Ngā poutama oranga hinengaro-mahitahi

Mental health and addiction quality improvement programme: the quality improvement methodologies and tools we use

The mental health and addiction (MHA) quality improvement programme is coordinated by Te Tāhū Hauora Health Quality & Safety Commission and is a seven-year national programme to help people receive high-quality care and support.

The five priority areas identified by the MHA sector are included in the quality improvement programme during 2017–24. A focus on equity is woven throughout all activity. During the development of each topic area activity, project teams are supported to understand the equity issues for their local community or population.

The MHA quality improvement programme uses a range of recognised methodologies and tools working with teams to bring about improvement. These are described in the pages that follow and include:

- experience-based co-design
- quality improvement methodology
- aim statement
- driver diagram

- plan–do–study–act (PDSA) cycle
- family of measures
- run chart
- spread and sustainability.

Focus on **five** priority areas

1 **Aukatia te noho punanga: Noho haumanu, tū rangatira mō te tokomaha**
Zero seclusion: Safety and dignity for all

2 **Te tūhono i ngā manaakitanga, te whakapai ake i ngā whakawhitinga ratonga**
Connecting care: Improving service transitions

3 **Te ako mai i ngā pāmamaetanga me te wheako tāngata whaiora me te whānau**
Learning from adverse events and consumer, family and whānau experience

4 **Te whakanui ake i te hauora ā-tinana**
Maximising physical health

5 **Te whakapai ake i te whakahaere rongoā, i te tūtohu rongoā hoki**
Improving medication management and prescribing

Experience-based co-design

In experience-based co-design, a challenge or an opportunity is identified and a range of people with experience and expertise in delivering or receiving services are engaged. The experiences they have are shared and captured with specific attention to how they feel at each step and any ideas they may have for improvement.

Engage people
Tools for engaging people in the co-design process

Capture the experience
Tools to help people tell their stories

Understand the experience
Tools for understanding consumer and staff experience

Improve the experience
Tools to turn the experience into action

Measure the improvement
Tools for evaluating and measuring the improvement

(Adapted from: NHS Institute for Innovation and Improvement)

Co-design helps to:

- explore experiences, leading to a better understanding of the root cause of the problem – people feel more engaged with the solution if they understand the problem
- engage and build partnerships between staff and consumers from the start
- make better use of all the expertise available, especially from consumers and staff.

(Source: Dr Lynne Maher on co-design, quoted in Partners in Care web page, Te Tāhū Hauora)

More information:

Co-design Partners in Care

Dr Lynne Maher on co-design

Waitematā DHB: Health service co-design toolkit: Working with patients to improve services

NHS Institute for Innovation and Improvement: Experience-based design guide and tools (10MB PDF)

Australian Healthcare & Hospitals Association: Experience-based co-design toolkit

Quality improvement methodology

This is a model to help identify, carry out and evaluate changes to drive continuous improvement.

Quality improvement aims to make a difference to consumers by improving safety, effectiveness and experience of care by:

- using understanding of the complex health care environment
- applying a systematic approach using specific methods to improve quality
- designing, testing and implementing changes using real-time measurement for improvement
- achieving successful and sustained improvement.

(Source: Jones B, Vaux E, Olsson-Brown A. 2019. How to get started in quality improvement. *BMJ* 364: k5408. URL: www.bmj.com/content/364/bmj.k5437.)

More information:

Te Tāhū Hauora: Quality improvement toolkit

Health Quality Improvement Partnership: A guide to quality improvement methods

Aim statement

An aim statement is the answer to the first question in the Model for Improvement, 'What are we trying to accomplish?'. An organisation will not improve without a clear and firm intention to do so.

The aim should be time-specific and measurable; it should also define the specific population of consumers that will be affected. Agreeing on the aim is crucial; so is allocating the people and resources necessary to accomplish the aim.

(Source: Institute for Healthcare Improvement. (nd). *Science of Improvement: Setting Aims*. Boston, MA: Institute for Healthcare Improvement. URL: www.ihi.org/resources/Pages/HowtoImprove/ScienceofImprovementSettingAims.aspx.)

Model for Improvement

What are we trying to accomplish?

How will we know that a change is an improvement?

What change can we make that will result in improvement?

