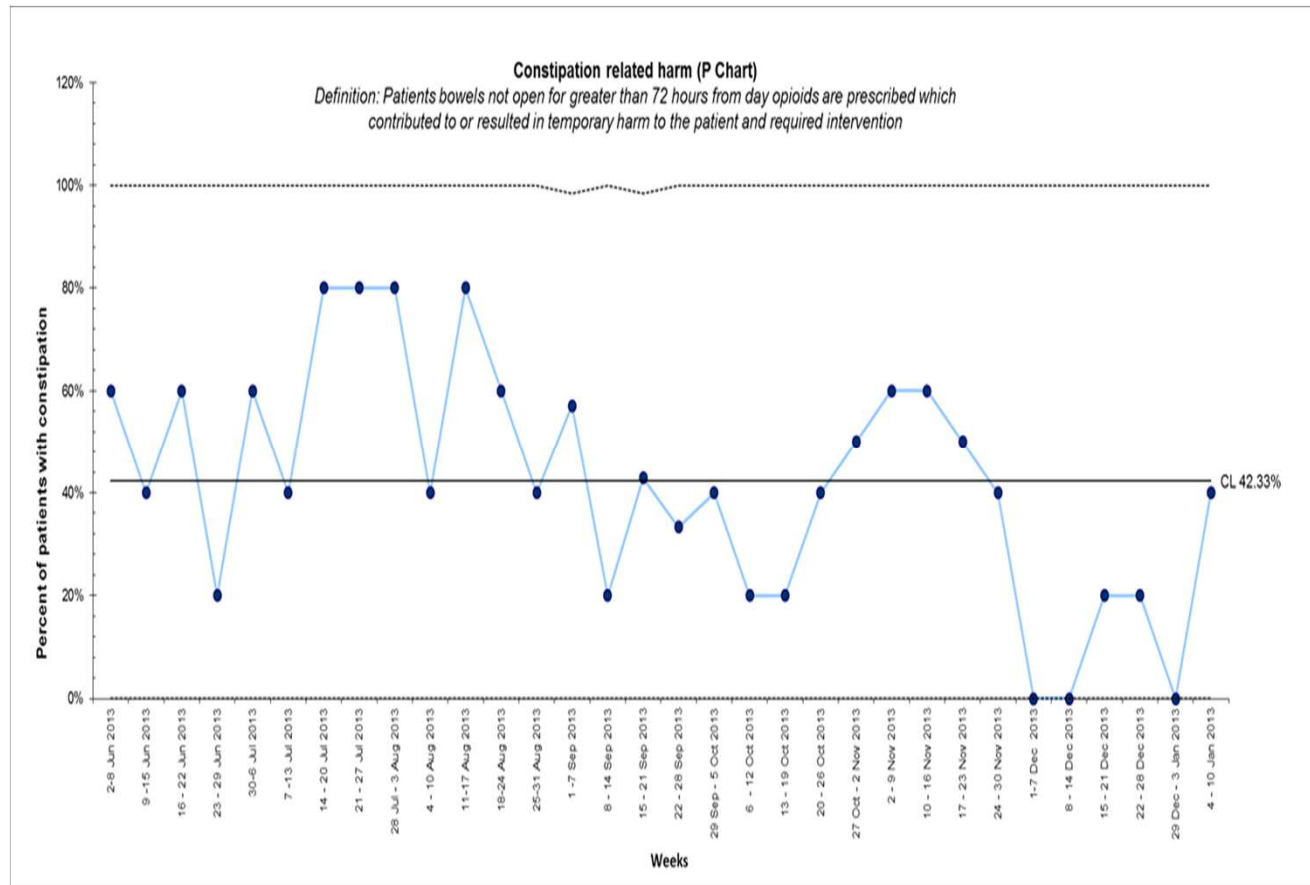
Serious adverse event reports featured opioids

