

Measurement for Improvement – Developing Effective Change Concepts Using Driver Diagrams

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Health Quality & Safety Commission New Zealand

Safe Use of Opioids National Collaborative

Learning Session Two

Hagley Oval, Christchurch (June 23rd and 24th, 2015)

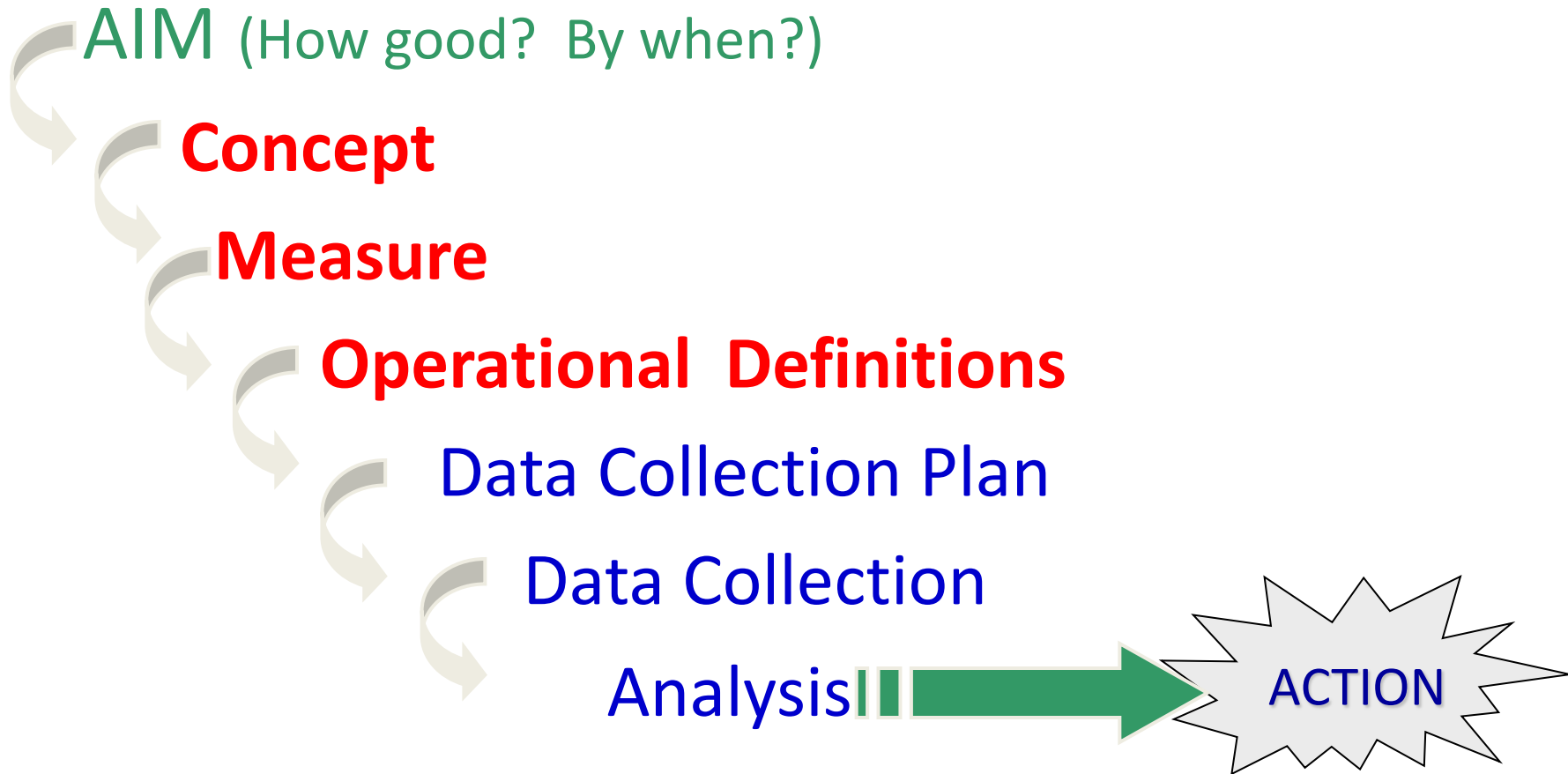
Acknowledgements

- Many thanks to IHI and Mr. Robert Lloyd for some of the content in the following slides.

