

QUALITY INDICATORS IN THE HEALTHCARE

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Introduce

- Quality and the tools of the quality management are attracting more attention.
- The healthcare systems can not afford to ignore the quality of its services.
- One thing is for sure: quality development in healthcare is vital importance.



The meaning of quality in the health care

Quality is the level at which

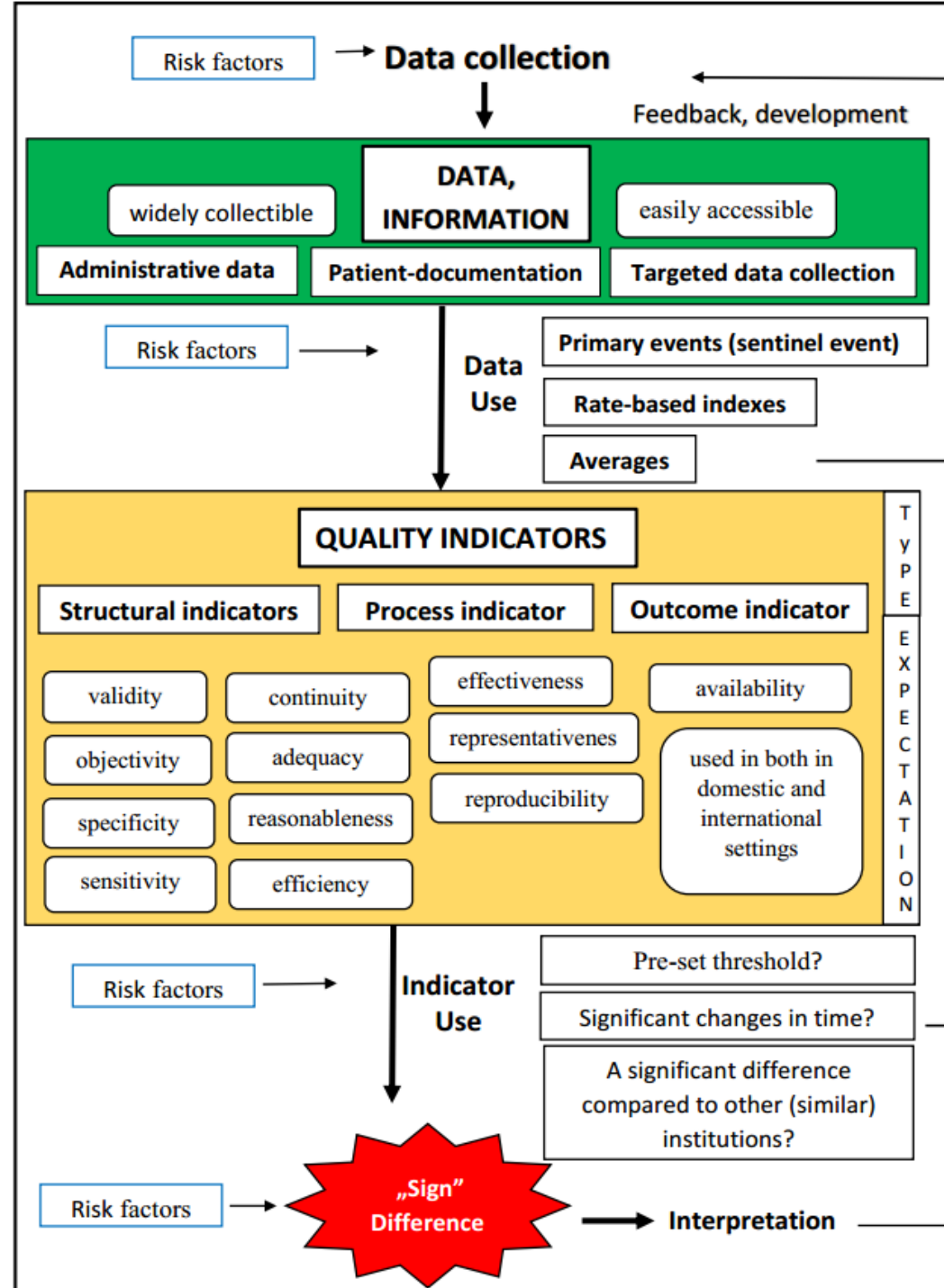
- the expressed and unexpressed needs of all participants of health care can be quantified and demonstrated,
- has as its primary objective the maximum preservation, restoration and conservation of health,
- taking into account all scientific knowledge, the available resources, and the expected gains and risks as well.