For example

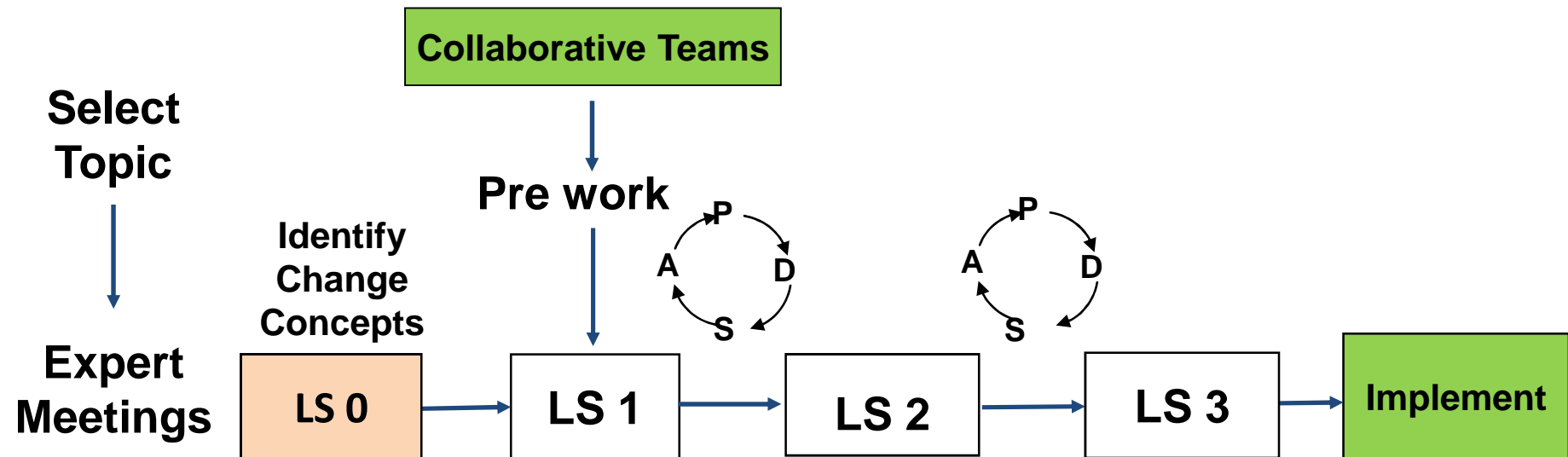
“68 year old woman had an elective surgical procedure. She was discharged home after 2 days on two narcotics. She had not opened her bowels prior to discharge and had no laxatives prescribed. She re-presented with bowel obstruction and died 8 days later.”



# Engaging the sector-constipation harm



# Collaborative Methodology



LS – Learning Session

The Breakthrough Series: *IHIs Collaborative Model for Achieving Breakthrough Improvement*

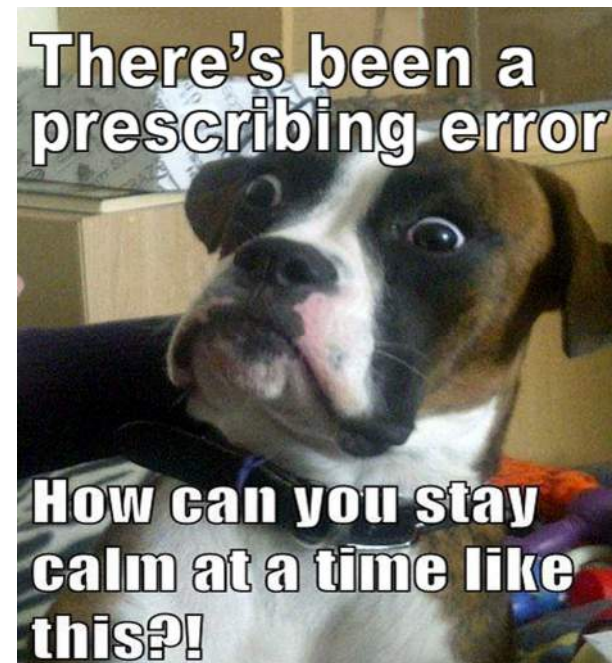
**Supports: emails/ visits/ reports/ sponsors / meetings/ assessments / conference calls**





## Opioid related harm

- Over prescribing
- Under prescribing
- Lack of monitoring
- Adverse drug reactions





