The quality in health care-4

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Content of the lecture

- Importance of quality control
- Quality management tools
- Criteria for assessing the quality of healthcare and patient safety in life

The aim of quality control

- The aim of quality control is to ensure the reliability of processes by making them as stable as possible and by implementing a feedback mechanism for self-regulation.

Principles of quality management

- Customer/ patient orientation
- Management involvement
- Employee participation
- Process approach
- System approach to management
- Continuous performance improvement
- Decision-making based on facts
- Mutually beneficial relationships with suppliers

The 4 Steps of the PDCA(Deming) Cycle

- **Plan.** The plan step of the PDCA cycle entails setting objectives and gathering the information needed to make improvements.
- **Do**. In this step, the problem solver implements the plan. They will often do experiments or pilot projects as well.
- **Check.** Problem solving requires confirmation that the change actually improved things. Problem solvers do this in the 'Check' step of the PDCA cycle.
- **Act**. After checking, a problem solver must act on the information. It could be stabilizing the change, if things are going well, or repeating the PDCA cycle if there was still an unresolved problem.

REQUIREMENTS OF QUALITY OBJECTIVE

SMART

- S : Specific
- M : Measureable
- A : Achievable
- R : Realistic
- T : Time

Source: salesmarketinghelpcentral.blogspot.com/

Examples of targets and indicators

Indikators	Targets
Waiting time in days for visit specialists	Reduce waiting time for specialists i up to 14 days
Number of patients receiving rehabilitation services	Increase the number of rehabilitation patients by 10%
Number of satisfied patients / all patients	To increase patient satisfaction with rehabilitation services by 10%

Quality management tools

What are quality management tools?

- Problem analysis tools
- Prioritization and clustering tools
- Process description tools
- Data collection and analysis tools

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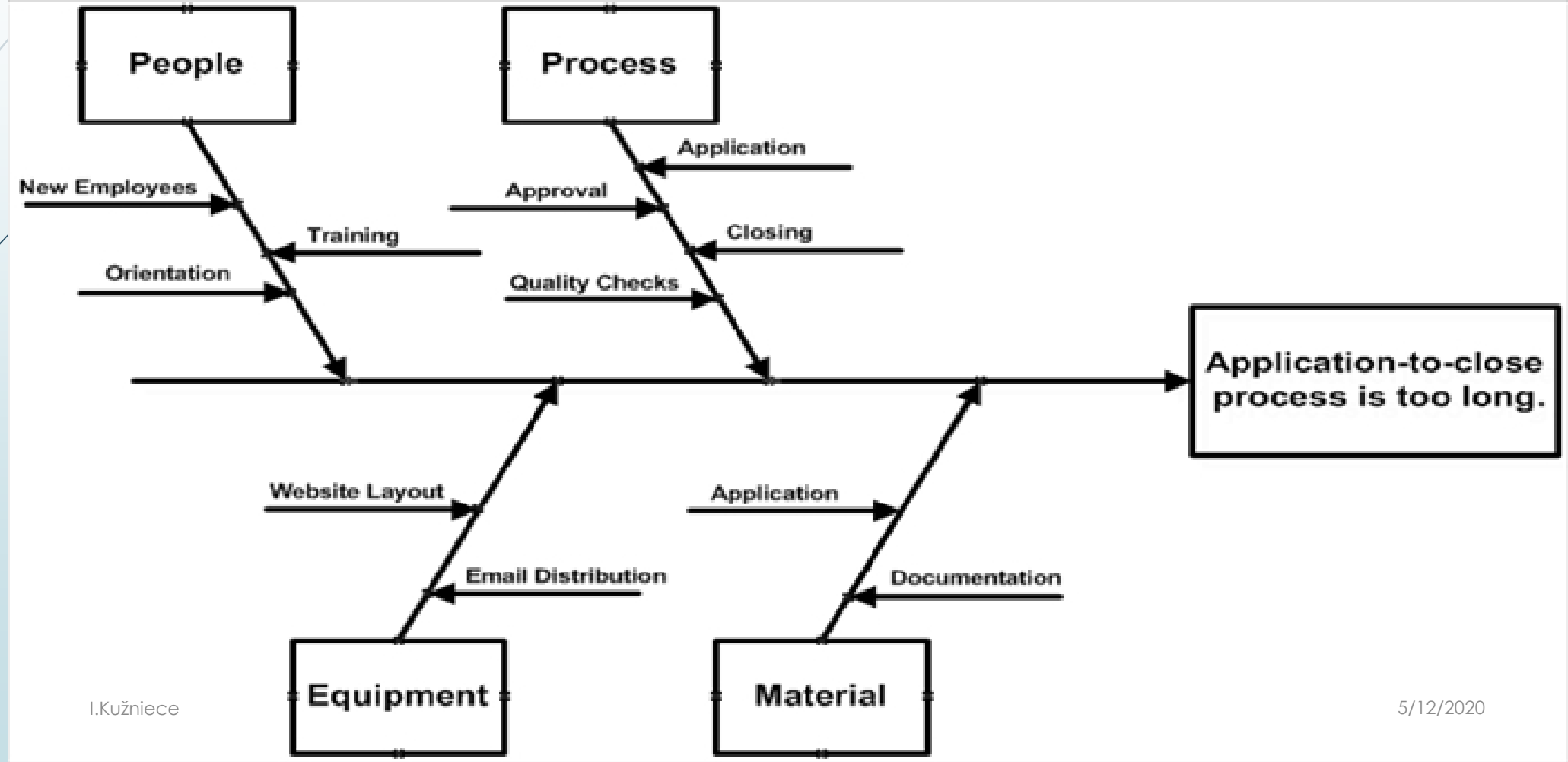
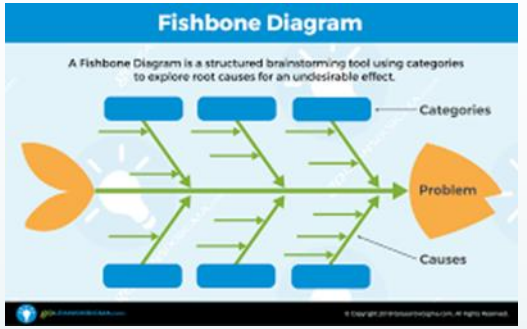
Fish bones or cause and effect diagram



