

Developing KPIs to Measure Healthcare Systems

Prepared by Dr. Abdulaziz Alsaedi

MHA611
Healthcare Systems

Lecture 06



Outlines:

- Overview of information in healthcare.
- Definitions and concepts of the key performance indicators (KPIs).
- Benefits of KPIs.
- Characteristics of KPIs.
- Forms of KPIs.
- Types of KPIs.
- Six Steps of developing KPIs.

Learning Objectives

- Understanding the importance of information in the healthcare industry.
- Understanding the role of KPIs in measuring healthcare performance.
- Understanding many concepts of KPIs.
- Understanding how KPIs are developed, measured, and reported.

Overview

- Health is information-intensive, generating huge volumes of data every day.
- It is estimated that up to 30% of the total health budget may be spent one way or another on handling information, collecting it, looking for it, and storing it.
- It is therefore imperative that information is managed in the most effective way possible in order to ensure a high-quality, safe service.
- 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.



Overview

- Performance measurement promotes accountability to all stakeholders including the public, service users, clinicians and the Government by facilitating informed decision-making and safe, high quality and reliable care through monitoring, analyzing and communicating the degree to which healthcare organizations meet key Goals.
- Accurate performance measurement is dependent on information that is of good quality and comparable and can be shared within the health sector.
- KPIs play an important role in the performance measurement process by helping to identify and appropriately measure levels of service performance.



Developing KPIs to Measure Healthcare Systems

What is a Key Performance Indicator?



Developing KPIs to Measure Healthcare Systems

What is a KPI?

- Key performance indicators, or KPIs, are the elements of your organization's plan that express the quantitative outcomes you seek and how you will measure success.
- Key Performance Indicator (KPI) is a quantifiable metric used to track progress towards a specific business objective.
- KPIs help organizations measure and evaluate their success in achieving strategic goals.
- While all KPIs are metrics, not all metrics are KPIs. KPIs are strategic metrics tied to specific goals, while metrics can measure any aspect of business performance without necessarily being critical to strategic objectives.



Developing KPIs to Measure Healthcare Systems

KPIs vs Metrics:

- Although they are both designed to measure performance, KPIs and metrics have different characteristics and are used by businesses in different ways.
- Metrics are measures used to track progress and evaluate success, while KPIs are metrics tied to specific goals during a certain period of time.
- KPIs are designed to align with business goals and targets, while metrics evaluate the performance of particular processes.
- Metrics are usually specific to a particular person or team and frequently align with industry standards or best practices.



Developing KPIs to Measure Healthcare Systems

KPIs vs Metrics:

	Metrics	Key Performance Indicators
Linkage to Objectives	No link with any objective	Directly linked with objectives
Purpose	Rarely provide any significant notification	Feedback on reaching targets
Number	Unlimited	limited