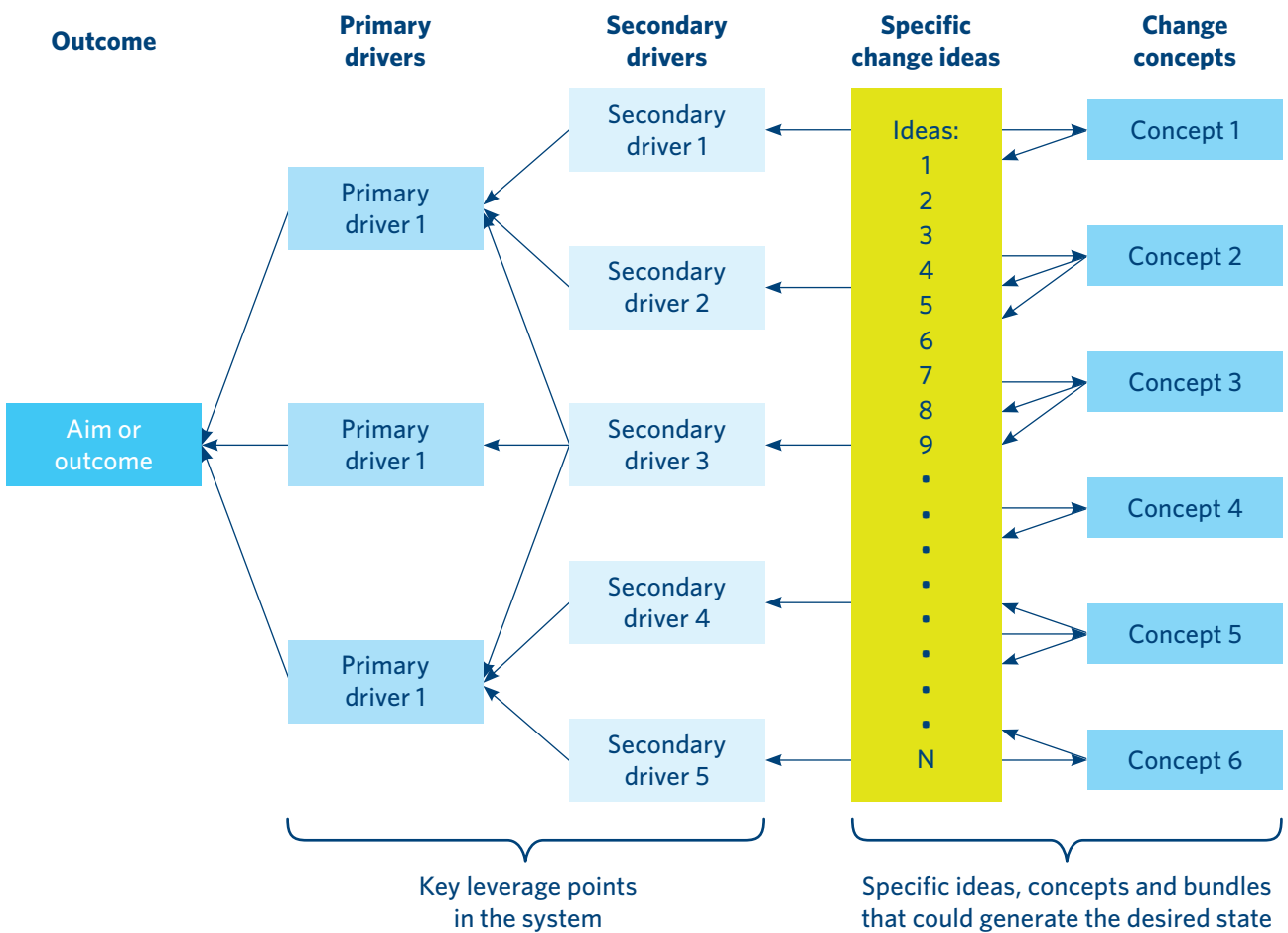**More information:**

Institute for Healthcare Improvement: Setting aims

Driver diagram

A driver diagram is a visual display of a team's theory of what 'drives', or contributes to, the achievement of a project aim.

This clear picture of a team's shared view is a useful tool for communicating to a range of stakeholders where a team is testing and working.

