

ORIGINAL ARTICLE

KPI: A Performance Improvement Tool

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ABSTRACT

KPI as a reliable tool for evaluating the improvement in performance in an organisation.

It provides valuable data to assess the growth of the organisation. KPI can be made & maintained at the organisation, department or individual level. KPI & its components to be well defined & targets or benchmarks are to be changed from time to time. Various KPI's to be followed across clinical settings are Nurse-patient ratio for ICUs and WARDS, Incidence of hospital-associated pressure ulcers after admission, Re-intubation rate in ICU, Return to ICU within 48 hours etc. KPI must follow the SMART principle to be specific, measurable, attainable, realistic & on time. Organisations must make a process flow for data collection & evaluation of data. Specific people should be designated towards collecting data & its analysis. Data of the KPI to be discussed in the top levels meetings & positive discussion should happen on the data. Result of the meeting to be disseminated among all regarding policy revision or regarding new policy across the organisation. Hence through KPI one can bring overall development & progress in various areas.

KEYWORDS

• KPI • Components • Performance Evaluation Tool

INTRODUCTION

KPI stands for Key Performance Indicators.

KPIs are the units used to measure progress toward a particular goal. KPI enables an organisation to avoid ambiguity and provide reliable data to know whether a company is

doing well or not. KPI provides the data which will enable in looking for solutions to tackle the areas of concern.

A well-defined KPI can help to meet desired objectives of the organisation & will lead to long-term benefits to the organisation.^{1,2}

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Meaning:

Key performance indicators help to evaluate an organisation's performance against its strategic objectives. A KPI is a measurable value that demonstrates how effectively an organisation, department, or individual is achieving its specific laid-down success objectives.

KPIs help organisations understand what's working & what is not working for the organisation's growth, identify areas for improvement, and ultimately drive better business outcomes.

Organisations can use KPIs at multiple stages; like you can use KPIs either organisation-wide, team-specific, or even individual-based, depending on what you want to track.

A good KPI will give reliable data on whether you're on track to achieve your organisational strategic objectives or not.^{1,2}

COMPONENTS OF KPI DATA COLLECTION FORMAT**Title of KPI:**

A KPI must have a well-defined title; the title must be short & focus on the main variable.

Operational definition of the title:

The title must be defined on the basis of the company's objective, functionary & desired

result.

Formula of calculation

There must be a formula or a way to find the relevance of the data.

Target:

Specify the standard that the title must meet.

Evidence/Literature for the title:

Mention the source of literature & reference. E.g. Standards taken from accreditation bodies like NABH, JCI, etc.

Process of Data Collection:

The entire process of data collection from the sample to be mentioned clearly so that everyone involved in data collection follows the uniform process.

SOURCE OF DATA**Frequency of Data Collection:**

Mention the frequency of data collection, like weekly, monthly, etc.

Authorised person for data collection:

Mention the designated person responsible for data collection from the sample.

Data analysis process**Reporting to:**

Mention the reporting authority personnel of the authorised person for the data & its analysis.³

An Example of KPI

KPI on Pressure Injuries	Incidence of Pressure Injuries after Admission
Operational definition of the title	A pressure injury is localised damage to the skin and underlying soft tissue, usually over a bony prominence or related to a medical or other device.
Formula of calculation	$\frac{\text{Number of patients who developed new pressure injuries}}{\text{In-patient days in hospital}} \times 1000$
Target	Target - 2
Evidence/Literature for the Title	Standards from JCI & NABH
Process of Data Collection	Retrospective check from the Braden scale chart On daily observation of skin
Source of Data	Medical records Inspection
Frequency of Data Collection	Weekly/Monthly
Authorised person for data collection	Team Leader, Head Nurse, Nurse Educator
Reporting to	Nursing Administration/Hospital Administration/Quality Team of the organisation

KPI must follow the SMART goal framework:

An effective KPI must be made based upon the SMART acronym, whereas

S - Specific

M - Measurable

A - Attainable

R - Realistic

T - Time bound

- **Specific:** KPI must have clearly defined goals so as to avoid any confusion or unclear stuff.
- **Measurable:** KPI should aid in tracking the progress and evaluate whether the goal has been achieved or not.
- **Attainable/Achievable:** The KPI should be realistic and attainable within the given resources and decided timeframe.
- **Realistic/Relevant:** The KPI must be made in order to align with overall objectives.
- **Time-bound:** The KPI should be done in a specific deadline or timeframe for achieving the goal.^{4,5}

Importance of KPI:

- They act like a report card, showcasing how well an organisation, team or individual is doing in key areas.
- It helps everyone in the organisation to understand where the organisation stands today in terms of the company's objectives.
- Remedial measures can be taken to correct the cause that are not going well as per the findings of the KPI data.⁶

Various KPIs to be followed & maintained in clinical areas are:

Various KPIs that can be followed in clinical settings are:

Percentage of transfusion reaction

KPI can be done to identify the incidences of blood transfusion reactions that happened during the decided period of duration.

