INTERNATIONAL WEBINAR SERIES

Webinar 42

Nursing KPIs

Overview

- Quality in health care
- Theory of change and improvement in healthcare
- Role of KPIs
- What should could we measure?
- Where to start?
- How can we measure?
- Patient reported outcomes and co-production

Quality 1.0

Standards

Establish thresholds

- Standards
- Evaluation
- Certification
- Guidelines

Lachman P, Batalden P and Vanhaecht K. A multidimensional quality model: an opportunity for patients, their kin, healthcare providers and professionals to coproduce health [version 3; peer review: 2 approved, 1 approved with reservations]. *F1000Research* 2021, **9**:1140 (https://doi.org/10.12688/f1000research.26368.3)

Nelson

BATALDEN

Andersson

Rispel

Quality 3.0

Co-Production of health

- Ownership of health
- Kinship
- Integration
- Value creating
- Architecture

Shewhart

Gilbreth

Deming

Juran

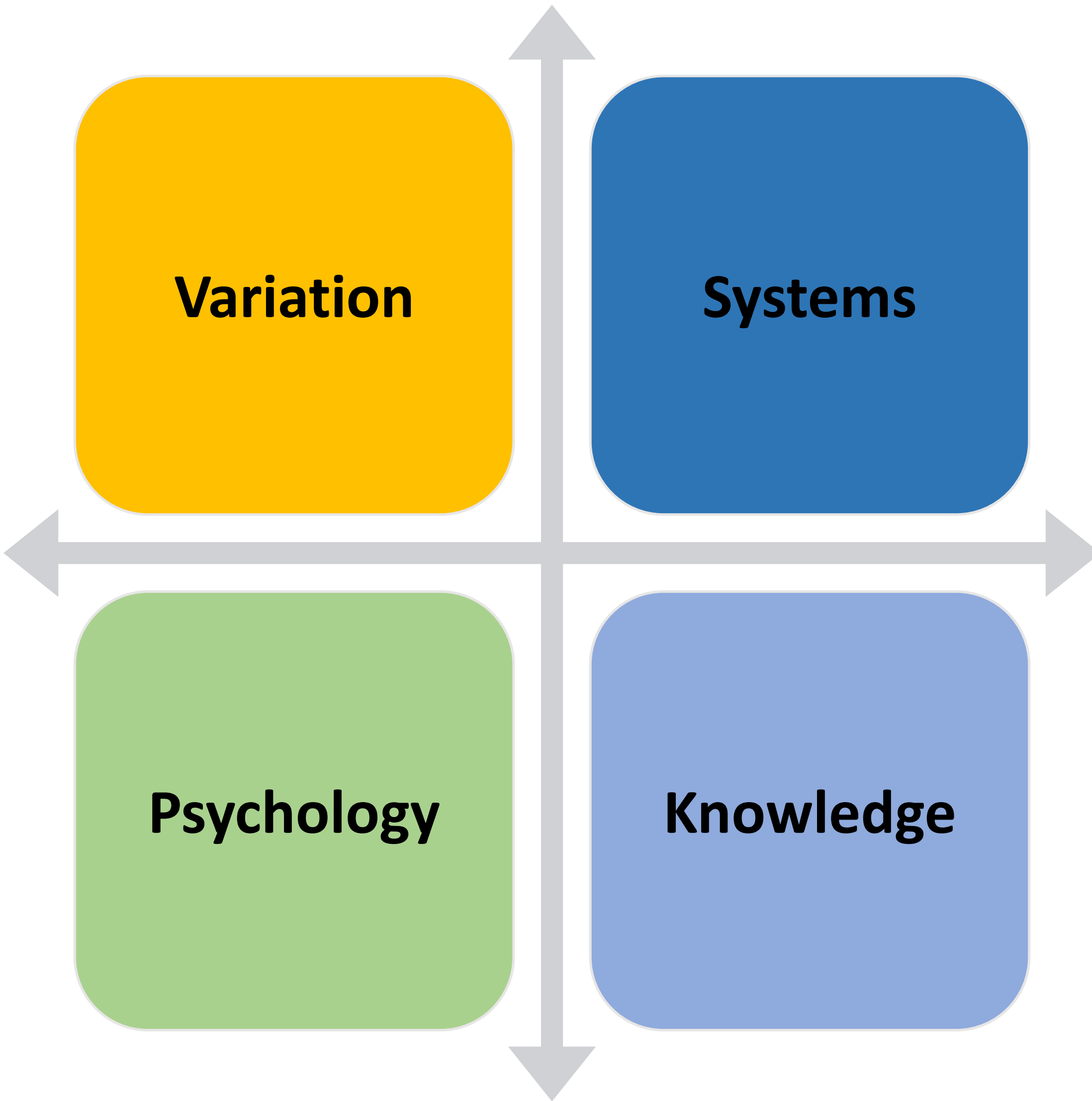
Berwick

Donabedian

Quality 2.0

Enterprise wide endeavours

- Systems
- Reliability
- Customer supplier
- Performance measurement

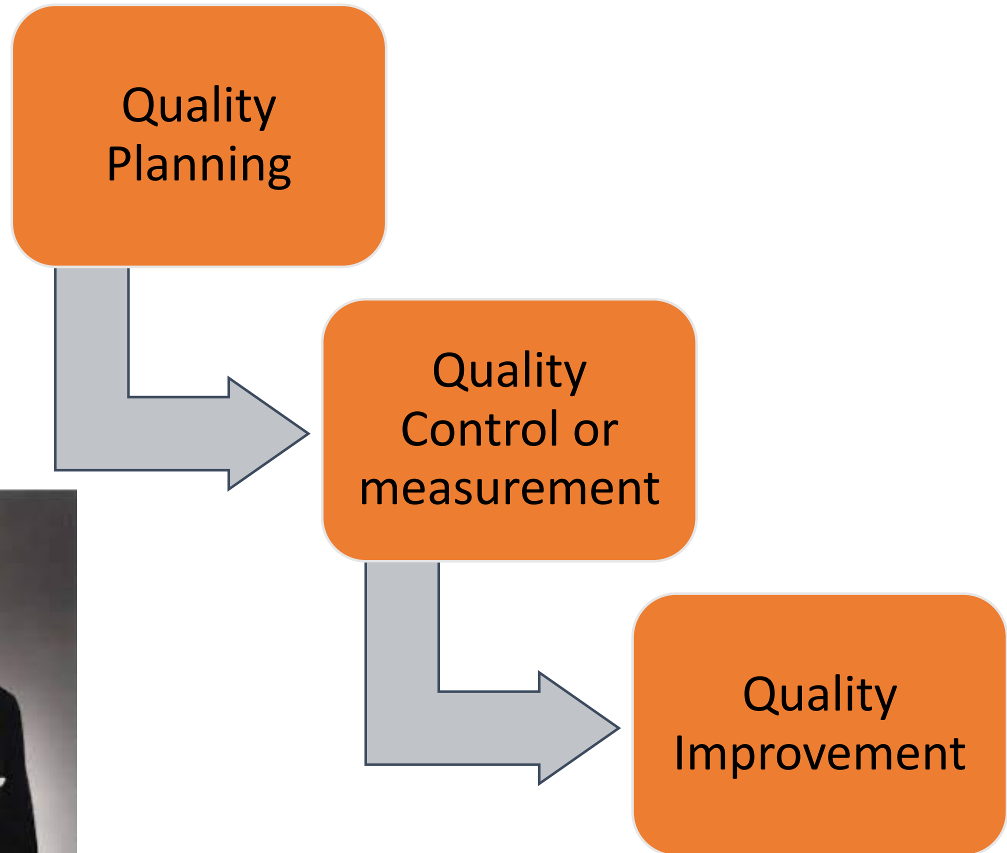