Discussion Topics

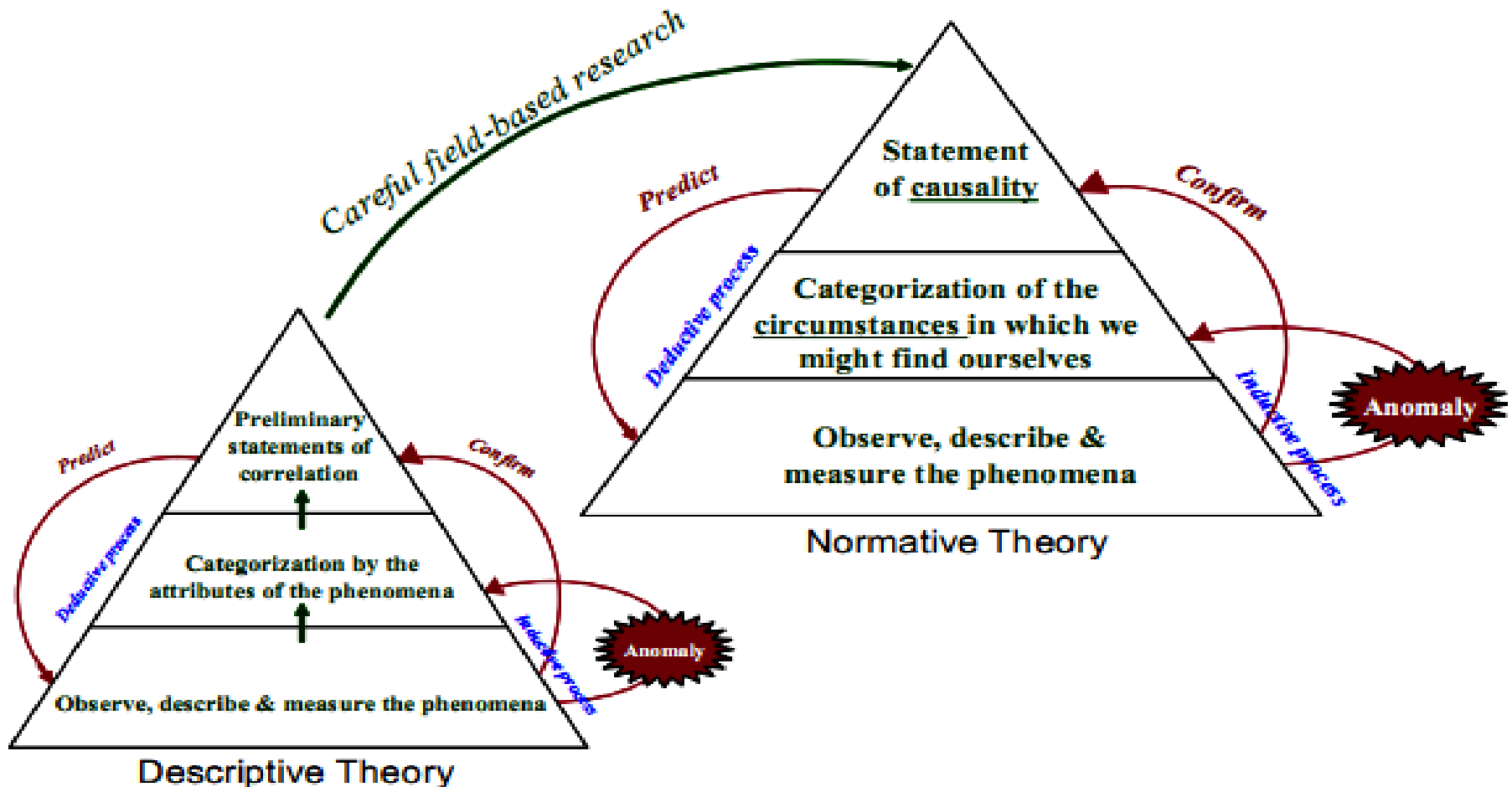
- **Driver Diagrams**
- **Moving from a Concept to a Measure**
- **Operational Definitions**

