

Title	6 Ways to Specify Healthcare Process Improvement
Description	What are the benefits of healthcare process improvement and what tools you can use today? Find out about the potential impact on: ☐ costs ☐ waiting times ☐ patient care
H1	6 Ways to Specify Healthcare Process Improvement

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From this guide, you are going to find out all you need to know about healthcare process improvement: what it actually means, what benefits it can bring, how it can cut costs, what steps are needed to implement it, what outcome you can expect, and also, how Empeek company can help you to create and implement a viable and effective healthcare process improvement strategy.

What is process improvement in healthcare?

Healthcare processes imply every activity and outcome in a healthcare organization from patient admissions to medical billing. Although healthcare in developed countries is considered advanced from the perspective of innovational and even revolutionary diagnostic and treatment techniques, the ongoing Coronavirus disease pandemic has clearly outlined the significant drawbacks which are the outdated medical and administrative processes management and a severe shortage of personnel.

Process improvement in healthcare implies the development and implementation of new technology that can solve the existing problems.

Why is process improvement important in healthcare and what are the benefits of process improvement in healthcare?

Poor and outdated medical and administrative processes in a healthcare organization affect the quality of patient care, raise costs, and make medical institutions unable to cope with the influx of patients. It has become especially obvious in recent years due to the pandemic.

Now more than ever it is evident that there is a dire need for optimized processes for the entire healthcare system to respond and recover to be able to render care to patients with Coronavirus disease and non-COVID-19 patients.

Implementation of process improvement tools in healthcare can solve the problem of staff shortage, better care quality, and substantially lower costs through the use of new technology that can relieve medical staff from an array of actions while also cutting the costs and time of information processing.

6 ways of healthcare process improvement



Now that you figured the benefits of process improvement in healthcare, it is time to take a closer look at the process improvement examples in healthcare. Below you can find six process improvement strategies in healthcare explained.

#1: Solving ED overcrowding

Overcrowding is a common problem of the majority of emergency departments (ED). The clear indications of the issue are long wait times and failure to provide care for a large portion of patients. It is a major problem resulting in higher patient mortality, and costs per patient, not to mention the high level of patient dissatisfaction and tense environment for the medical personnel. Technological hospital process improvement, in this case, offers a data-based patient flow management allowing transforming ED care in five steps:

- Analysis of ED productivity.
- Revision of high-load workflows.
- Revision of staffing patterns.
- Establishing management expectations.
- Improving patient experience.

#2: Integration of 6 Lean principles for healthcare quality improvement

Lean principles focus on eliminating waste and bettering customer, or in our case patient, experience. This approach implies the application of strict measurement of clinical data to routine care. It allows figuring out the best protocols that can be integrated to streamline the workflow. The use of this data by the teams enables a continuous-learning loop within the whole organization, eventually cutting costs and improving quality and access to medical care.

#3: Using Machine Learning for patient flow improvement

Machine learning can be effectively used for predictive models such as patient flow for different hospital departments. It can help with reducing waiting times, lowering the load on the medical staff, facilitating and speeding up hospital discharge, bettering patient care and overall patient satisfaction, as well as cost reduction. The significant improvement can be achieved in three steps:

- Creation of a data science team or outsourcing it from a tech company such as Empeek.
- Creation of a machine learning pipeline to cumulate data from all relevant sources.
- Creation of a leadership team responsible for data use management.

#4: Preventing drug errors

According to statistics, drug errors affect over 7 million patients every year in the U.S. that suffer from preventable side effects. This also results in around \$20 billion in losses in the healthcare industry. Healthcare systems process improvement available today for monitoring and prevention can help avoid the majority, if not all medication errors, which is beneficial for both healthcare organizations and patients.

#5: Decreasing unwanted variation in healthcare organizations

Unwarranted variation in healthcare is a term used in medical practice for an unexplainable pattern that cannot be justified by illness, medical need, or evidence-based medicine requirements. It is considered one of the major reasons for poor care often ignored by healthcare organizations. However, there is a way to improve this situation with a process improvement plan in healthcare consisting of just three steps:

- Elimination of impediments on a community level.
- Be open to sharing knowledge and information on errors.
- Lower the extent of variation.

#6: Prioritizing process measures over outcome measures

Currently, healthcare organizations are prioritizing outcomes over process enhancement. However, this approach leads nowhere when talking about continuous improvement of patient care and cost reduction. On the other hand, focusing on process measures, i.e., analyzing and using detailed data on the processes, enables healthcare systems to identify the origin of the failures.

These are some of the already proven to be effective ways for health systems improvement, but there is always a place for new ideas and technologies. You can even come up with your own process improvement methodologies in healthcare, and we will gladly help you implement them.

Improve Processes in Healthcare with Empeek



Empeek is an IT company offering [process digitization services](#) and specializing in innovational IT solutions for healthcare business process improvement. Our young company established in 2015 has already completed more than 20 major projects starting from apps with unique features to enterprise-level systems based on healthcare process improvement ideas. Our team is made of 100 IT specialists united by a goal of offering bespoke technological solutions for the global market's problems.

We offer custom-made solutions incomparable with out-of-the-box software. Whatever your idea and goal are, we are here to help you make it come true.

But don't take our word for it, see the case studies of our ongoing or successfully launched projects:

- [Health Monitoring System Using IoT.](#) Empeek is proud of its expertise in medical data processing using sensors for IoT and wearable devices. The integration of such devices can be viewed as one of the steps for process improvement in healthcare. This particular health monitoring system is developed to allow healthcare providers to monitor the vital signs of their patients using a single device with a customized MAX30100 sensor. It allows assessing blood oxygen level, pulse rate, and heart rate sending it from wearable device directly to the healthcare provider's screen.
- [Mobile and Web Development for ACT Team Collaboration Platform.](#) Providing good and affordable care for people with serious mental illness (SMI) is one of the major healthcare issues in the U.S. Currently, the support to this group of patients is provided by the Assertive Community Treatment (ACT) teams and community mental health clinics (CMHC) that offer the help of psychiatrists, nurses, social workers, counselors, addiction, and other specialists that monitor patients and take action in case of emergency. The idea of our client is to facilitate and shorten the response time of support groups to provide better patient care as well as facilitate the work of professionals. Empeek has already created a minimal viable product (MVP) and continues working on the project to launch the solution. You can find out what we have already performed and what's next on our roadmap on the project page.
- [Medication Testing System.](#) This project is an example of business process improvement in healthcare. It is a comprehensive system for accessing, tracking, and managing medication testing data. The system was developed for the US-based company specializing in drug testing and background screening for over 1,000 residential communities, defense contractors, and companies in the Transportation and Oil and Gas industries. When we were invited to join the project, the company used an old Windows-based

internal system that made all processes cumbersome and quite costly restricting actual productive time to office hours and local machines. Empeek came up with a web application accessible and manageable from any device based on microservices. This helped the company substantially reduce the time of client requests processing and compete with larger companies offering the same or similar services.

FAQ

What does process improvement in healthcare mean?

Healthcare processes mean all activities taking place in a health organization. Their improvement implies the implementation of technological solutions to better care, patient satisfaction, solving the problem of staff shortage, and cutting operational costs. In general, it means overall quality improvement in all aspects of healthcare organization operation.

How to implement healthcare process improvement?

The most effective way is to implement new technology such as machine learning and intelligent automation.

What are the steps of healthcare organization process improvement?

- Identification of problems;
- IT experts for proposing solutions;
- Implementing solutions with the help of IT experts.

Find out about possible solutions in detail from our guide.