HEALTHCARE UX CHALLENGES:

The Importance of UX in Healthcare-Related Software

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Intro

New challenges in the healthcare industry accelerate the development of healthcare innovation.

Innovative healthcare software systems deliver quick access to patient information at the high levels of accuracy while providing safety and legislation of private sharing of medical records among the professionals, providers, and patients themselves.

Eager to improve patient care, medical facilities are looking for means to digitize medical services and administrative processes.

As the main focus is always on the functionality, the role of a user experience design in healthcare software often remains undervalued and overlooks.

In this whitepaper, we'll outline key design trends in medical technologies, explore healthcare UX challenges, overview software products' design.

In the final parts, we'll assess the impact of the design for the main group of end-users – patients, and make up a check-list for UX designers.

Healthcare IT UX Facts, Stats, Projections

Healthcare information systems are becoming more popular among health providers in well-developed countries and emerging economies.

They deliver an opportunity for physicians to provide better diagnoses, fill the records with improved accuracy and precision, hence, commit fewer medical errors.

After decades of experience, health professionals are suffering from burnout symptoms due to the stress of keeping up with the challenges of using healthcare systems.

To the point where problems with electronic health record workflows (as well as the inability to share patient information between clinics) are driving some physicians right out of healthcare.

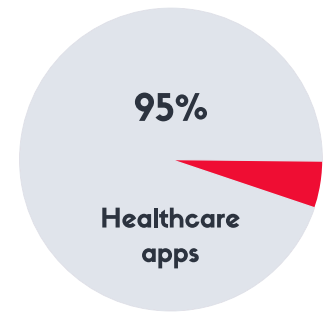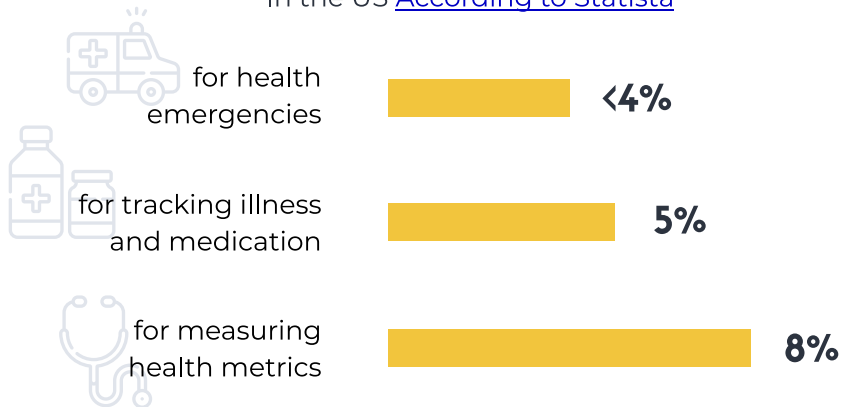Between 50% and 70% of physicians are experiencing burnout symptoms due to EMR-related workloads.

Judy Faulkner, CEO of Epic, whose EHR platform has the largest adoption rates, said there's **no high correlation between physician burnout and satisfaction with EHR**.

Dissatisfaction is often caused by a lack of training of specialists, rather than the software dysfunctionality. At the same time, the user-friendly interface would resolve the situation.

The adoption rate is extremely important for other digital healthcare software as well. For most companies, high adoption is key to higher revenue.

Adults, who use digital health apps

In the US According to Statista

for health emergencies	<4%
for tracking illness and medication	5%
for measuring health metrics	8%

95%

Healthcare apps

are **never** looked at/ are used only once

In this highly competitive environment, UX could be the changing factor.

UX research by Genesys highlights 3 core factors that serve as competitive advantage drivers. They are **user experience**, **price**, and **quality**.

User experience leaders achieve:

- revenue gains of 5 to 10%
- reduce costs by 15 to 25% within two or three years
- decrease the churn rate by 10 to 15%.

An effective, intuitive improve patient digital experience is to embrace UX design principles. We'll speak of them later in the document.

The general trend for the industry rises the high level of demands for the UX and usability of its' digital products.

UX Challenges   Big UX challenges designers cope with

Big variety of end-users

Applications, software systems, and platforms address a diverse population of users that includes (but not limited to) clinicians, surgeons, pediatricians, intensive therapists, ambulatory physicians, nurses, technicians, patients of different ages and levels of education.

Data sensitivity

The end-products support complex decision-making process. Any EHR represents a system for people with diverse backgrounds who are looking, analyzing, and sharing large numbers of sensitive data.

Multiple application ocations	**Fast pace of healthcare domain development**
Apps and systems are used at offices, in operating rooms, in an ambulance, in a house, and the software has to be adjustable to these diverse	Healthcare is a very dynamic domain - with its new brand practices, treatments, and standards appearing with high regularity. Professionals need to be updated, as does their technology. That brings new tasks for the software designer.
3	4
High competitiveness of the field	**Critical nature of systems**
One has to compete with the field of applications and programs of the same functionality and make their product stand out from the crowd. Top-notch UX might be a differentiating factor.	Healthcare systems have to manage matters of life and death, literally. There are cases of UX design in healthcare apps that literally saving lives, and this is the factor that can't be overlooked
5	6

Healthcare Software in Question

01. Telemedicine

Telemedicine entered the stage like no other industry in 2020. It is an instrument that allows physicians to provide online consultations, diagnostics, and even treatment remotely. It is not really different from a traditional visit to a doctor's office – except for all the actions taking place online.