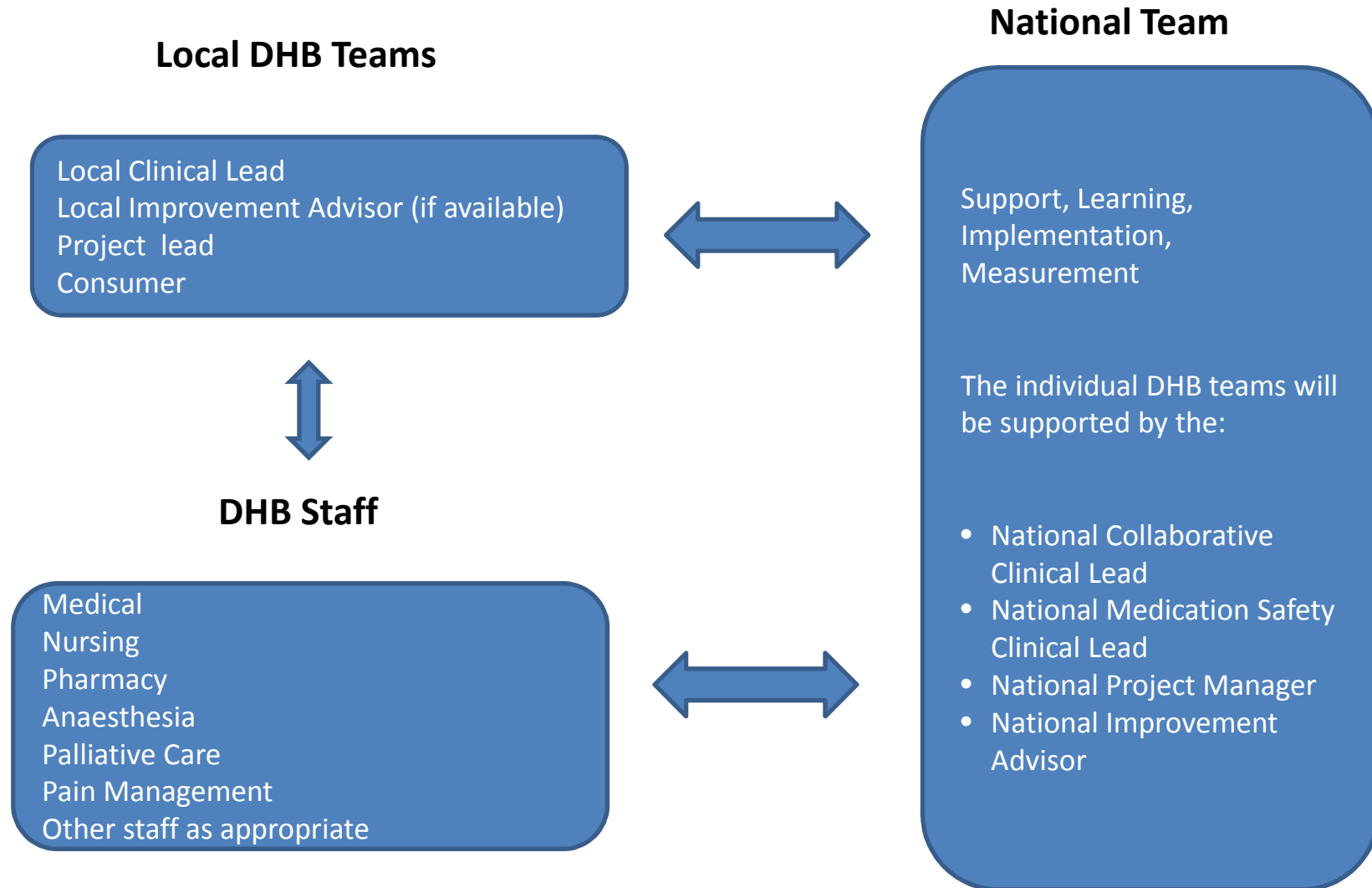
## Expert faculty identified harm

- opioid related ventilatory impairment
- sedation
- constipation
- nausea and vomiting
- uncontrolled pain
- confusion/delirium
- falls
- itch

## Collaborative aim

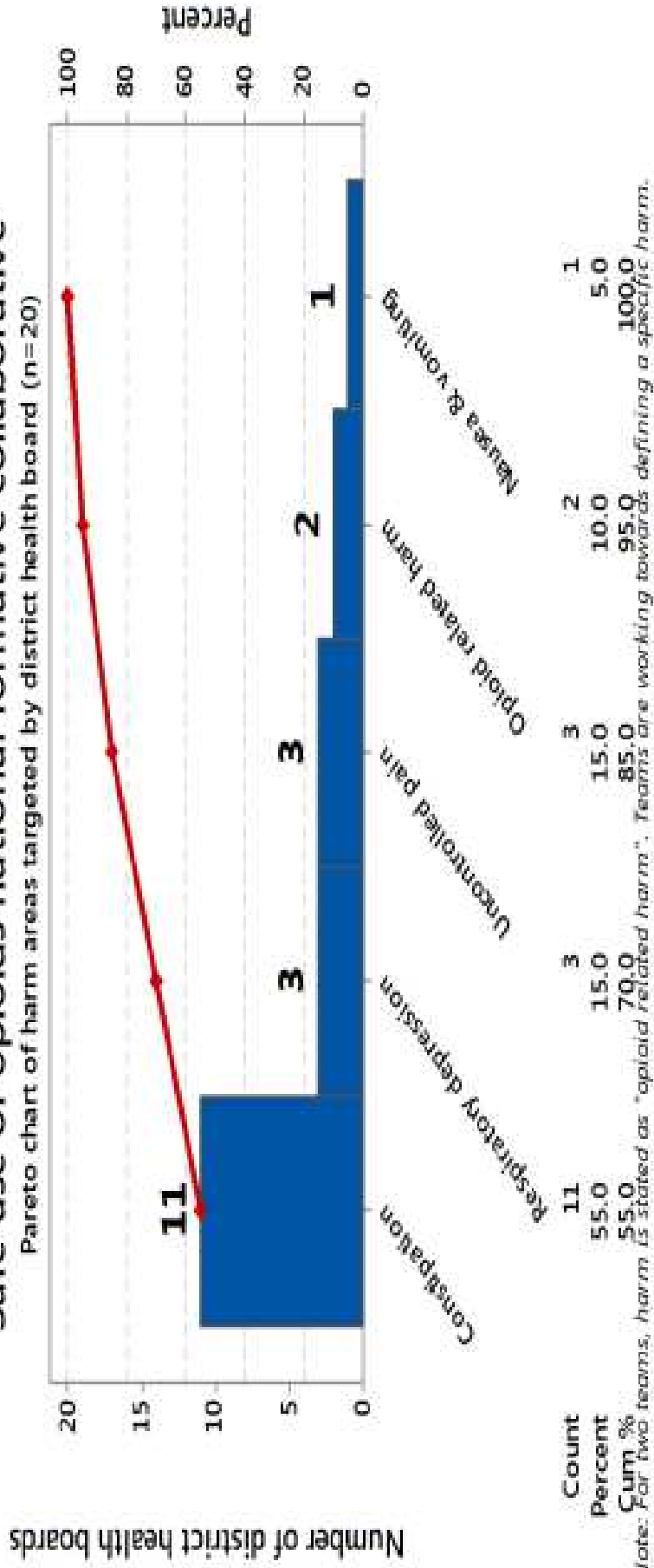
To reduce opioid-related harm nationally by 25% across participating areas of District Health Board hospitals by April 2016.