Developing KPIs to Measure Healthcare Systems

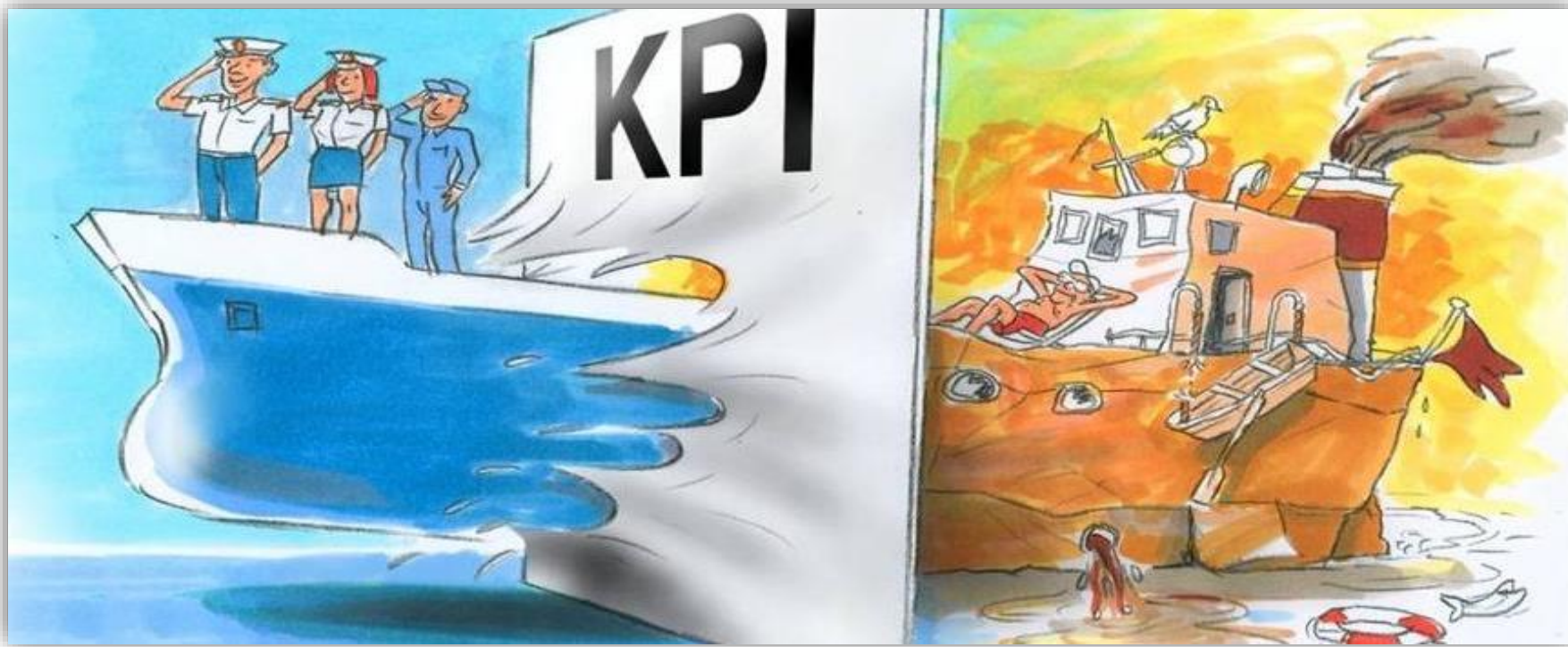
Benefits of KPIs:

1. Realize the direction and common goal.
2. Optimal use of time, energy and resources.
3. Make the right strategic decisions at all levels proactively and not reactively.
4. Reduce variation in the system.
5. Enhance reputation and trust among stakeholders.
6. Improvement.
7. Planning and forecasting.
8. Competitiveness.
9. Rewards.
10. Compliance with regulations and standards.



Developing KPIs to Measure Healthcare Systems

Benefits of KPIs



Developing KPIs to Measure Healthcare Systems

Main Functions of KPIs

Developing KPIs to Measure Healthcare Systems

Main Functions of KPIs:

1. Monitoring



- KPIs (Key Performance Indicators) are widely used for monitoring organizational performance.
- They serve as quantifiable metrics that help businesses track progress toward specific goals and objectives.
- Monitoring is done through data collection, data visualization, and regular review.

Developing KPIs to Measure Healthcare Systems

Main Functions of KPIs:

2. Improvement



- KPIs (Key Performance Indicators) are widely used for improvement in organizations.
- They serve as essential tools for measuring, monitoring, and driving improvements in various aspects of business operations.
- Improvement is done by identifying areas for improvement, setting improvement targets, and driving continuous improvement.

Developing KPIs to Measure Healthcare Systems

Main Functions of KPIs:

3. Communication

Communicating or disseminating KPIs can be done through the following:

- Top-down communication.
- Bottom-up communication.
- Horizontal communication.
- Cross-departmental sharing.



Developing KPIs to Measure Healthcare Systems

Characteristics of KPIs:



Measurable

Quantitative

Directly linked to the goals

Developing KPIs to Measure Healthcare Systems

Characteristics of KPIs:

Measurable:

Measurable KPIs are quantifiable metrics that can be objectively tracked and evaluated.