Fish bones or cause and effect diagram



One of these options is usually used as the main category, adapting it to the situation

- (The 4 M's: Methods, Machines, Materials, Manpower)
- (The 4 P's: Place, Procedure, People, Policies)
- (The 4 S's: Surroundings, Suppliers, Systems, Skills)

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Prioritization and clustering

- **Pareto diagram-** is used to determine the most significant problems in the graph chart and their frequency

Its name comes from the work of the Italian economist Vilfredo Pareto, in which he studied various numerical relationships between problems and their causes, results and work, etc.

- **Prioritization matrix**

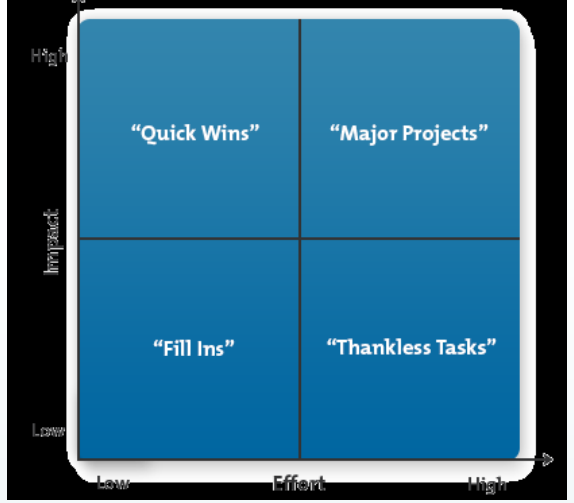
The Action Priority Matrix is a simple decision-making tool which can help to prioritize opportunities and tasks.

It works by categorizing tasks into four compartments: quick wins, major projects, fill ins, and thankless tasks

- **Affinity diagram** a way to group ideas into coherent areas or themes.


The Action Priority Matrix
Quick Wins
Major Projects
Fill Ins
Thankless Tasks
Impact
Effort

The Action Priority Matrix



- Quick Wins (High Impact, Low Effort)

Quick wins are the most attractive projects, because they give a good return for relatively little effort. Focus on these as much as we can.

- Major Projects (High Impact, High Effort)

Major projects give good returns, but they are time-consuming. This means that one major project can "crowd out" many quick wins

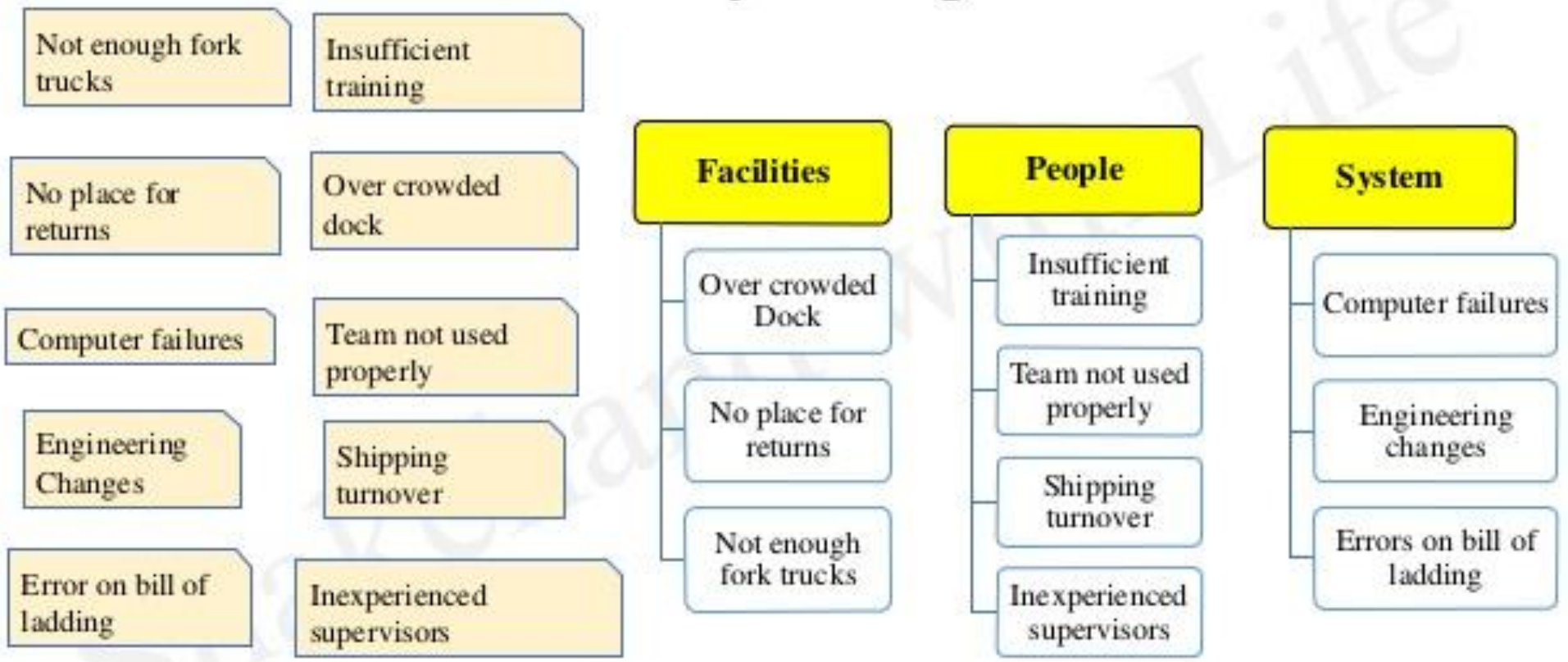
- Fill Ins (Low Impact, Low Effort)