The Quality Measurement Journey

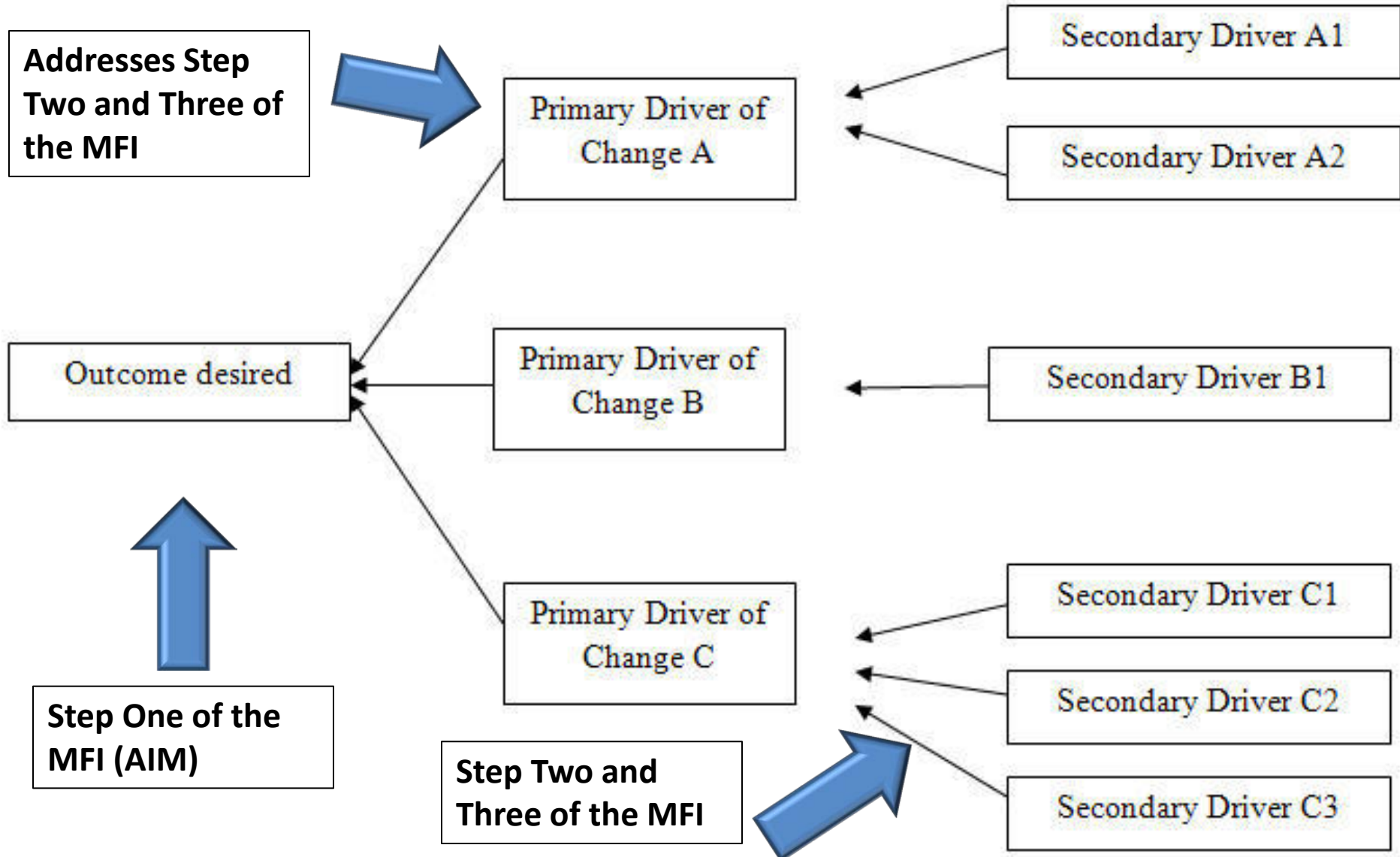


Source: Lloyd, R. Quality Health Care. Jones and Bartlett Publishers, Inc., 2004: 62-64.