Indicators in the healthcare

- Indicators are widely used measures in healthcare, but only a small percentage of them is applied (in healthcare) for the measurement and evaluation of quality.
- Quality Indicator
 - is an index that is designed to show in a numerical representation events of the past and present in order to measure and evaluate quality.
 - job is to indicate the differences, to shed light on areas where deeper study or analysis is needed,
 - is not able to show us the solution to a problem or the course of necessary development,

Use of the quality indicators

- first step is always gathering data (availability of data is essential)
- use of collected data: primary events (sentinel), rate-based indexes, averages
- 3 main types of quality indicators (distinct purposes)
- use of the quality indicator
- „sign” the difference
- the indicated area requires more in-depth study and analysis,



Quality indicator types in the healthcare

- Quality indicator types (the groupings follow Donabedian's concept):
 - **structural indicators** (for ex. employees' skills and abilities, how well the facilities are equipped)
 - **process indicators** (for ex. does care-giving happen in the right way, do patients receive the necessary medication)
 - **outcome indicators** (for ex. a patient that undergone a serious leg operation and rehabilitation can walk again or not)

Musculoskeletal diseases

It is advantageous to focus on a specific area.
→ In that situation they can be shown exactly where are the problems.

Most common:

- arthrosis,
- arthritis,
- osteoporosis,
- backache,
- neck and back spine-deformations,
- limb-trauma



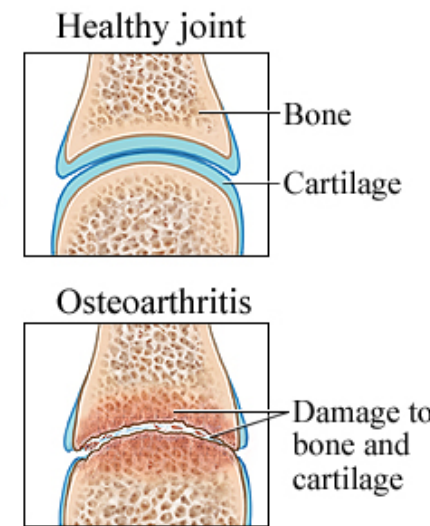
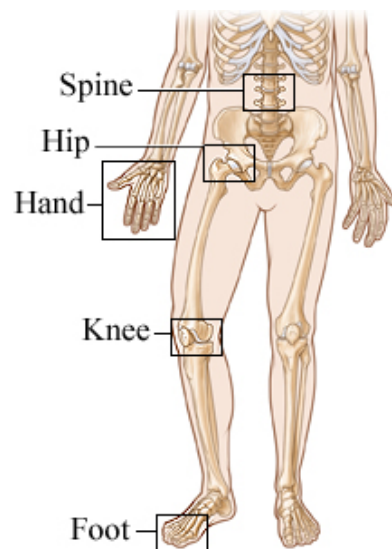
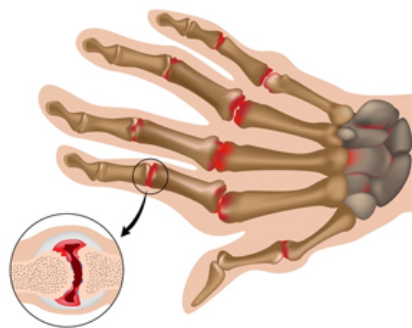
Musculoskeletal diseases

- the number of afflicted people is growing heavily,
- leading problems,
- have implications that connect them with other illnesses, and through that, they affect life expectancy,
- make everyday life harder and diminish its quality, but also have a serious effect on the patient's ability to work,
- social and financial burden on patients, on their family, on healthcare and on society too,
- (for ex. more than 100 million citizens of the EU are affected by different rheumatic diseases, the same being responsible for 50% of the short-term incapacity for work and 60% of permanent disability cases, resulting in more than 240 billion Euros of direct and indirect healthcare costs)

Indicators related to the musculoskeletal diseases and their rehabilitation

The European Musculoskeletal Conditions Surveillance and Information Network has developed:

- 12 quality indicators for osteoarthritis
- 14 for rheumatoid arthritis



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Indicators related to the musculoskeletal diseases and their rehabilitation

Professional Association of Rehabilitation:

Quality Indicator	Recommended threshold (HU)
Assessment of functional status at admission	95%
Assessment of functional status at discharge	80%
Attendance on team meetings	95%
Un-planned reassignment	20%
Deaths (exit)	2%
Auditing of deaths	100%

Indicators related to the musculoskeletal diseases and their rehabilitation

Bed occupancy

$$= \frac{\textit{number of patients' day (inpatient days of care)}}{\textit{number of the potential patients' day}}$$

- The rate of this indicator is mainly depends on the profile of the institution or the department.
- This indicator is of high importance in Hungary as the financing of the healthcare system is based on the measured bed occupancy rate of the institutions.
- It has an effect on the waiting time.