Don't worry too much about doing these activities – if we have spare time, do them, but drop them or delegate them if something better comes along.

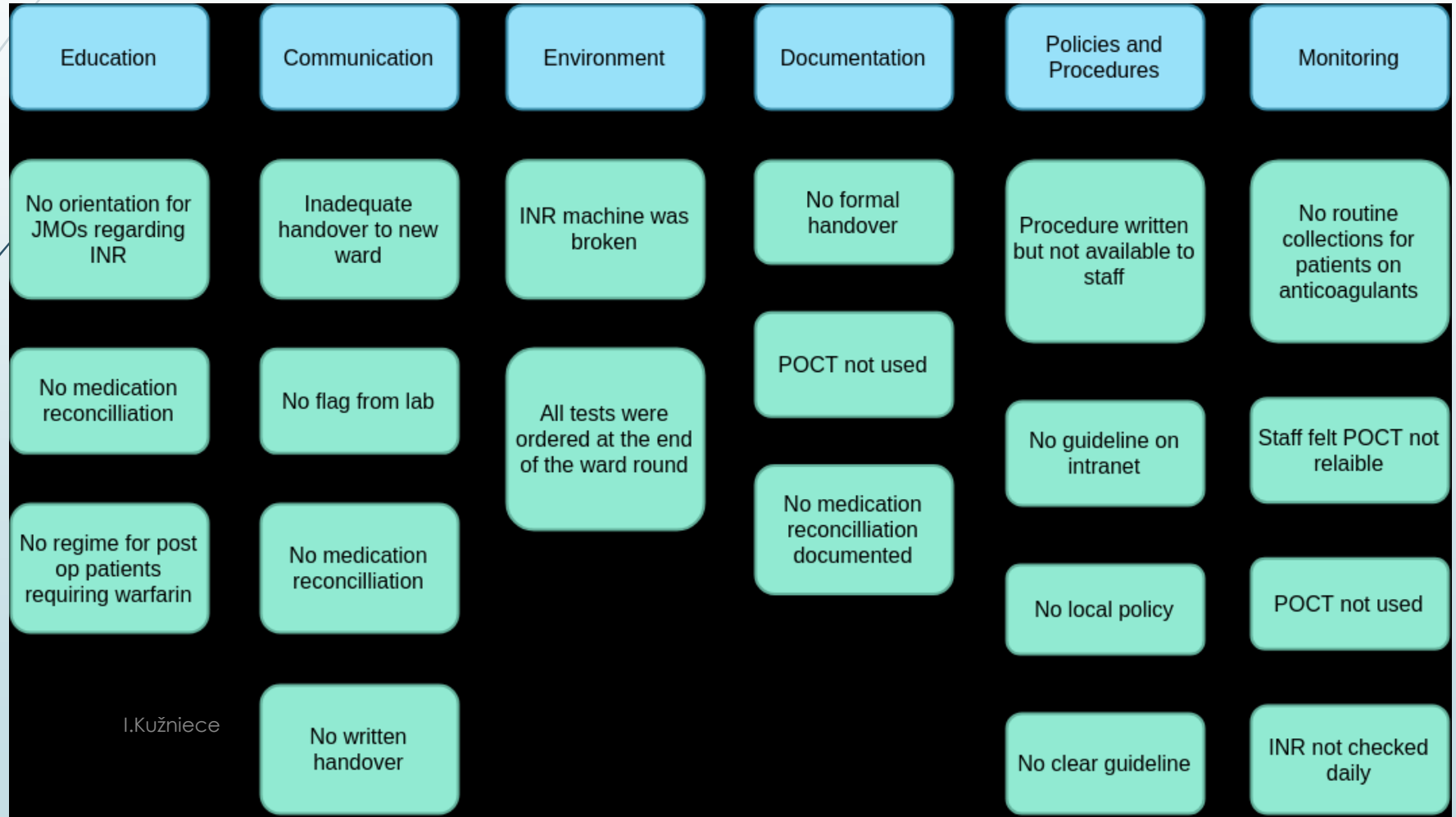
- Thankless Tasks (Low Impact, High Effort)

Try to avoid these activities. Not only do they give little return, they also soak up time that we should be using on quick wins.