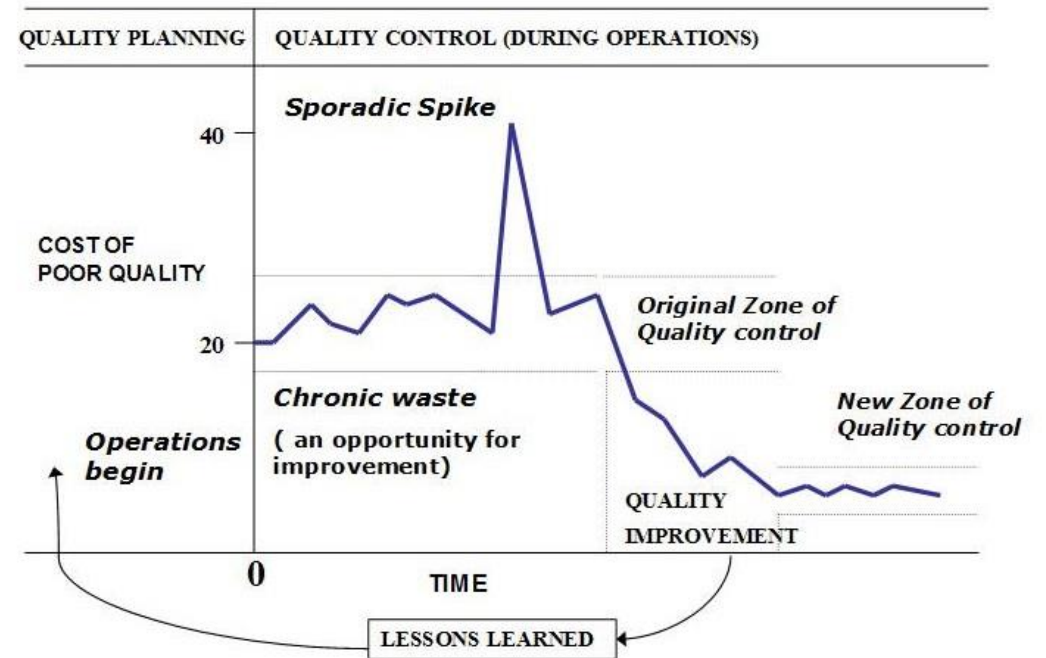
Understanding how to improve

Profound knowledge

Edwards Deming

Basic Quality management Joseph Juran





Why Time Is Important for Measurement

- Aggregate measures alone do not lead to predictions about future performance or insights to explain past variations

- Displaying data over time (using run charts or control charts) allows us to make informed predictions, and thus make changes to create different results

Dimensions of Quality (IOM 2001)

- Do we harm patients?
- Do we give the most evidence-based treatment every time?
- Are the services and outcomes equal for all?
- Do we provide good access to care?
- Are the services we provide good value? Is there waste? Do we take into account what matters to the individual?

Transforming Healthcare

Paul B Batalden and Frank Davidoff, 2007, What is ''quality improvement'' and how can it transform healthcare?

Definition KPI
Key Performance Indicators

Key Performance Indicators KPIs are specific and measurable elements of health and social care that can be used to assess quality of care.

KPIs are measures of performance, based on standards determined through evidence-based academic literature or through the consensus of experts when evidence is unavailable.

Health Information and Quality Authority. Guidance on Developing Key Performance Indicators and Minimum Data Sets to Monitor Healthcare Quality: February 2013 (Version 1.1). Dublin: Health Information and Quality Authority; 2013.

Why do we need KPI's ?

- Monitor the results of actions
- To detect any problems
- Use results as a tool to improve processes

The Utility of KPI's

- Performance monitoring -continuous process collecting data to determine if a service meets standards or Targets
- Safe, reliable, healthcare depends on access to, and the use of, information that is accurate, valid, reliable, timely, relevant, legible and complete.
- Health information has a key role to play in healthcare planning decisions
- Information can be lost, documentation is poor, and there is over-reliance on memory.
- Often great difficulty in bringing together information to make informed decisions.
- Variability in practice leads to variability in outcomes and cost of care.