Quantitative:

KPIs should be represented quantitatively not qualitatively.

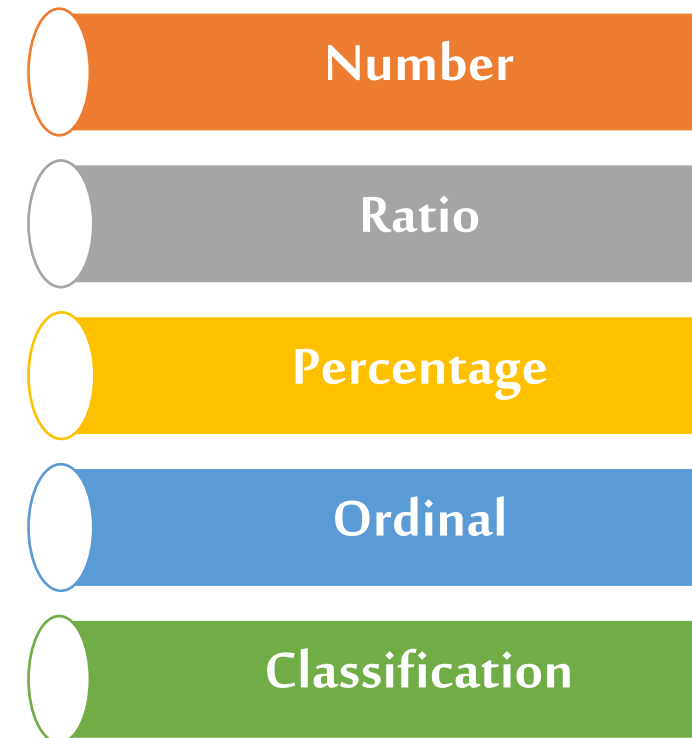
Directly linked to the goals:

KPIs should be developed to measure the progress toward achieving certain goals.

Developing KPIs to Measure Healthcare Systems

Forms of KPIs:

- KPIs come in various forms, including numbers, ratios, percentages, ordinal values, or even classification.
- Therefore, choosing the appropriate format is crucial to track the progress towards strategic and operational objectives.
- An objective can be measured with more than one form, if necessary.



Developing KPIs to Measure Healthcare Systems

Types of KPIs:

- KPIs can be categorized into various types based on their characteristics and applications.
- Each category has been defined from a different perspective/view.
- Each category has its own characteristics, time frame, and level of business that is likely to use it.
- Different KPIs may also be used by different departments within the same business.



Developing KPIs to Measure Healthcare Systems

Types of KPIs:

Classification

1

Strategic

Operational

Projects

Employees

Risks

Developing KPIs to Measure Healthcare Systems

Types of KPIs:

Exercise:

Give an example for each of the previously mentioned classifications.

Developing KPIs to Measure Healthcare Systems

Types of KPIs:

Classification

2

Key Results Indicators

Results Indicators

Performance Indicators

Key Performance Indicators

Developing KPIs to Measure Healthcare Systems

Types of KPIs:

Exercise:

Give an example for each of the previously mentioned classifications.

Developing KPIs to Measure Healthcare Systems

Types of KPIs:

Classification

3

Lagging

Leading

Developing KPIs to Measure Healthcare Systems

Types of KPIs:

Leading vs Lagging Indicators

A Leading indicator (or leading KPI) is a measure that signals future changes. It is predictive in nature and offers a glimpse of the company's future performance. For example, the number of new leads obtained by a sales team is a leading indicator, as it predicts future sales.

A Lagging indicator (or lagging KPI), on the other hand, is a measure of past performance. It reflects the results obtained by the company following the actions taken. For example, last quarter's sales are a lagging indicator, because they measure the results of efforts made in the past.

Developing KPIs to Measure Healthcare Systems

Types of KPIs:

Exercise:

Give an example for each of the previously mentioned classifications.