(Source: Driver diagram, Provost and Bennett 2015; full reference below)
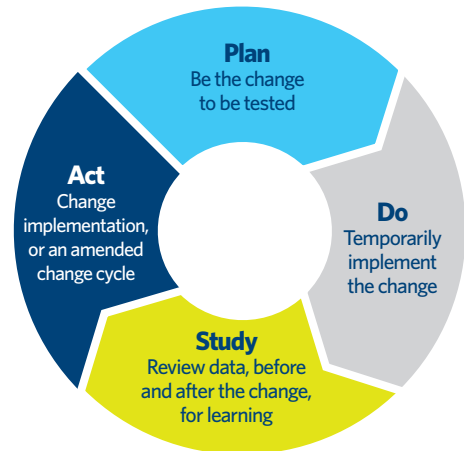

More information:
- Institute for Healthcare Improvement: Driver diagram
- Provost L, Bennett B. 2015. What's your theory? Driver diagram serves as tool for building and testing theories for improvement. *Quality Progress* 36–43. URL: www.ihi.org/resources/Pages/Publications/WhatsYourTheoryDriverDiagrams.aspx.

Plan–do–study–act cycle

The plan-do-study-act (PDSA) cycle is shorthand for testing a change – by planning it, trying it, observing the results, and acting on what is learned. This is the scientific method, used for action-oriented learning.

- **Plan:** Plan the test or observation, including a plan for collecting data.
- **Do:** Try out the test on a small scale.
- **Study:** Set aside time to analyse the data and study the results.
- **Act:** Refine the change, based on what was learned from the test.

(Source: Institute for Healthcare Improvement)

More information:

Institute for Healthcare Improvement: Plan–do–study–act cycles

Family of measures

A family of measures is a combination of performance measures/metrics which, when taken together, provide multiple perspectives on an organisation's achievement of its desired end state. It commonly includes outcome measures, process measures and balancing measures.

Outcome measures: These are the 'voice of the consumer' and capture system performance. Outcome measures answer the question: "What are the end results of our quality improvement work?"

Process measures: These are the 'voice of the workings of the system'. In other words, they capture the changes quality improvement efforts make to the inputs or steps that contribute to system outcomes. When working with process measures, it is important to focus on the processes that directly contribute to the desired outcome.
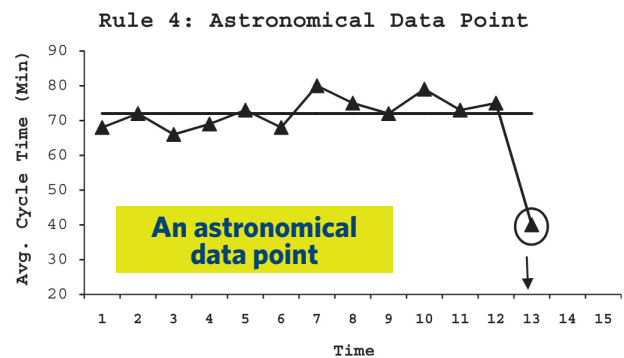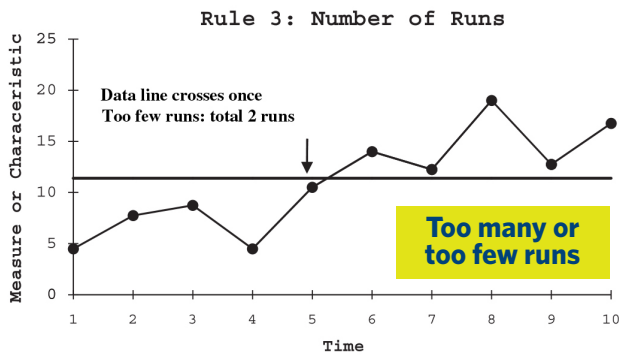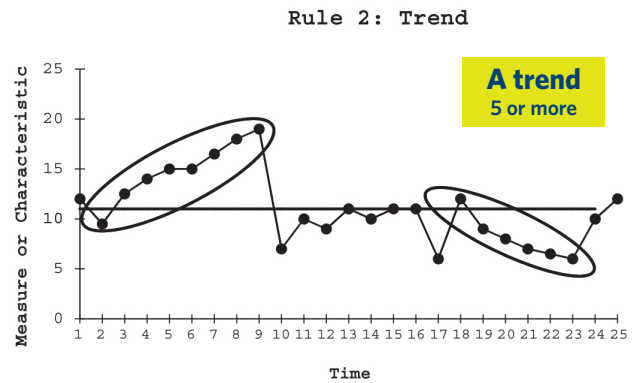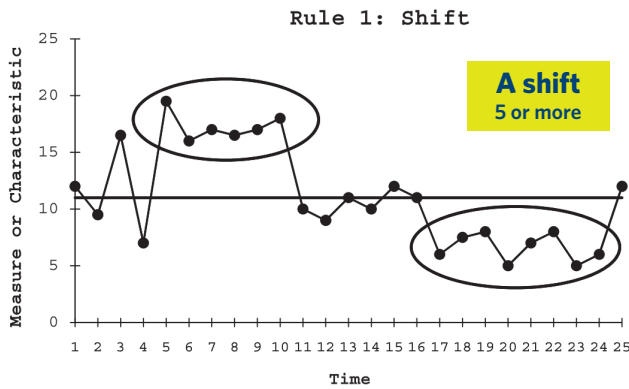
Balancing measures: These determine whether changes designed to improve one part of the system are causing new problems in other parts of the system. For example, does this new quality improvement change improve staff satisfaction but decrease consumer satisfaction?
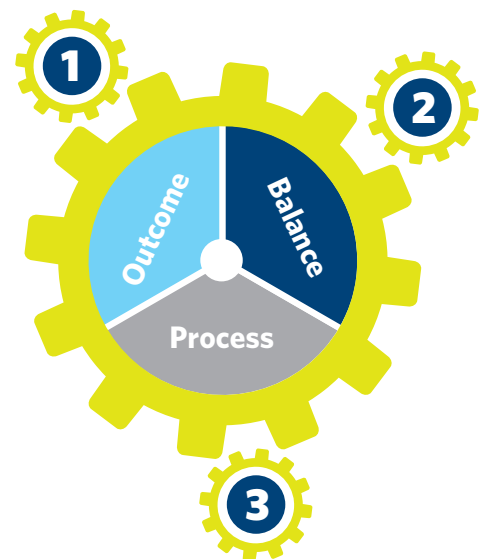
There are also plan-do-study-act (PDSA) measures. These are collected with each test of change (PDSA) that is carried out. These measures provide information about the effect of each change attempt.