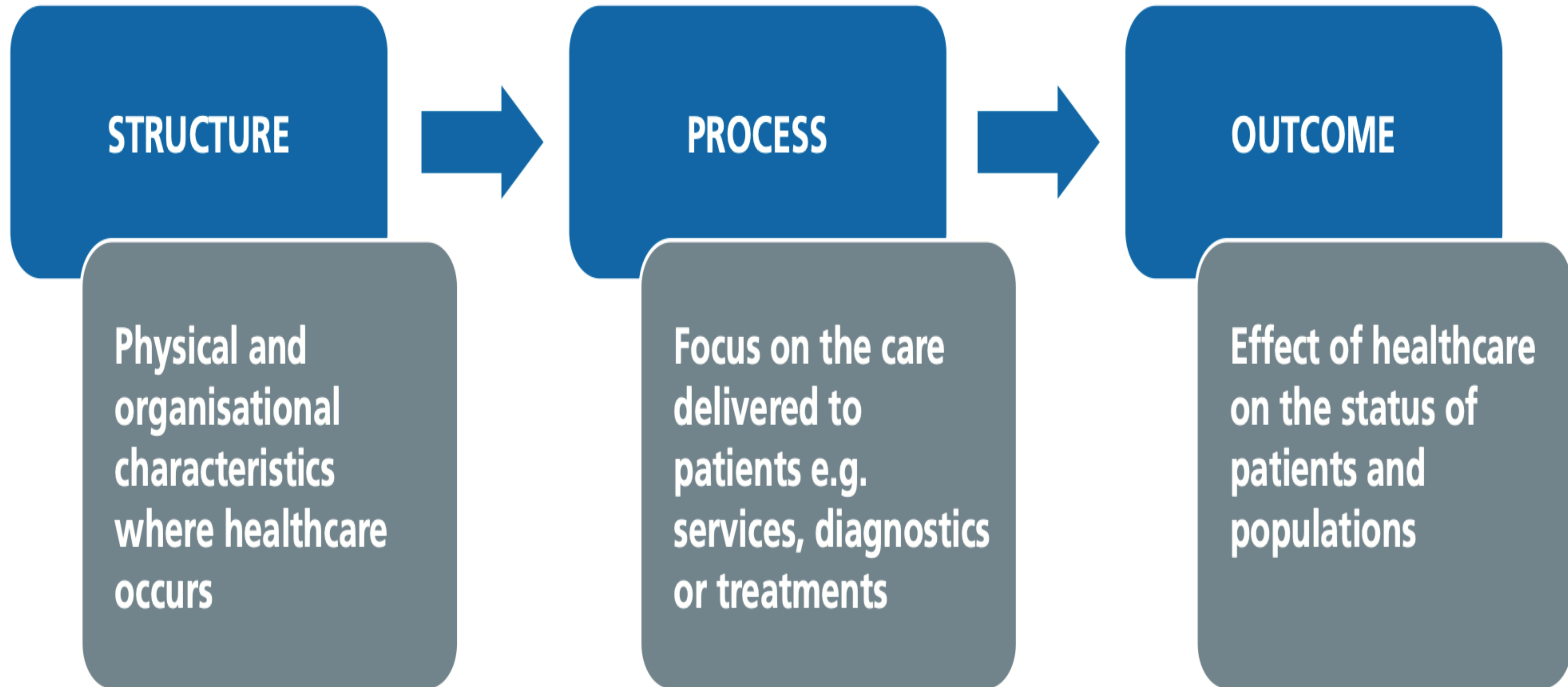
Are KPI valuable?