Developing KPIs to Measure Healthcare Systems

Types of KPIs:

Classification

4

Constant

Changeable

Developing KPIs to Measure Healthcare Systems

Types of KPIs:

Exercise:

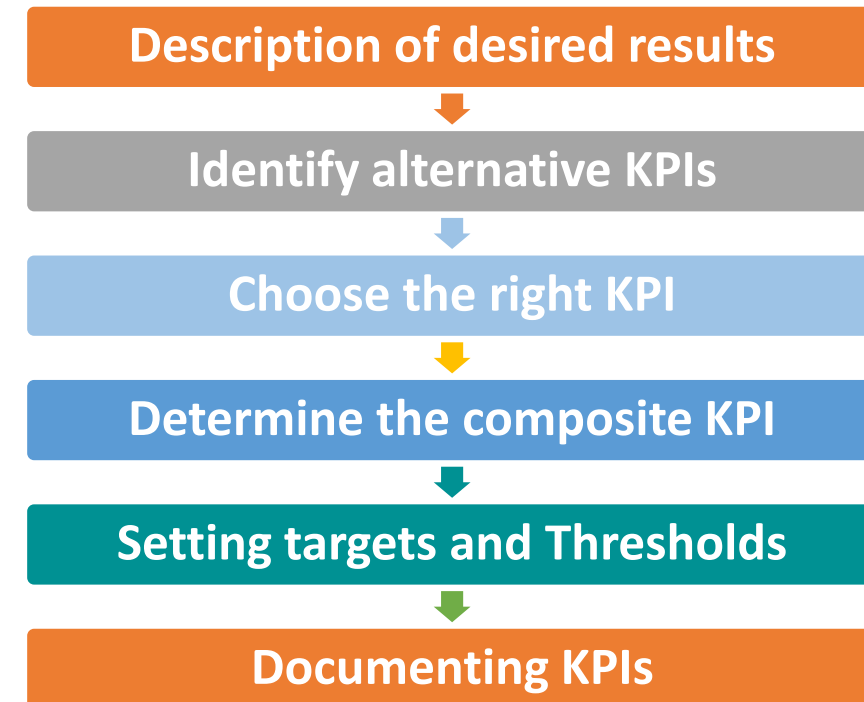
Give an example for each of the previously mentioned classifications

Developing KPIs to Measure Healthcare Systems

Developing KPIs

Developing KPIs to Measure Healthcare Systems

KPIs development steps



Developing KPIs to Measure Healthcare Systems

Step One: Description of desired results

- Clearly identify the final results you aim to achieve.
- Results are the determinant of success.
- KPI should be directly linked to the desired results.
- At least one KPI for each desired result.
- At least one result for each objective.
- More results mean more KPIs.



Developing KPIs to Measure Healthcare Systems

Step Two: Identify alternative KPIs

- Having more KPIs for the same objective is helpful.
- There are many tools to identify alternative KPIs.
- Using tools is essential to come up with alternative KPIs.
- Selecting KPIs out of these alternatives is based on certain criteria.
- Using more tools means identifying more alternative KPIs.



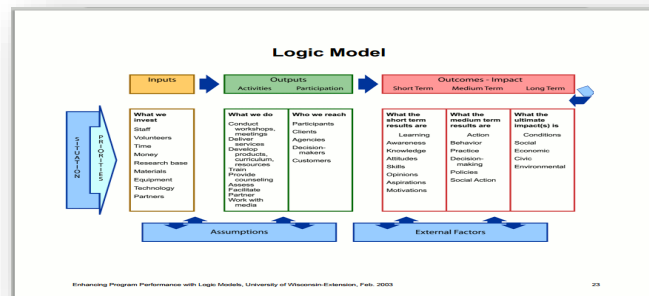
Chapter

06

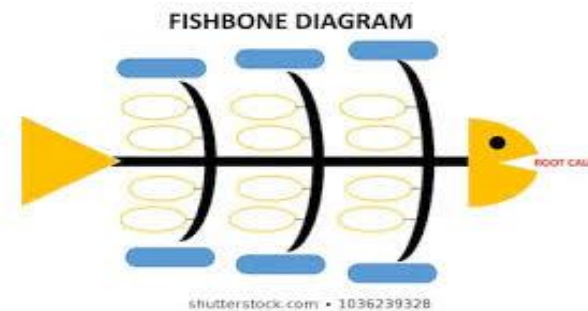
Developing KPIs to Measure Healthcare Systems