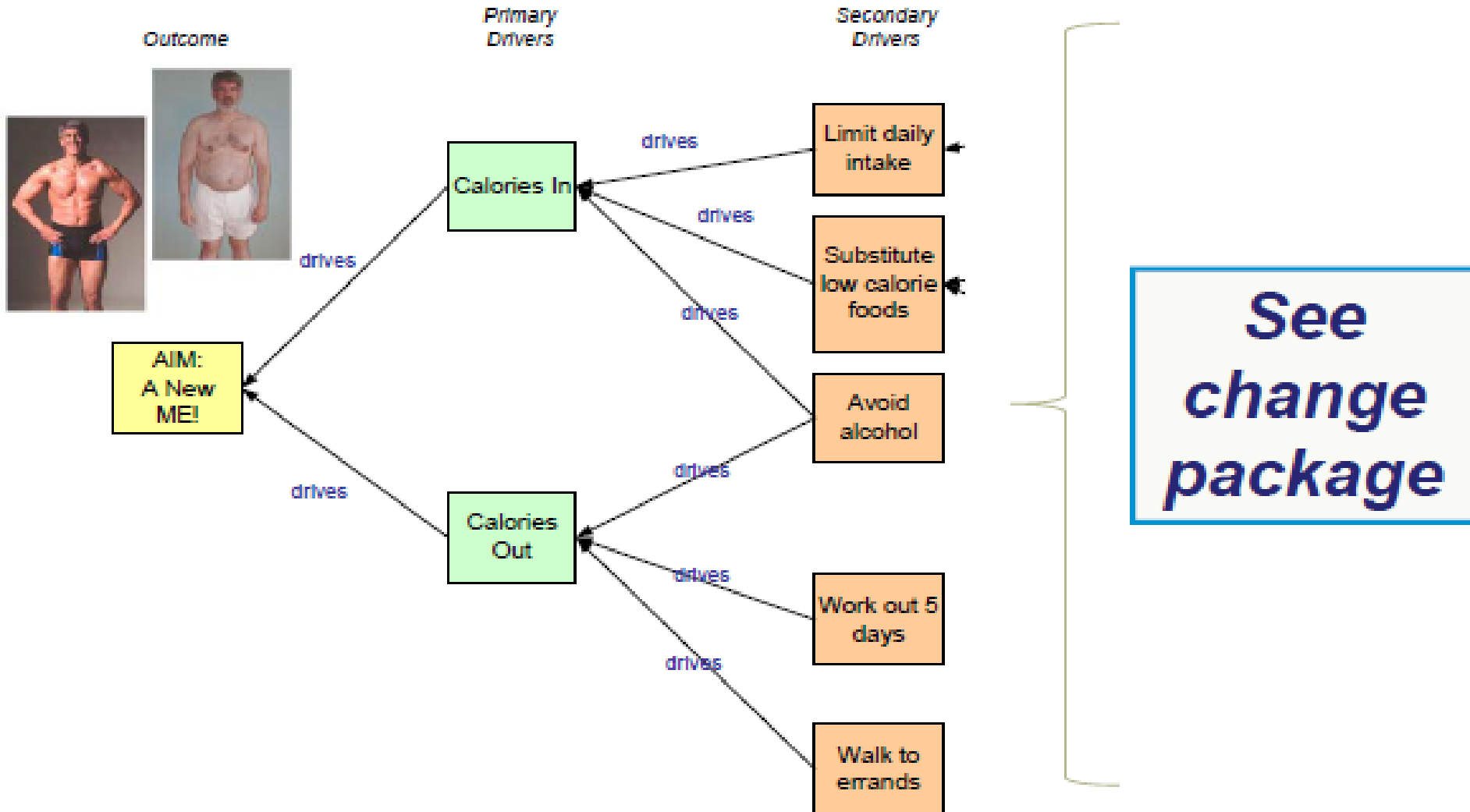
Bridging the Transition Between Descriptive Theory and Normative Theory