# Potential collaborative team members



## Safe use of opioids national formative collaborative

Pareto chart of harm areas targeted by district health board (n=20)

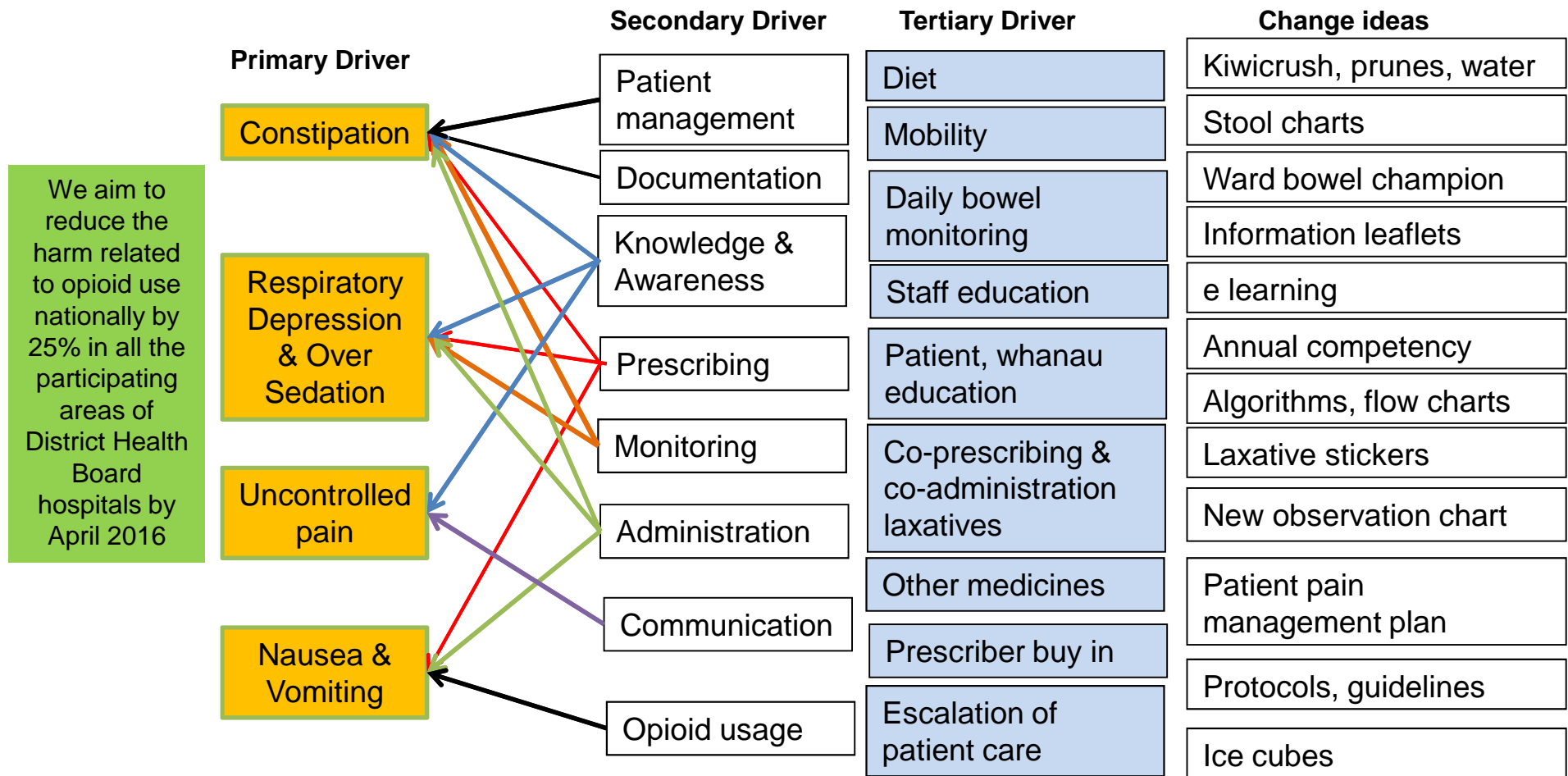




# Harm areas

District health board	Primary harm	Secondary harm	Tertiary harm
MidCentral	Constipation		
Capital and Coast	Constipation		
Waikato	Constipation		
Bay of Plenty	Constipation		
Lakes	Constipation		
Taranaki	Constipation	Discharge	Oxycodone use
Counties Manukau	Constipation		
West Coast	Constipation		
Nelson Marlborough	Constipation		
Hawkes Bay	Constipation		
Southern	Nausea and vomiting		
Auckland	Nausea and vomiting	Discharge	
Northland	Respiratory depression	Constipation	Discharge
Mercy Ascot (private)	Respiratory depression		
Waitemata	Uncontrolled pain	Patient experience	