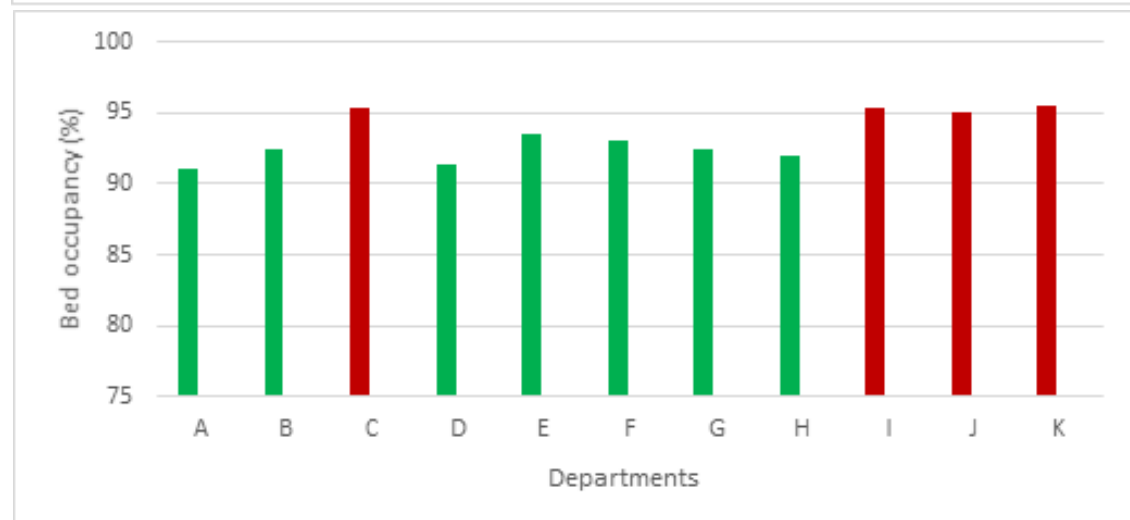
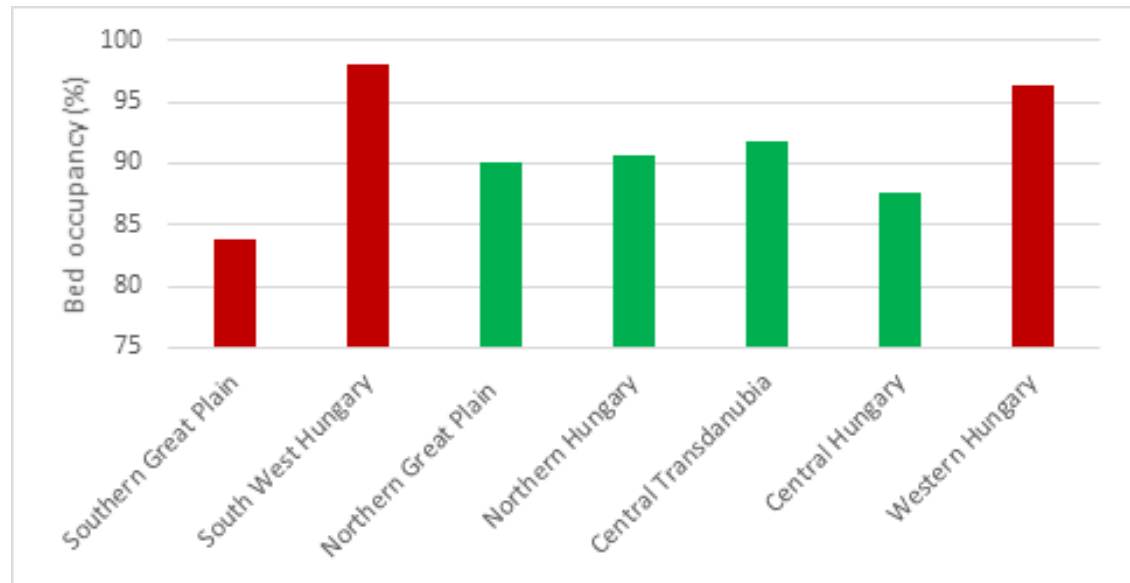
Hungarian examples for use of the **bed occupancy indicator** – musculoskeletal diseases, rehabilitation