Step Two: Identify alternative KPIs

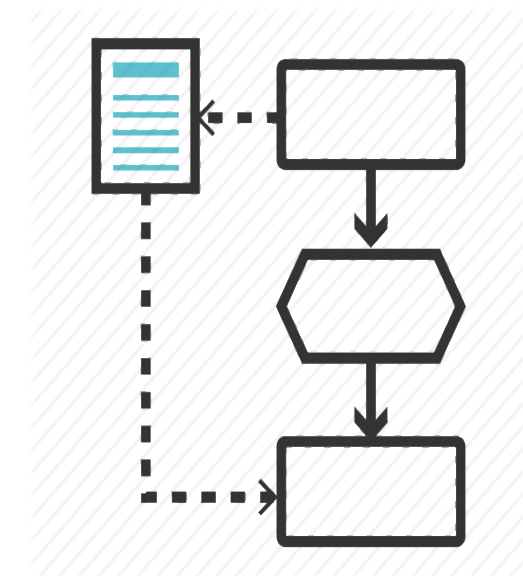
Logic Model



Fishbone Diagram



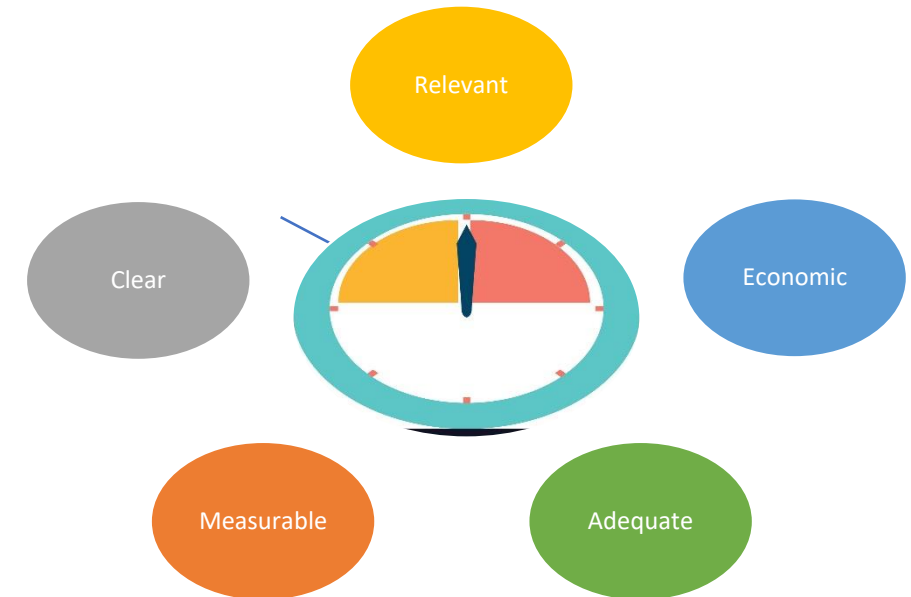
Flow Process Analysis



Developing KPIs to Measure Healthcare Systems

Step Three: Choose the right KPI:

- Alternative KPIs need to be compared to select the most suitable KPIs.
- There are sets of criteria to fairly assess alternative KPIs.
- The aim of this step is to minimize the number of KPIs as much as possible.
- Fewer KPIs are best.