Affinity Diagram



Affinity diagram



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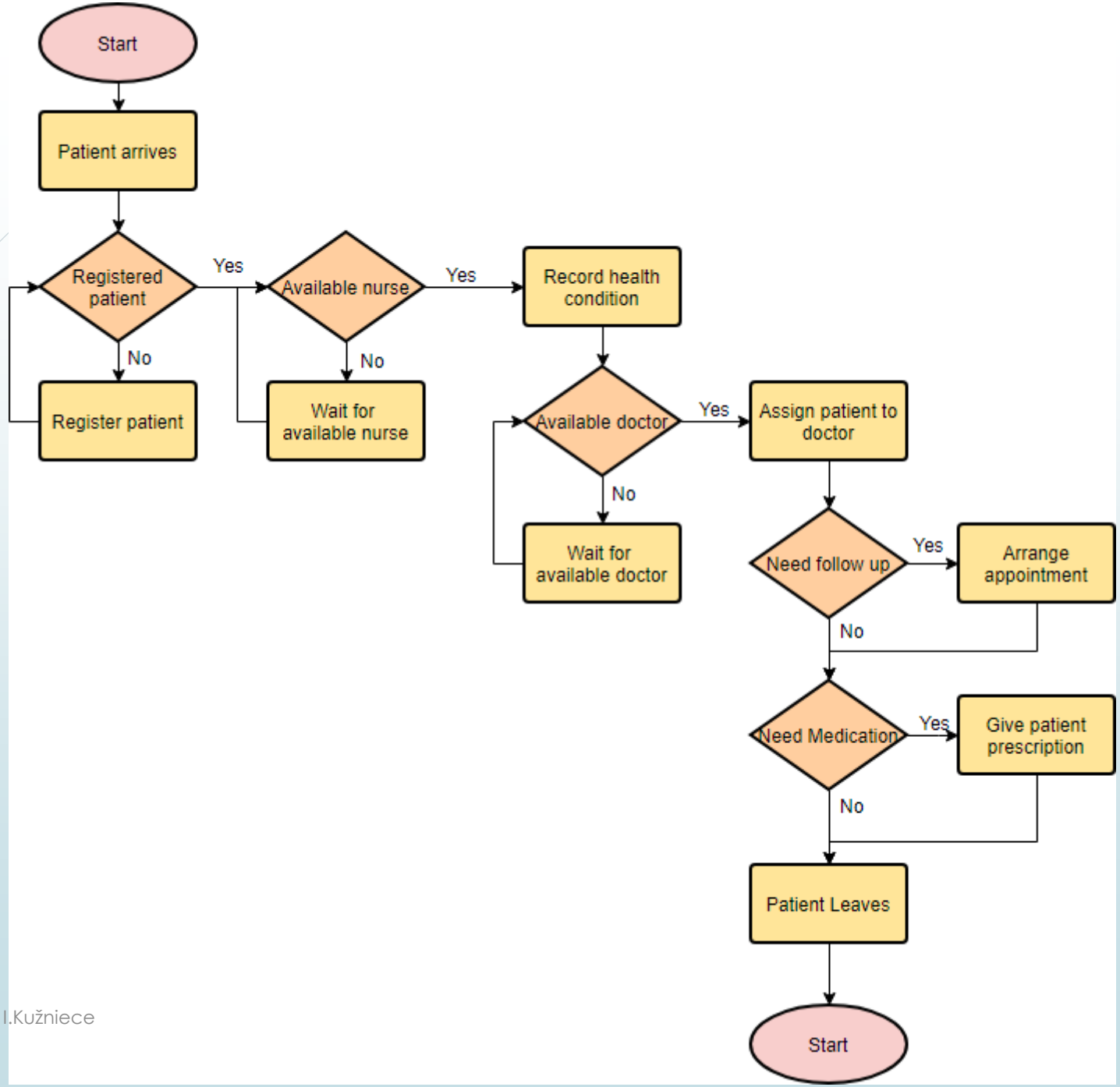
Process description tools

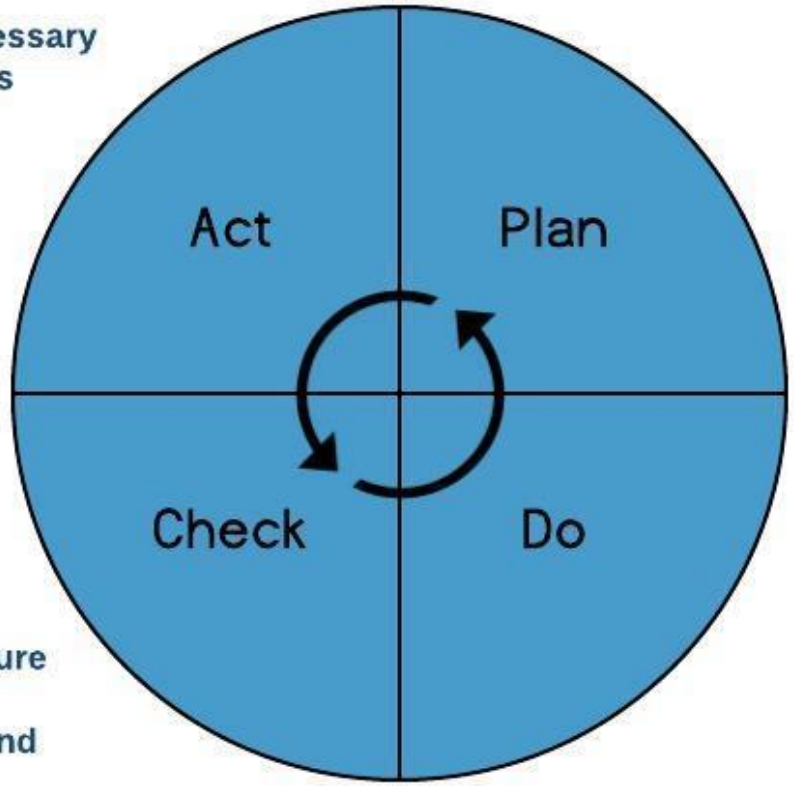
- **Flowcharting or flowchart** is a process of pictorial illustration for solving a problem. it is also a form of graphical representation of a certain process or algorithm. the activity diagram or Flowcharting is a tool for analyzing processes
- **Deming cycle** PLAN- DO- CHECK- ACT
- **The ISO 9001:2000 standard** defines the requirements on the quality management system. It is this very standard that directs certifications of quality systems. The fundamental benefit of this standard is its process-orientated approach.