1. „Sign”

Bed occupancy averages of the different Hungarian regions, 2014

(Source: data of the institutions specialized in the rehabilitation of musculoskeletal diseases, National Statistical Data Collection Program)

Bed occupancy of different departments of a chosen Hungarian healthcare institution specialized in the rehabilitation of musculoskeletal diseases, 2014



Hungarian examples for use of the **bed occupancy indicator** – musculoskeletal diseases, rehabilitation

2. Bed occupancy or **Vacancy rate?**

3. **There are no thresholds.**

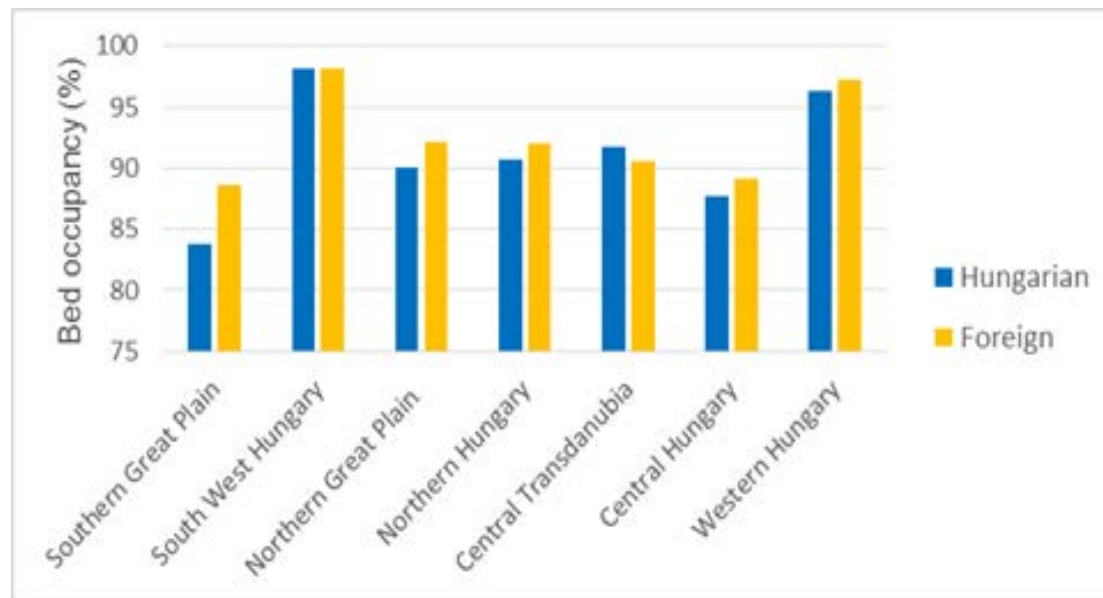
Department	Bed occupancy (%)	Vacancy Rate (%)
A	91,1	8,9
B	92,5	7,5
C	95,3	4,7
D	91,3	8,7
E	93,5	6,5
F	93	7
G	92,4	7,6
H	92	8
I	95,3	4,7
J	95	5
K	95,5	4,5

Hungarian examples for use of the **bed occupancy indicator** – musculoskeletal diseases, rehabilitation

4. Difference in the formula:

$$\text{Bed occupancy (HU)} = \frac{\text{number of patients' day (inpatient days of care)}}{\text{number of the potential patients' day}}$$

$$\text{Bed occupancy (Foreign)} = \frac{\text{number of patients' day (inpatient days of care)} \cdot 100}{\text{number of the bed available} \cdot 360}$$





Conclusion

- Use of quality indicators is expedient and beneficial: they call attention to areas (departments) where action needs to be taken, changes need to be made → quality development.
- The most benefits would result from using process indicators on an institutional or even lower, departmental level.
- But further refinement and more specified indicators would be necessary!
- Unfortunately, quality indicators and their application is not yet widespread enough today. In Hungary this tool of quality-management is still in its infancy.

THANK YOU FOR YOUR KIND ATTENTION!

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