- KPIs on their own cannot improve quality,
- Act as flags or alerts to identify good practice,
- Provide comparability within and between similar services,
- Identify opportunities for improvement
- Flag where detailed investigation of standards is warranted.
- Three distinct drivers that can encourage organisations to improve the quality and safety - professionalism, regulation and market forces
- Assessing the quality and safety of care has become increasingly important because, unless we actually measure the quality and safety of care, we cannot determine if improvements are being made

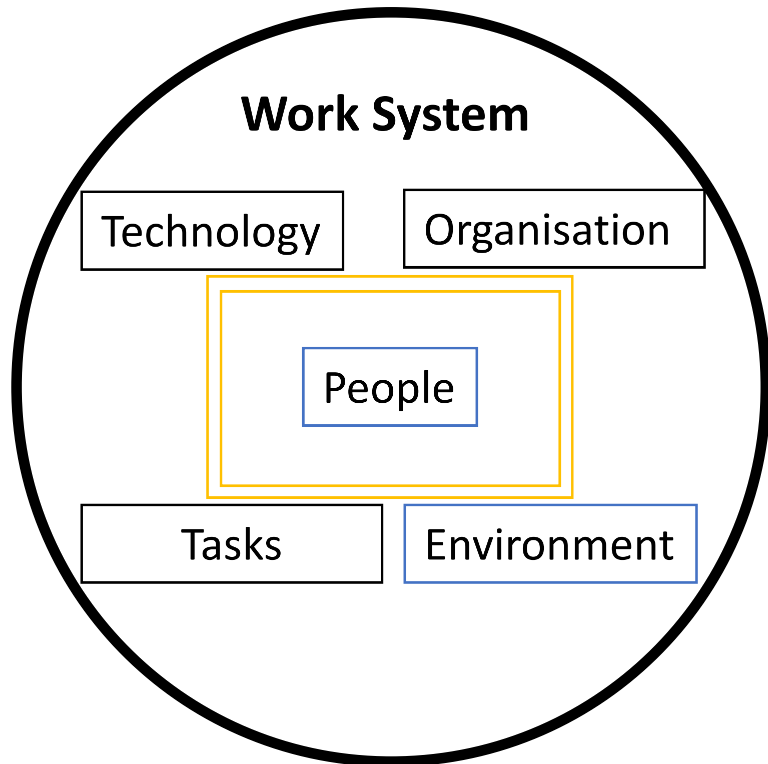
Measuring Results

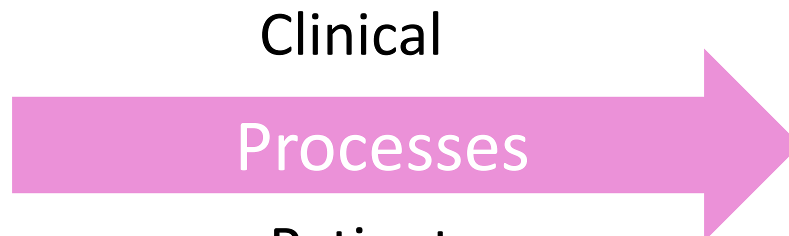
- Measurement MATTERS
- Generate light not heat!
- Measures for improvement
- Dash board of measures
- Run and control charts
- Info graphics