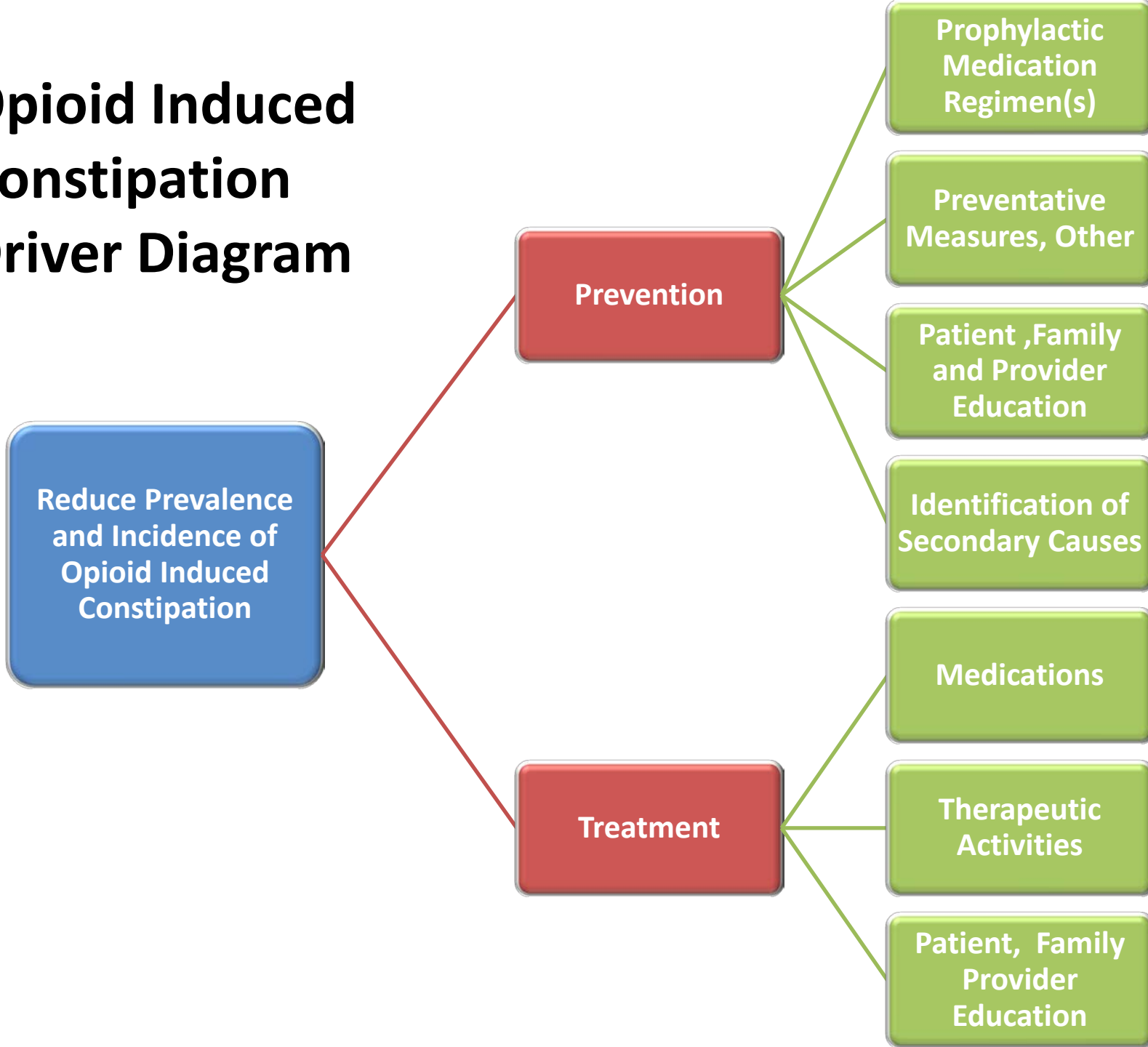
Driver Diagram



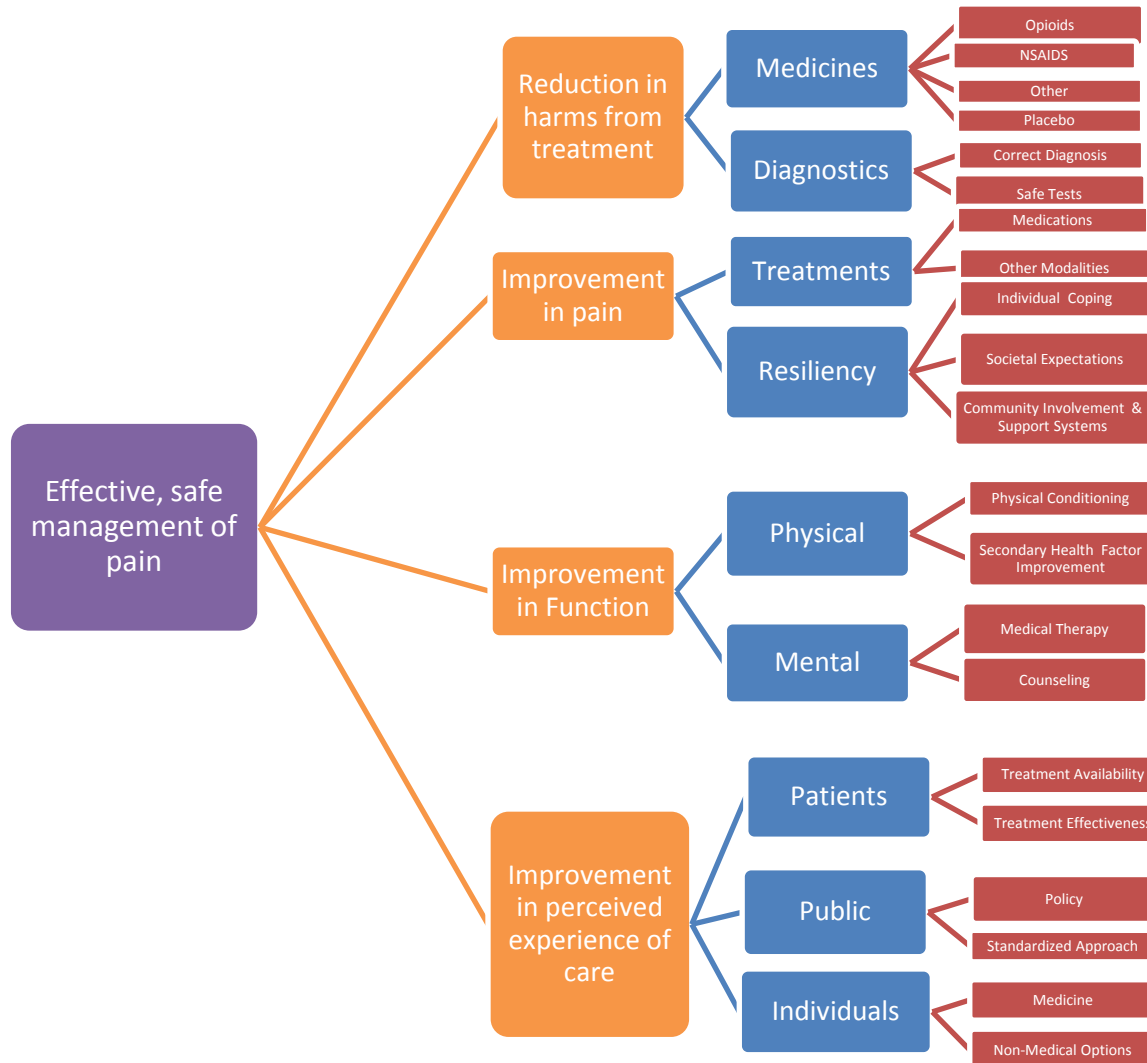
Example of “A New Me” Driver Diagram




Opioid Induced Constipation Driver Diagram



Driver for Safe, Effective Pain Management



Moving from a Concept to Measure



*“Hmmm...how do I move
from a concept
to an actual measure?”*

*Every concept can have MANY measures.
Which one is most appropriate?*

Every Concept Can Have Many Measures

Concept

**Opioid Induced Constipation
(OIC)**

**Opioid Induced Respiratory Depression
(OIRD)**

Addiction Prevention

Potential Measures

Percent of patients with a daily BM
Percent of patients who received prophylactic medications per protocol who were also receiving opioids.