Flow Diagram designing principles

Terminator		Indicates the beginning and ending of a program or sub-process. Represented as a stadium, oval or rounded (fillet) rectangle. They usually contain the word "Start" or "End", or another phrase signaling the start or end of a process, such as "submit inquiry" or "receive product".
Process		Represents a set of operations that changes value, form, or location of data. Represented as a rectangle.
Input/Output		Indicates the process of inputting and outputting data, as in entering data or displaying results. Represented as a parallelogram.
Decision		Shows a conditional operation that determines which one of the two paths the program will take. The operation is commonly a yes/no question or true/false test. Represented as a diamond (rhombus).


Start
Patient arrives
Registered patient
Yes
Available nurse
Yes
Record health condition
No
Register patient
No
Wait for available nurse
Available doctor
Yes
Assign patient to doctor
No
Wait for available doctor
Need follow up
Yes
Arrange appointment
No
Need Medication
Yes
Give patient prescription
No
Patient Leaves
Start

Deming cycle



- Establish and agree improvement goals
- Understand current process
- Identify the baseline from which to measure any improvements

- Implement actions
- Design measures and implementation plan

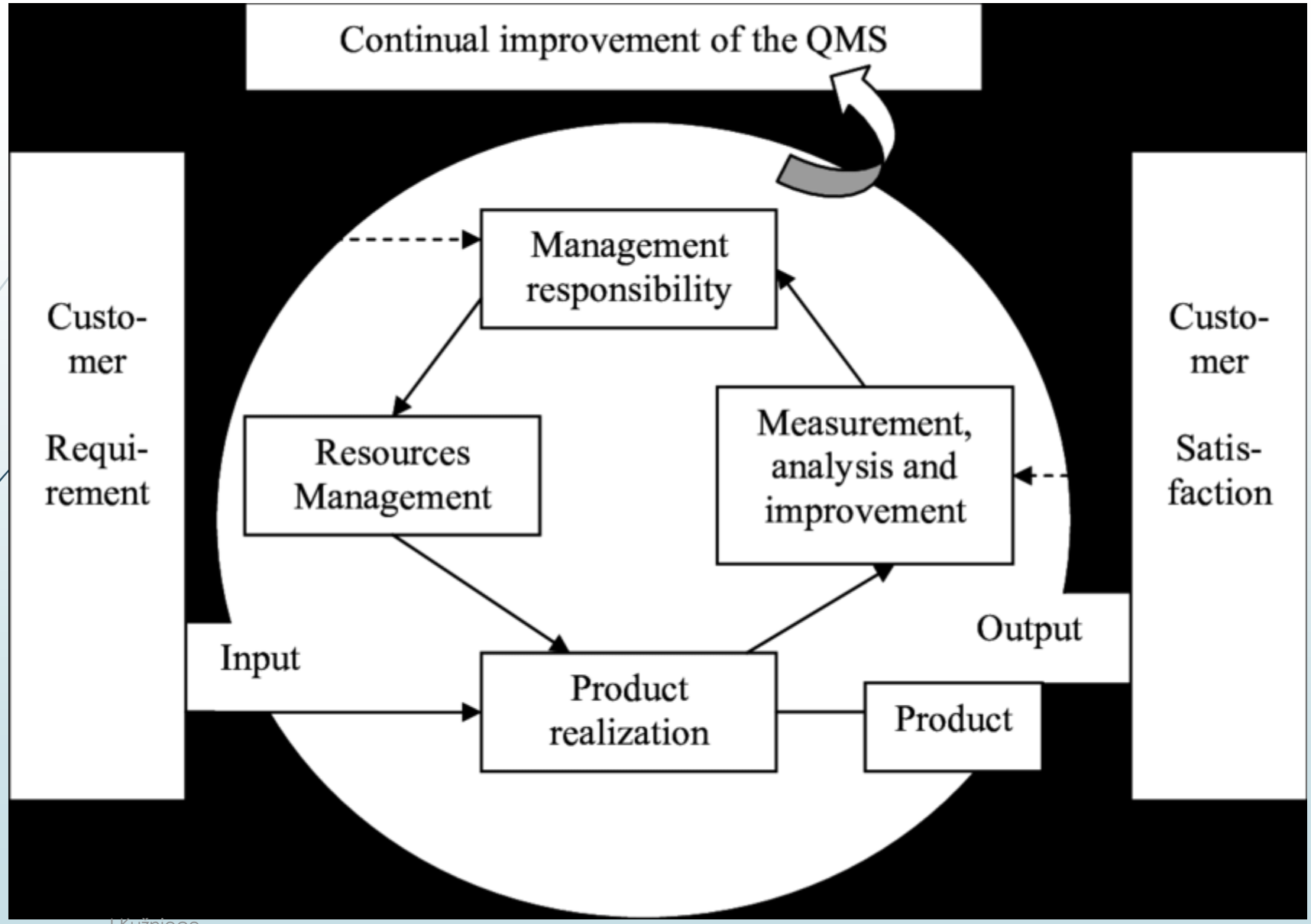
- Monitor and measure changes
- Record changes and findings

- Evaluate
- Modify where necessary to fix any problems identified

Grid of measurable criteria Covid-19 (LR 1 I.Viņķele Minister of Health 06.05.2020.)