Canterbury	Uncontrolled pain		
Whanganui	Uncontrolled pain		
South Canterbury	?		
Tairāwhiti	Engaged but no PDSA		
Hutt & Wairarapa	Engaged but no PDSA		

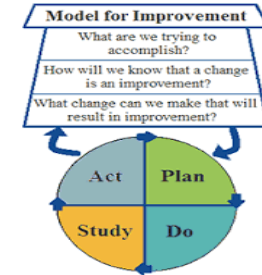
# National driver diagram (not complete)



We aim to reduce the harm related to opioid use nationally by 25% in all the participating areas of District Health Board hospitals by April 2016



Share and learn from each other and strengthen networks



Learn methods to accelerate testing of changes and improvements



Develop change ideas to reduce harm associated with opioids and learn how to apply them practically



Develop a strategy and a plan for action period two

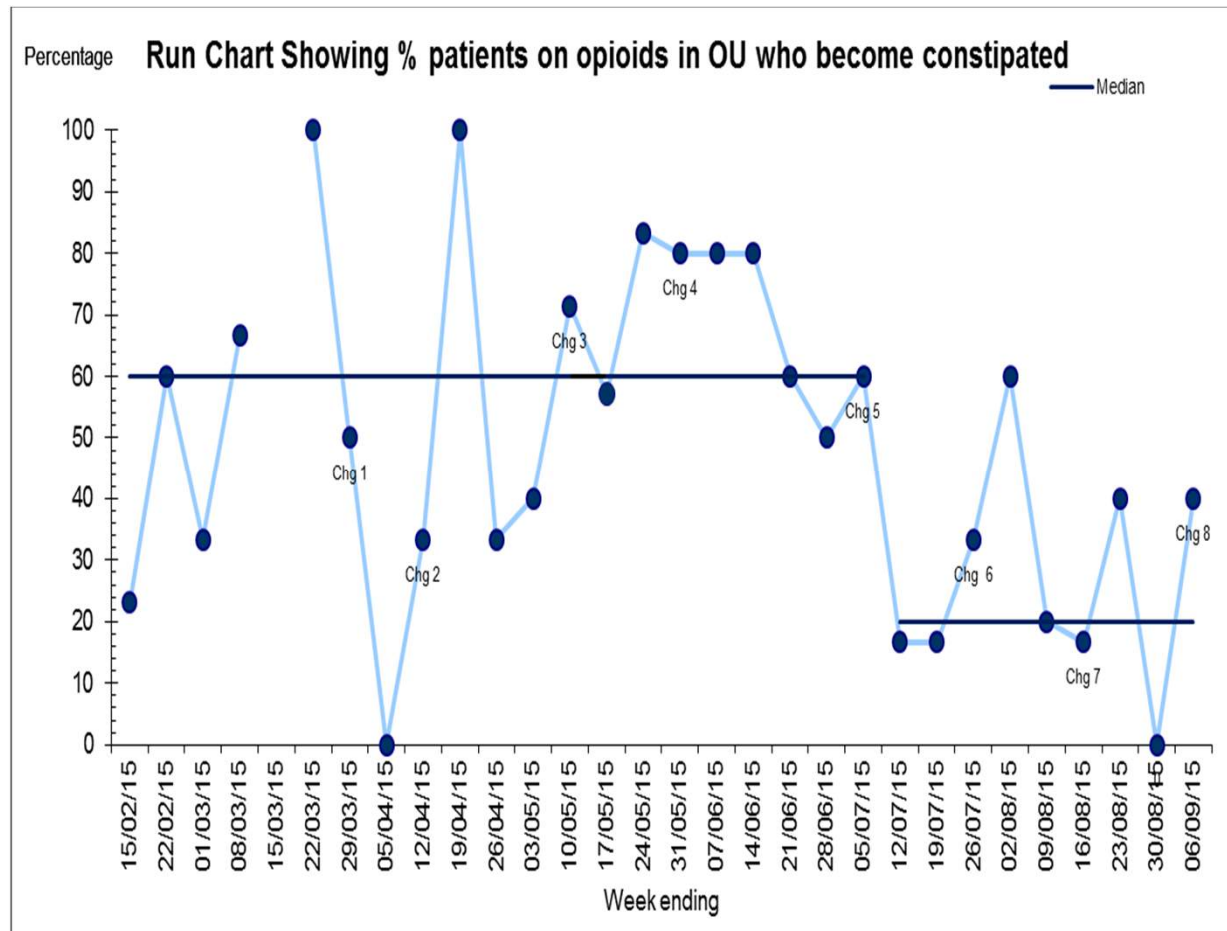
Gain a deeper understanding of quality improvement methodologies and tools