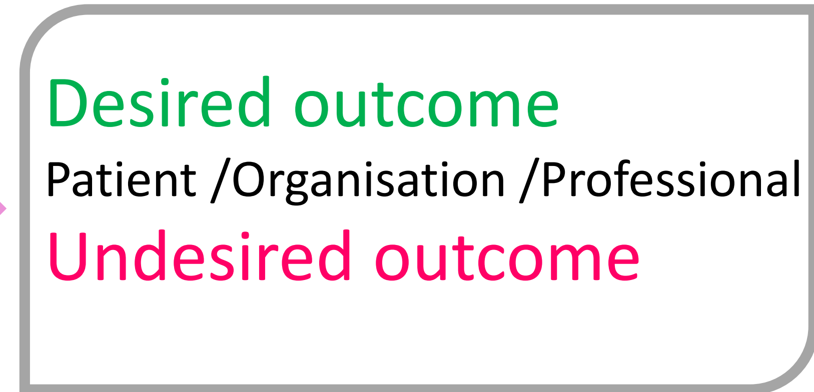
Donabedian 1966

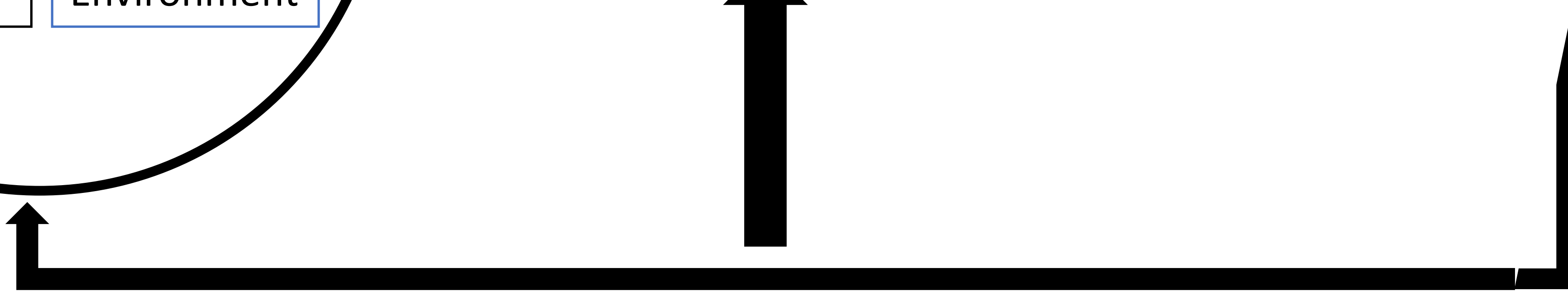


Systems Process Outcome









Measures

- **Outcome Measures**
  - Voice of the patient.
  - How is the system performing?
  - What is the result
- **Process Measures**
  - Voice of the workings of the system. Are the parts/steps in the system performing as planned?
- **Balancing Measures**
  - Looking at a system from different directions/dimensions. What happened to the system as we improved the outcome and process measures? (e.g. unanticipated consequences, other factors influencing outcome)

Types of Measures

OUTCOME MEASURES

Reflect the impact on a patient and demonstrate the end result of doing things. This measure should directly link to and "prove" if your overall aim has been achieved. Examples are mortality, hospital acquired infection or falls rates.

PROCESS MEASURES

Reflect the things that you do (processes) and how systems are operating. They show how well you are delivering a change that you want to make. Examples are % of hand-

BALANCING MEASURES

Measure whether unintended consequences have been introduced elsewhere in the system. E.g. A balancing measure is readmission rates when measuring length of stay as an outcome. Knowing potential risks as a consequence of change will help you determine what needs to be measured

Smart Aims

- Specific — How, what, why, where, when
- Measurable — Numerical goals
- Achievable — Actionable and achievable
- Relevant — Relevant to stakeholders and the organisation
- Timely — Time Bound

Where to start?

How is your system functioning?

What's bothering you?

Where is the service failing?

Do you know where the gaps are?

What are the causes of poor service?

What do the team want to improve?

What should /could we measure ?

- Rate of falls outcome
- Adverse events
- Pressure ulcer
- Successful CPR
- Medications process and outcome
- Readmission rate balancing and process
- Vacancy rates process
- Immunisation rate
- Training rate
- Bed occupancy measure average stay of patients
- Patient waiting time how long patients wait for access to treatment
- Patient satisfaction
- Patient mortality rate
- Cancelled missed appointments
- Complication rates outcome
- Handwashing process
- Bundle compliance surgical infection prevention
- Infection control prevention