- Number of infected patients
- Increase or decrease rates of new cases
- Number of hospitalized people
- Number of severe cases
- Compact outbreaks in institutions or settlements

emergency assessment capabilities


Continual improvement of the QMS
Custo-
mer
Requi-
rement
Management
responsibility
Resources
Management
Measurement,
analysis and
improvement
Custo-
mer
Satis-
faction
Input
Output
Product
realization
Product

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Data collection and analysis tools

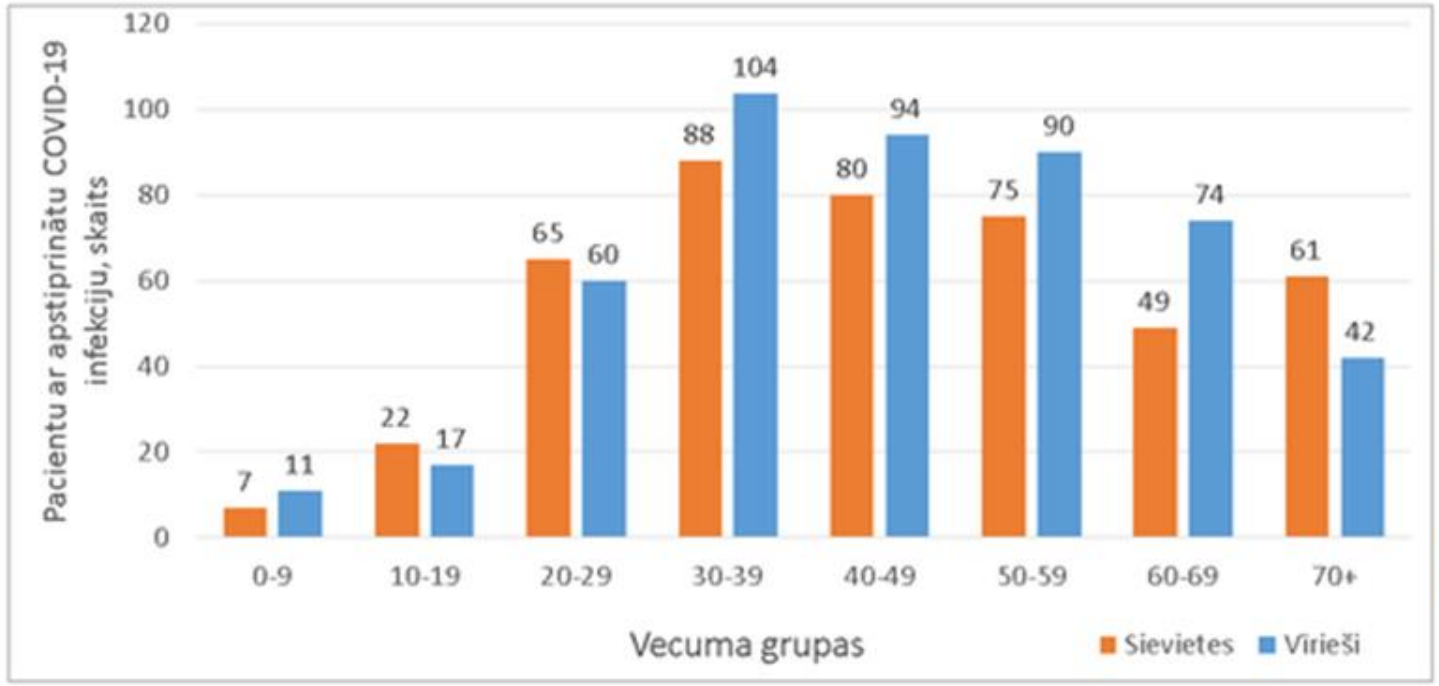
- **The check sheet** is a tool that facilitates collection of relevant data, displaying it in a visual form easily understood by the brain. Check sheets make it easy to collect data for specific purposes and to present it in a way that automatically converts it into useful information.
- A Check Sheet is a data recording form that has been designed to readily interpret results from the form itself. It needs to be designed for the specific data it is to gather.
- **Run chart** is the order in which the data are generated. The table shows the process variations and can be used to identify specific reasons for the process variation - changes, features
- **Spider chart** a visual map combining several indicators, also called a "radar map" and a gap analysis tool. This chart shows the most visible differences between the current and desired action.