Discuss and learn about measurement, data collection and reporting related to opioid safety



# Constipation run chart (one DHB)



## Safe Use of Opioids

PDSA Series Name	Anti-emetics	PDSA cycle #	3
Planned Start Date	04/05/2015	Planned Finish Date	9/08/2015

### Objective for this PDSA Cycle:

To test whether Ondansetron contributes significantly to constipation by changing its ranking from 1<sup>st</sup> line anti-emetic to third line (rescue).

Change the order of anti-emetic use to: first line Prochlorperazine 3-6mg buccal 12hrly, second line Cyclizine 12.5-25mg po/iv 8 hrly, third line Ondansetron 4-8mg po/iv 8hrly;

Place a sticker on drug chart with pre-printed ranked anti-emetic choices and doses for doctors to date and sign as appropriate for patients.

### What question(s) do we want to answer on this PDSA cycle?

1. Does the reduced use of Ondansetron will reduce the constipation rate in orthopaedic patients receiving opioids?
2. Does the sticker placed on drug chart as part of antiemetic prescription introduce further risks?
3. Does the use of a sticker with antiemetic ranking reduce the use of Ondansetron?
4. Will the change in antiemetic use lead to an increase in Nausea & Vomiting

This PDSA will be used to:  Collect Data     Develop a Change     Test a Change     Implement a Change

### Plan: Fill the sections below as part of planning

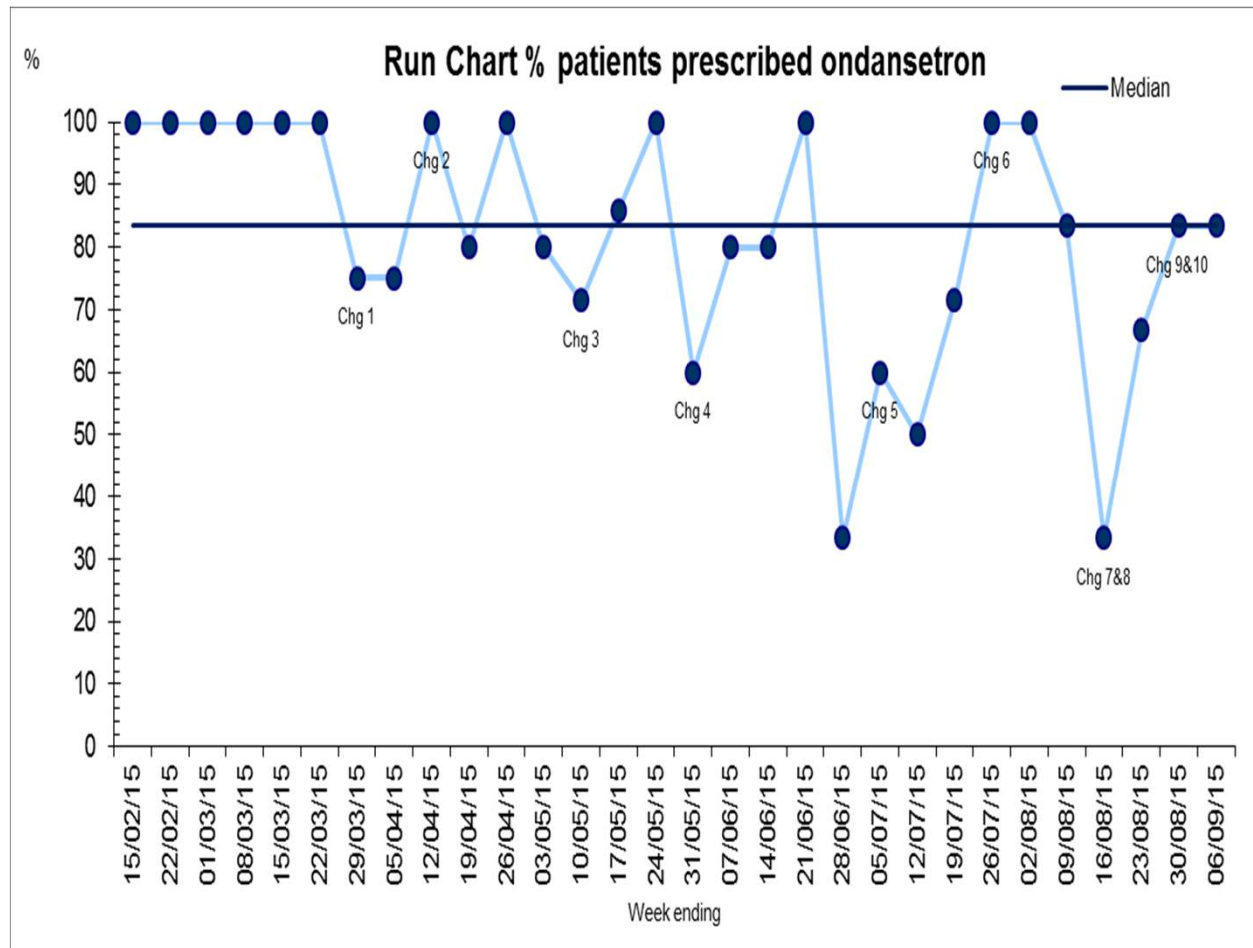
**Change Idea:** Briefly describe the specific change you plan to test. Use the prompts below where applicable.