Developing KPIs to Measure Healthcare Systems

Step Four: Determine the composite KPI

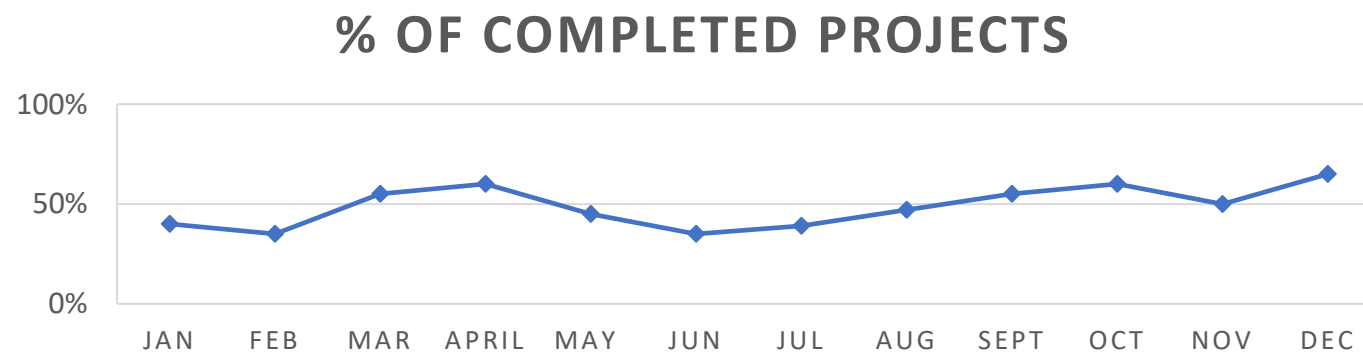
- A composite indicator combines two or more data sources into a single measure.
- A composite indicator is often used for measuring results that are multidimensional in nature.



Developing KPIs to Measure Healthcare Systems

Step Five: Setting Targets and Thresholds

- Targets are the desired level of performance for a specific reporting period.
- Thresholds are the upper and lower limits of desired performance around a target value.



Developing KPIs to Measure Healthcare Systems

Step Five: Setting Targets and Thresholds

- There are many ways to set targets, such as:

Requirements

Benchmarking

Baseline

- Targets should be reviewed periodically against actual performance and adjusted when needed.

Developing KPIs to Measure Healthcare Systems

Step Six: Documenting KPIs

- Documenting KPIs helps clearly define what success looks like for the organization.
- It ensures everyone understands the specific objectives and how performance will be measured.
- Documented KPIs provide concrete metrics that can be consistently measured over time.
- This allows organizations to track progress and identify trends.
- It enables comparison against targets and benchmarks.
- It helps hold individuals and teams accountable for their performance.
- Proper documentation ensures KPIs are measured consistently over time.
- It defines how data should be collected and analyzed.

Developing KPIs to Measure Healthcare Systems

Step Six: Documenting KPIs

KPI Profile should include:

- Related objective and its Owner.
- KPI title and its description.
- KPI owner.
- Where KPI data will be collected.
- When KPI data will be collected.
- How KPI data will be analyzed and reported.
- To whom KPI analyzed data will be reported.



Summary

- KPIs are measurable, quantitative, and linked to goals.
- KPIs can be numbers, ratios, percentages, ordinal, and classification.
- KPIs can be classified into Leading and Lagging indicators.
- KPIs are used for monitoring, improvement, and communication.
- There are six steps for developing KPIs.
- There are many tools to develop alternative KPIs.
- Selecting the right KPIs should be based on certain criteria.
- KPIs should be documented.



Thank You

References:

- Wang, H. (2016). Comparative Health Systems: A Global Perspective. In *International Encyclopedia of Public Health*. Jones & Bartlett Learning. <https://doi.org/10.1016/B978-0-12-803678-5.00085-0>
- Rivki, M., Bachtiar, A. M., Informatika, T., Teknik, F., & Indonesia, U. K. (2013). *healthcare Systems Around The World* (Issue 112).
- Will, K. K., Mutyala, J., & Essary, A. C. (2023). Health Systems Science. *Jaapa*, 36(6), 45–46.
<https://doi.org/10.1097/01.jaa.0000931464.13332.f1>
- <https://www.mdclarity.com/glossary/social-insurance-bismarck-model>
- <https://www.ahaap.org/out-of-pocket-model>