Percent of patients who received OIC education during hospitalization.

Number of cases

Percent of cases

Number of naloxone rescue cases

Number of non-cancer patients who died who were prescribed opioids.

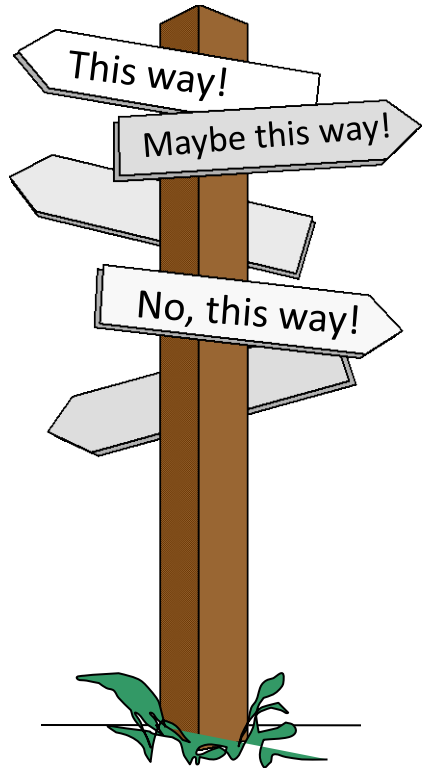
Percent of patients who had risk analysis prior to being prescribed opioids.

Percent of cases who had UDS prior to initiation of opioids.

Number of patients who sought opioids in the ED.

Number of positive UDS's for street drugs.

Operational Definitions



“Would you tell me, please, which way I ought to go from here,” asked Alice?

“That depends a good deal on where you want to get to,” said the Cat.

“I don’t much care where” - said Alice.

“Then it doesn’t matter which way you go,” said the Cat.

From Alice in Wonderland, Brimax Books, London, 1990.

An Operational Definition...

... is a description, in quantifiable terms, of what to measure and the steps to follow to measure it consistently.

- It gives communicable meaning to a concept
- Is clear and unambiguous
- Specifies measurement methods and equipment
- Identifies criteria
- Usually has a numerator and denominator
- Usually includes exceptions.

NON-SPECIFIC CHEST PAIN PATHWAY MEASUREMENT PLAN

<p>Measure Name (Provide a specific name such as medication error rate)</p>	<p>Operational Definition (Define the measure in very specific terms. Provide the numerator and the denominator if a percentage or rate. Indicate what is to be included and excluded. Be as clear and unambiguous as possible)</p>	<p>Data Source(s) (Indicate the sources of the data. These could include medical records, logs, surveys, etc.)</p>	<p>Data Collection: •Schedule (daily, weekly, monthly or quarterly) •Method (automated systems, manual, telephone, etc.)</p>	<p>Baseline •Period •Value</p>	<p>Goals •Short term •Long term</p>
<p>Percent of patients who have MI or Unstable Angina as diagnosis</p>	<p><u>Numerator</u> = Patients entered into the NSCP path who have Acute MI or Unstable Angina as the discharge diagnosis</p> <p><u>Denominator</u> = All patients entered into the NSCP path</p>	<p>1. Medical Records 2. Midas 3. Variance Tracking Form</p>	<p>1. Discharge diagnosis will be identified for all patients entered into the NSCP pathway 2. QA-UR will retrospectively review charts of all patients entered into the NSCP pathway. Data will be entered into MIDAS system</p>	<p>1. Currently collecting baseline data. 2. Baseline will be completed by end of 1st Q 2010</p>	<p>Since this is essentially a descriptive indicator of process volume, goals are not appropriate.</p>
<p>Number of patients who are admitted to the hospital or seen in an ED due to chest pain within one week of when we discharged them</p>	<p>Operational Definition: A patient that we saw in our ED reports during the call-back interview that they have been admitted or seen in an ED (ours or some other ED) for chest pain during the past week</p>	<p>All patients who have been managed within the NSCP protocol throughout their hospital stay</p>	<p>1. Patients will be contacted by phone one week after discharge 2. Call-back interview will be the method</p>	<p>1. Currently collecting baseline data. 2. Baseline will be completed by end of 1st Q 2010</p>	<p>Ultimately the goal is to have no patients admitted or seen in the ED within a week after discharge. The baseline will be used to help establish initial goals.</p>
<p>Total hospital costs per one cardiac diagnosis</p>	<p><u>Numerator</u> = Total costs per quarter for hospital care of NSCP pathway patients</p> <p><u>Denominator</u> = Number of patients per quarter entered into the NSCP pathway with a discharge diagnosis of MI or Unstable Angina</p>	<p>1. Finance 2. Chart Review</p>	<p>Can be calculated every three months from financial and clinical data already being collected</p>	<p>1. Calendar year 2010 2. Will be computed in June 2010</p>	<p>The initial goal will be to reduce the baseline by 5% within the first six months of initiating the project.</p>