Run chart

A run chart is a graph used to display data over time. Run charts are one tool to help distinguish between random and non-random variation.

Rule 1: Shift

A shift
5 or more

Rule 2: Trend

A trend
5 or more

Rule 3: Number of Runs

Data line crosses once
Too few runs: total 2 runs

Too many or
too few runs

Rule 4: Astronomical Data Point

An astronomical
data point

Source: Perla RJ, Provost LP, Murray SK. 2011. The run chart: a simple analytical tool for learning from variation in healthcare processes. *BMJ Qual Saf* 20: 46–51. DOI: 10.1136/bmjqs.2009.037895. Reproduced with permission.

Run charts can help you:

- understand baseline performance
- identify opportunities for improvement
- determine if a change is an improvement
- determine if you are sustaining the gains you have made
- look at any type of measure over time. For example, costs, length of stay, counts and percentages.

Run charts should contain:

- at least 10 data points
- a median (mandatory)
- annotation, which tells the story.

(Source: Institute for Healthcare Improvement)

More information:

- Institute for Healthcare Improvement: Family of measures video
- Institute for Healthcare Improvement: Run chart tool

Spread and sustainability

Achieving improvement in any area of an organisation is a significant accomplishment. However, a more important and often more perplexing challenge remains: how to spread the success to other areas or departments.

A key factor in closing the gap between the best known practice and common practice is the ability for organisations to rapidly spread innovations and new ideas to others.

In order to increase the odds of spread, consider the following:

- Identify the quality improvement tools or new concept you want to spread and develop a 'case' for why it should be used by others (include the results and stories).
- Gain senior management support of spreading the quality improvement tools or new concept.
- Identify who you will spread the change to first (think about the 'early adopters' – those most open to the change).
- Identify how the change will be communicated to others (eg, through a training session, personal communication or mentoring).
- Identify who will be in charge of spreading the quality improvement tool or new concept and what issues need to be addressed beforehand.
- Identify how you are going to measure your spread efforts.
- Identify and document lessons learned as you spread to the next groups.

(Source: Institute for Healthcare Improvement. 2020. Spreading Changes.
URL: www.ihi.org/Topics/Spread/Pages/default.aspx.)

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More information:

In addition to the pages below, the Institute for Healthcare Improvement website (www.ihi.org) has a range of resources to help organisations establish structures and practices that promote and support successful spread of changes throughout their systems.

- Institute for Healthcare Improvement: Framework for Spread: From Local Improvements to System-Wide Change
- Institute for Healthcare Improvement: Spreading Changes
- Center for Public Health Quality: Step-by-step guide to implement quality improvement (9.41 MB)

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