10 Top Tips When Starting to Measure

- Measurement should be used to speed improvement up, not to slow things down.
- Seek usefulness, not perfection. Remember, the goal is improvement, not the development of a measurement system
- Key measures should clarify your team's objectives and make them more tangible
- Examine each objective in turn, making sure each has a specific measure where possible
- Link the measures for the improvement work with other initiatives in the health community, e.g. clinical and professional audit, clinical governance. It shows the contribution to corporate aims

10 Top Tips When Starting to Measure

- **Involve all your stakeholders**
- **Aim to integrate measurement into your daily routine, so it's not a chore but a key part of your work.**
- **Establish definitions of the measures at the beginning of your improvement work. The definitions have to be clear and easily understood, particularly when a lot of people are involved in the collection of the data. You need a measurement process that will be consistent and reliable**
- **Define the specific group of patients or users you are focussing on**
- **May need to divide the overall measure into more manageable parts**

Data reliability

- **Is the system reliable?**
- **Ask 5 people**
- **Involve the middle managers**
- **Get front line staff to verify and validate**
- **What is the service learning from the data**
- **Is the system capable of change?**
- **What is our prediction?**

A framework for the measurement and monitoring of safety

Source: Vincent C, Burnett S, Carthey J. *The measurement and monitoring of safety.* The Health Foundation, 2013.
www.health.org.uk/publications/the-measurement-and-monitoring-of-safety

The Health Foundation Inspiring Improvement

Actions

1. Use the analysis of incidents as a starting point to reveal the wider issues in the system
2. Place more emphasis on learning, feedback and action than simply on data collection
3. Integrate and tailor information to make it meaningful from the ward to the board

Actions

1. Don't wait for things to go wrong before trying to improve safety
2. Explore new opportunities to develop systematic ways to anticipate future risks
3. Use a variety of tools and techniques to build an understanding of the factors that give rise to safety issues

Action

1. Identify the different types of harm that can exist in your setting
2. Use a range of safety measures,
3. while understanding their strengths and limitations
4. Ensure the measures are valid, reliable and specific

Actions

1. Specify the level of reliability you would expect in areas of standardised practice
2. Use local and national audits and initiatives to monitor reliability
3. Understand what contributes to poor reliability

Actions

1. Select an appropriate mix of formal and informal safety monitoring mechanisms
2. Use this information to take timely action to avert safety issues
3. Reflect on whether current structures and committees enable timely action to be taken

Patient reported outcome measures PROMS

- A **patient-reported outcome** measure (PROM) is “any report of the status of a patient’s health condition that comes directly from the patient without interpretation of the patient’s response by a clinician or anyone else”
- PROs provide patients’ perspectives regarding treatment benefit and harm, directly measure treatment benefit and harm beyond survival, major morbid events and biomarkers, and are often the outcomes of most importance to patients and families.

Types of PROMS

- Quality of life – multi dimensional generic or condition specific
- Functional status -ability to perform specific activities
- Symptoms and symptom burden- specific to the symptom of interest
- Health behaviours -typically measure frequency

Patient Reported Experience Measures PREMS

- Concerns satisfaction with health care delivery, treatment recommendations
- Reflects actual experiences with health care services
- Fosters patient activation
- Is an essential component of patient-centered care
- Is valued by patients, families, and policy makers
- Relates to treatment adherence
- Relates to health behaviours and health outcomes
- Essential for co production

Presenting Change Stories using feedback

Patient family suggestions		**Changes**
I want something to do while I'm waiting		*Introduced games and activities in the waiting area*
I want to see the nurse and doctor at the same time		*Realigned the clinics together joint appointments*
I'd like a call (text) ahead of the clinic to know what is happening		*Tested and introduced texts and calls for some patients and families*
We see too many people in 1 visit		*Measured the patient journey step and removed unnecessary parts*
I'm not sure we have all the information we need		*Parents and children redesigned the information needed*
Sometimes I feel the clinic appoint was a waste of time		*Used feedback to make clinic visits more meaningful*
While we are waiting for an appointment(weeks) I'm worried		*Now have a check in system if I am worried*

Yael Gill 2020

References /Resources

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Questions