Exercise: Driver Diagram Review

- Take some time to look at your driver diagrams.
- Based on your current learning about the problem you are trying to solve, does your driver diagram show concepts most consistent with descriptive or normative theory?
- Have you established clear measures that are tied to the concepts in your driver diagram?
- Are your operational definitions clear and non-ambiguous?
 - How do they compare to others in the collaborative who may be working on the same problem?
- **Spend a few minutes working on your own then compare your ideas with others at your table.**

Operational Definition Worksheet[©]

Team name: _____

Date: _____ Contact person: _____

WHAT PROCESS DID YOU SELECT?

WHAT SPECIFIC MEASURE DID YOU SELECT FOR THIS PROCESS?

OPERATIONAL DEFINITION

Define the specific components of this measure. Specify the numerator and denominator if it is a percent or a rate. If it is an average, identify the calculation for deriving the average. Include any special equipment needed to capture the data. If it is a score (such as a patient satisfaction score) describe how the score is derived.

When a measure reflects concepts such as accuracy, complete, timely, or an error, describe the criteria to be used to determine “accuracy.”

Source: R. Lloyd. *Quality Health Care: A Guide to Developing and Using Indicators*. Jones and Bartlett, 2004.

Operational Definition Worksheet[©] (cont'd)

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DATA COLLECTION PLAN

Who is responsible for actually collecting the data?

How often will the data be collected? (e.g., hourly, daily, weekly or monthly?)

What are the data sources (be specific)?

What is to be included or excluded (e.g., only inpatients are to be included in this measure or only stat lab requests should be tracked).

How will these data be collected?

Manually _____ From a log _____ From an automated system

BASELINE MEASUREMENT

What is the actual baseline number? _____

What time period was used to collect the baseline? _____

TARGET(S) OR GOAL(S) FOR THIS MEASURE

Do you have target(s) or goal(s) for this measure?

Yes ___ No ___

Specify the **External** target(s) or Goal(s) (specify the number, rate or volume, etc., as well as the source of the target/goal.)

Specify the **Internal** target(s) or Goal(s) (specify the number, rate or volume, etc., as well as the source of the target/goal.)

Dashboard Worksheet[©]

Name of team: _____

Date: _____

<p>Measure Name (Provide a specific name such as medication error rate)</p>	<p>Operational Definition (Define the measure in very specific terms. Provide the numerator and the denominator if a percentage or rate. Indicate what is to be included and excluded. Be as clear and unambiguous as possible)</p>	<p>Data Source(s) (Indicate the sources of the data. These could include medical records, logs, surveys, etc.)</p>	<p>Data Collection: <ul style="list-style-type: none"> •Schedule (daily, weekly, monthly or quarterly) •Method (automated systems, manual, telephone, etc.) </p>	<p>Baseline <ul style="list-style-type: none"> •Period •Value </p>	<p>Goals <ul style="list-style-type: none"> •Short term •Long term </p>

Source: R. Lloyd. *Quality Health Care: A Guide to Developing and Using Indicators*. Jones and Bartlett, 2004.