Nurse-patient ratio for ICUs and WARDS

A KPI can be done regarding a nurse's handover of patients in his shift during the decided period of duration to know whether nurses are being overburdened with patients

compared to the decided ratio or underutilised.

Incidence of hospital-associated pressure ulcers after admission:

KPI can be done to identify the incidences of pressure ulcers noticed in patients during the decided period of duration.

Re-intubation rate in ICU

KPI can be done to identify the incidences of patient re-intubation after 24-48 hours of extubation happened during the decided period of duration.

This KPI will provide us the valuable data of the unsuccessful extubation.

Return to ICU within 48 hours

KPI can be done to identify the incidences of return to ICU after transfer out from ICU to ward during the decided period of duration.

Again, this data tells us that proper assessment was not done prior to transfer out from ICU.

Percentage of adverse contrast reaction

KPI can be done to identify the incidences of adverse reactions that occurred to the patient while doing any contrast study during the decided period of duration.

Percentage of unplanned return to OT

KPI can be done to identify the incidences of return to the operation theatre within 24 to 48 hours post-surgery during the decided period of duration.

This data gives us the valuable data that prior surgery was not done properly & hence, again, we need to bring the patient to the OT.

Re-exploration rate

KPI can be done to identify the incidences of re-exploration of the surgical part done during the decided period of duration.

Return to the emergency department within 72 hours with similar presenting complaints.

KPI can be done to identify incidences of patients discharged from the casualty with similar complaints and again coming to casualty with similar complaints within 72 hours during the decided period of duration.

This provides data that the patient was not assessed properly before discharging from the casualty.

PROCESS OF KPI DATA COLLECTION

Data Collection Format

Formulate the format for collecting the data for the KPI with its components properly defined.

KPI Folder

A soft copy of the KPI file based on KPI components is to be formed where data collected through the data collection format is to be entered.

KPI Folder to be a shared folder so that there can be direct communication of inputs or suggestions from all the concerned people involved in it.

Designate Data Collection Personnel

Decide on a designated person for data collection. Person to be decided should be as per the area or work of the KPI. E.g., needle stick injury data to be collected & maintained by the infection control nurse.

Data Collection

Data collection is to be done on a real-time basis & entry in the KPI folder is to be done on the same day of collection.⁸

Evaluation of KPI

Evaluation of the KPI to be done by the concerned stakeholder with the higher authority.

The stakeholder will do the computation of the data, and with the decided formula, calculate whether the target was achieved or not.

This final data will be shared with the nursing administration/hospital administration/quality team of the organisation.

The team must meet for discussion of the KPI-related data.

Concerned Team: based on findings of the KPI, a decision to be taken on either whether there is a need for policy making or revising of the existing policy or whether staff requires further training or staff to be counselled for underperforming as per the standards & policies. The results to be disseminate all throughout the organization if there is new policy or policy renewed.^{5,6}

Pros of KPIs

- It aids the organisation to make improvement plans by providing data specifying the company's undergrowth or underperformance.
- KPI provides data on how effectively protocol & policies are being followed by the employees and thus providing valuable information on employees doing well or underperforming.
- It acts as a motivator tool - The work of an employee can also be evaluated by KPI & thus acts like a motivation tool for them to work with intent to work more progressively towards their work.

E.g., a staff member who has never gotten a pressure sore or never caused a pressure sore in their patients can be rewarded.⁷

Cons of KPIs

- If the goal/target is not specified or isn't set right, then it might happen that the entire process of observation or evaluation might go wrong, giving wrong results.
- It can lead to difficulty in meeting the objectives, which might unnecessarily cause panic situations & chances for underperforming among team members due to fear of not achieving the goals.
- Sometimes it might happen that the top management is only focused on KPI numbers/data & not looking after improving the business.
- Target must be changed from time to time; otherwise, results will not show the actual scenario.⁷

E.g., the target to documentation error compliance was kept at 70%. And hence, organization will do lots of training to improve the documentation. So after vigorous training, the target must be revised to 80 or 90% documentation error compliance as staff are being made aware & training is going on for preventing documentation errors.

DISCUSSION

- KPI to be taken as a performance improvement model in the hospital & policies to be formed for it.

- The teaching programme to be focused on KPI among directors, doctors and nurses regarding KPI.
- A concerned team to form in the hospital who would be responsible for making KPI, doing analysis & making sure that the process of KPI is going well as planned E.g., forming a quality team in a hospital who will look after the process of quality improvement in the organisation & also be given responsibility for KPIs.

CONCLUSION

- KPI is a very useful tool in clinical settings, as many times many mishap events go unnoticed. Such instances need to be addressed, as in no point in time the organisation will realise that the company's objectives are not being met because of such events.
- KPIs to be formed for all performance improvement areas, underperforming events, utilisation, etc.
- Real-time data is to be collected & analysis is to be done so that areas of improvement can be determined and

planning & implementation can be done on those areas which are not doing well.

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