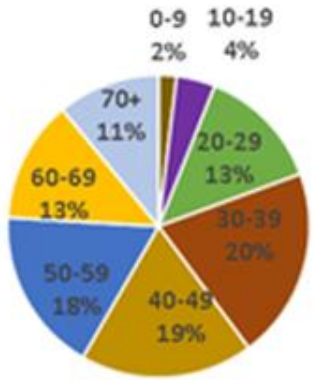
An example of a checklist: the number of weekly visits to specialists in health care unit N

	January				February				Total
	1. ned	2. ned	3. ned	4. ned	1. ned	2. ned	3. ned	4. ned	
Number of visits per week	340	400	600	900	950	970	910	920	**5990**

Pacientu ar apstiprinātu Covid-19 infekciju vecuma un dzimuma sadalījums

Slimību profilakses un kontroles centrs



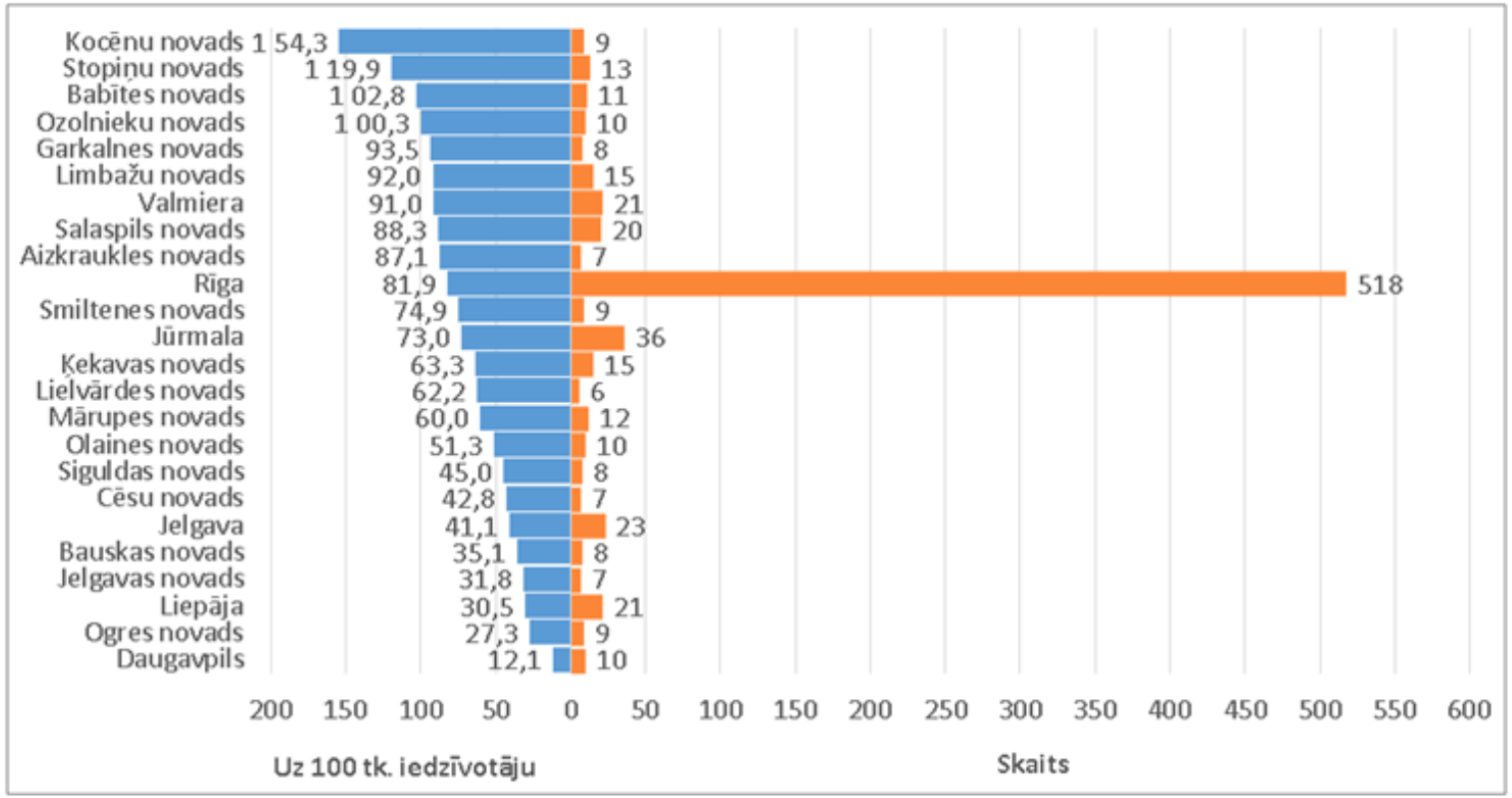


Visa informācija sagatavota, pamatojoties uz operatīvajiem datiem. Pēc personas datu precizēšanas informācija var mainīties

Informācija tiek atjaunota katru dienu plkst. 9.00

Covid-19 gadījumu skaits Latvijas novados, kuros saslimušo skaits ir lielāks par 5 gadījumiem