What are we going to do?

Place the stickers in all the Orthopaedic patient drug charts.

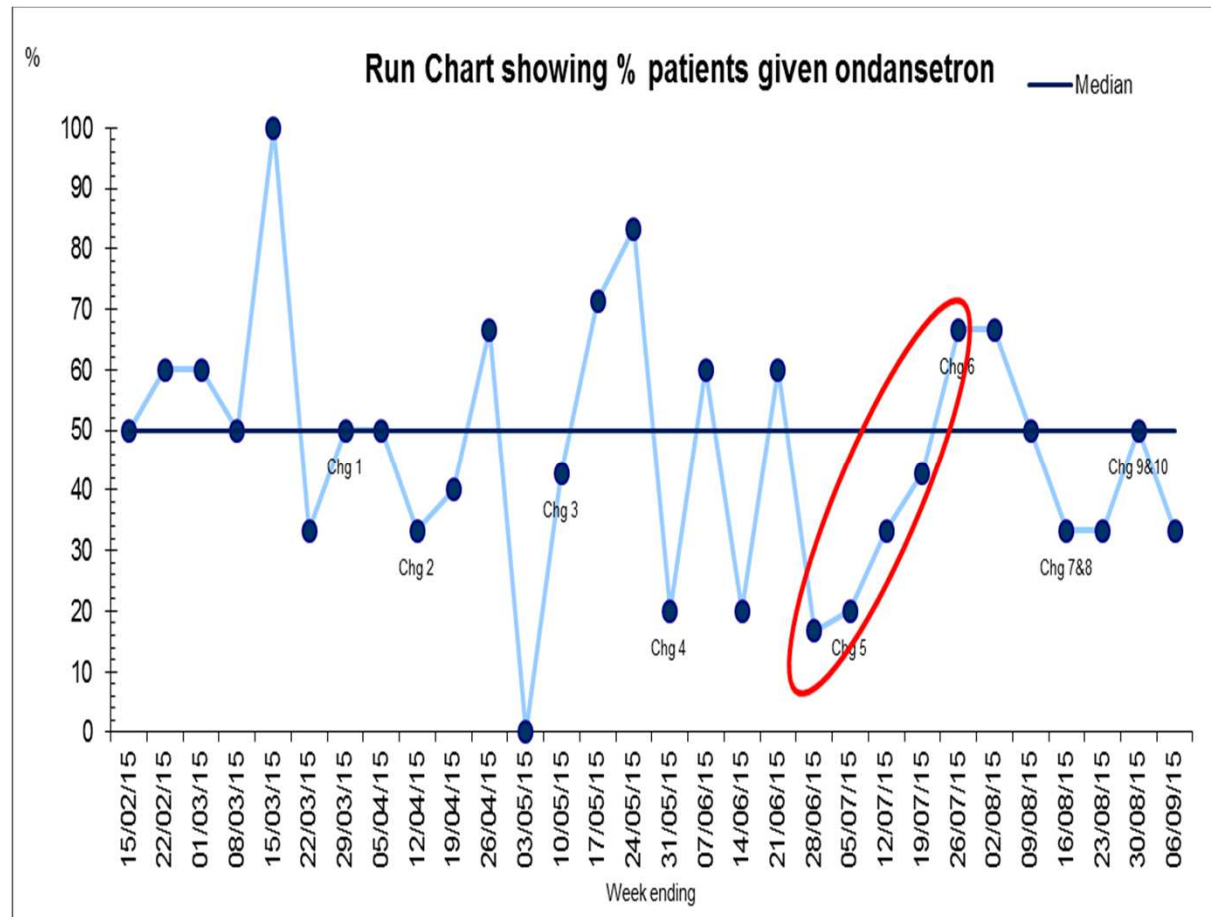


# Ondansetron prescribing





# Ondansetron administration



## Next steps.....

### **For the DHB teams**

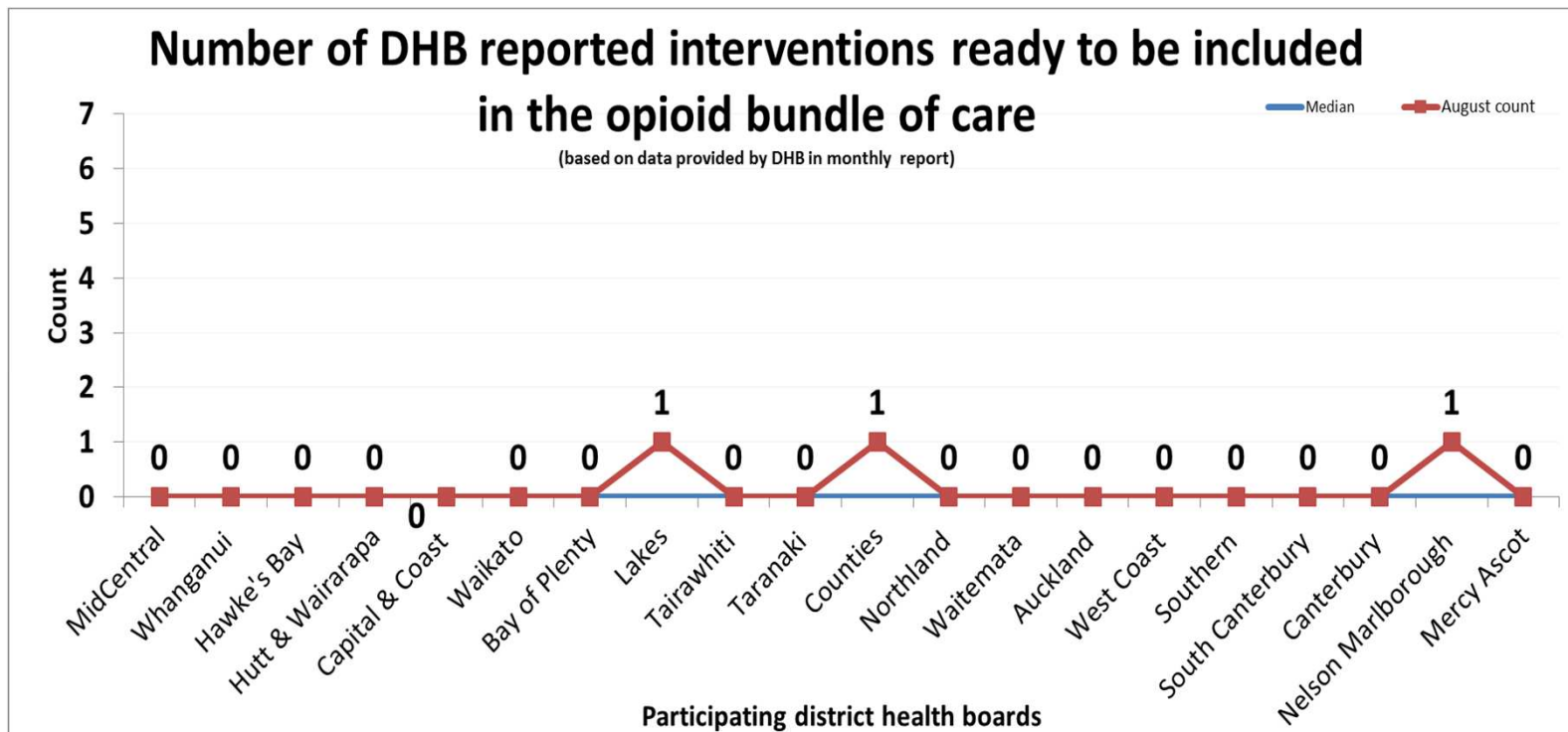
- Testing interventions
- Keep collecting data
- Developing evidence base for the bundle

### **For the national team**

- Reviewing the work DHBs are doing and challenging their thinking
- Looking forward to identify interventions for the bundle
- Scoping the use of ICD coding as an ongoing measure of opioid-related harm



# Progress towards the bundle





# Evaluation

Aim: To evaluate the effectiveness of the collaborative methodology as an approach to reducing harm related to opioid use.

## Outcome measures

- Collaborative effectiveness in reducing opioid related-harm
- Bundle of care with evidence-based interventions for reducing opioid-related harm
- Changes in improvement science capabilities
- Strength of clinical network
- Effectiveness of the measurement system to demonstrate change and support improvement at national and DHB level

# The goal