Slimību profilakses un kontroles centrs

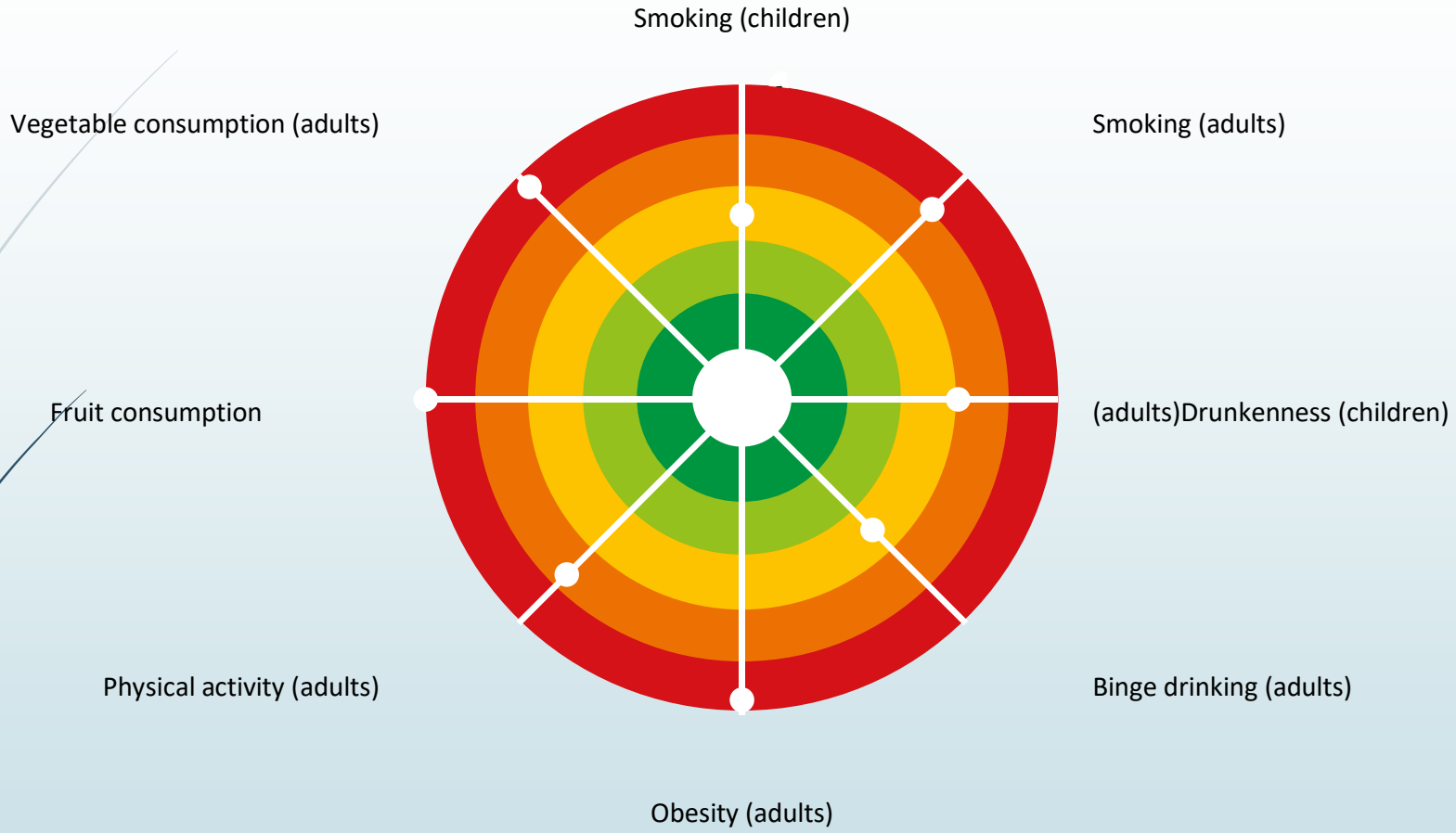


Vairāk informācijas par citiem novadiem kartē: https://arcg.is/TH51C

Informācija tiek atjaunota katru dienu plkst. 9.00

10.05.2020. © SPKC, 2020

Figure 7. Several behavioural risk factors are more prevalent in Latvia than in most EU countries



Note: The closer the dot is to the centre, the better the country performs compared to other EU countries. No country is in the white 'target area' as there is room for progress in all countries in all areas.
Source: OECD calculations based on ESPAD survey 2015 and HBSC survey 2013-14 for child indicators; and EU-SILC 2017, EHIS 2014 and OECD Health Statistics

Criteria for assessing the quality of healthcare and patient safety

An example in life

Experience in improving patient safety and quality of medical services

I. Trofimovs 2015

Criteria for assessing the quality of healthcare and patient safety -1

Based on the program "International Essentials of Health Care Quality and Patient Safety" established by the Joint Commission International

- Designed specifically for medical institutions
- Understandable to medical staff
- Covers all risk areas of the main treatment institution
- May form the basis of a quality and safety management system or complement another system

Criteria for assessing the quality of healthcare and patient safety-2

Areas of evaluation:

- Management processes and responsibilities
- Employee competence
- A safe environment for patients and staff
- Clinical care of patients
- Improving quality and safety

Evaluation methodology

All criteria shall be measurable, making it possible to quantify and compare the risk reductions achieved in each area

- Level 0 - risk mitigation activities are missing or incidental
- Level 1 - the structure for the planned implementation of risk mitigation is starting to form
- Level 2 - a process for effective risk mitigation has been established
- Level 3 - there is data that confirms successful risk reduction and continuous improvement

Example in an X hospital

- Staff education, 2.88
- Compliance with legislation and regulations, 2.70
- Contract management, 2.6
- Personnel files and job descriptions for all employees, 2.61
- Use of protective equipment, 2.58
- Documentation of planned and provided care, 2.55
- Evaluation of medical and care of all patients, 2.52
- Availability and reliability of laboratory services, 2.52
- Supervision of doctors' qualifications, 2.82
- Transplantation and transfusionology, 2.75
- Contract Management, 2.73
- Staff education, 2.73
- Communication between care providers, 2.73
- Use of protective equipment, 2.73
- Disposal of sharp objects, 2.73
- Disposal of medical waste, 2.73

For quality…..

In order to manage the organization, improve quality, identify problems, risks, it is necessary to answer the following questions:

- **What services** does our organization provide?
- **What are we able** to do and what are we going to do?
- **For which** environment ("market" share, region, customer category) are we going to provide (provide) services, how do we "look" in it?
- **Who** is our customer, the consumer of our services?
- **What** does our client need?
- **What** benefits, added value does it bring them?

Paldies par klausīšanos!

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