Healthcare solutions that are used in this domain are video conferencing software and remote health monitoring applications. The concept is fast in its evolutions and has plenty of room for new ideas.

Things to consider: The group of customers that is going to use the telemedicine solutions is pretty diverse. UX designers should keep in mind that the solutions must be created for the different categories of patients as well as for the doctors. Tech skills and possible sufficient age of the patients should be taken into the account.

02. Health wearables

The popularity of smartwatches and fitness trackers continues to grow, expecting to reach 1.1 billion items by 2022. The functionality of such devices also doesn't standstill.

The most basic metrics that are monitored by virtually all the devices are steps, heart rate, and sleeping state. Medical devices tend to be more advanced and should detect deviations in health condition and alarm the person who wears the device and their doctors.

Things to consider: The interface should be simple and user-friendly. Users of different categories should be able to avoid confusion and quickly get all the necessary data. Therefore, "fast" is the priority over the "powerful" in the user experience of wearable devices.

03. Healthcare chatbots

In healthcare, the chatbot technology is still in the early stage of implementation. Hospitals and clinics use chatbots mostly for experience optimization. Simple chatbots help patients book appointments, connect patients with doctors, and collect feedback after a consultation.

Chatbots should be able to analyze health information provided by a user and offer responses with personalized instructions. Powered by artificial intelligence, healthcare chatbots can help medical organizations deliver patient-centric services while reducing workload for doctors.

Things to consider: "Keep it real" in terms of providing conversation that a patient could have had with a real consultant. As long as patients feel that they're communicating with the real person, chatbots will succeed.

04. Medical virtual reality

Virtual reality opens doors to a variety of new opportunities for the healthcare industry. First of all, this technology improves the training methods for doctors. It also allows doctors to master professional skills without risking the health and life of real patients.

Things to consider: Surgeons who used the VR platform for simulating operations enhanced their performance by 230 percent compared with doctors who used traditional training techniques. Surgeons should feel like they are in the operating room, and today's tech is able to provide just that.
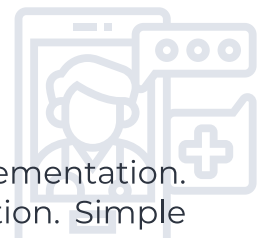
O5. Electronic Health Record systems

Medical documents put a massive burden on the workers. A simpler EHR would benefit on the market.

MD Gregory Shmidt nicknamed his experimental project Simple App and literally made everything as minimalistic as possible without violating any rules.

"What is the most simple electronic health record application that could be built? What are the absolute fewest number of moving pieces needed?" - were the questions he asked while designing an EHR.

Things to consider: Keep it as simple as it gets. Additional functions might look good on paper, but they won't bring any value to UX.

Impact of UX for the Patients

Patient portals provide us (common public) with a great way to keep track of our health state. Back in the days, such software possessed the limited set of functions available to the patients.

With time, the functionality of such software has increased. Now, these apps address all the major patient's needs. One is able to cancel, delay, or reschedule the appointments and provide with pills refill. Health apps offer networks for medicated patients with the help of caregiver notifications.

Patients need to be empowered. The challenge of UX developers is in providing patients with massive independence from doctors by informing them well about health choices. Instead of blatant googling of their symptoms to find doctor-less solutions, patients receive quality information from well-designed software.

Health apps are growing quickly for physical activity recording. Smartphones and other smart devices and their accessories are being used to capture carious fitness and health-related metrics.

While technology enables designers and developers to create these exciting features for monitoring the body's functions, **it is not a proven fact** that these devices are beneficial for the users' health.

Interoperability being an old goal, still remains a challenge for patients and organizations to exchange health records without pain points.

Patient empowerment means that patients are the owners of their health information. Integrating data from sensors and EHR promises to give users independence from providers and better access to their health records.

Must-List
for the Healthcare UX Specialist

01	Thorough studying of an industry and its trends is a must
02	Research and definition of the customer's pain points
03	Usability testing held with the exact same demographic representatives that use product
04	Keeping up to simple interfaces
05	Avoiding difficult medical jargon and slang in the end versions of the product

Thorough studying of an industry and its trends is a must

Healthcare in the US is one of the most complex in the world. European healthcare requires GDPR regulation in addition to world standards. Every UX expert should hit the ground running and research all the details you don't fully get.

That includes studying the insurance plans, learning different terms, understanding deductibles, and other subtleties.

Healthcare could be a very specific industry, and deep analysis is absolutely necessary.

Research and definition of the customer's pain points

The best way to research the business is by taking conversations - with both patients and doctors, the end-users of healthcare apps.

UX designer should build a customer persona - study his/her lifestyles, goals, values, and challenges to deliver a quality product for the right target audience.

Define and study all the people who will be involved in using your application - that would help your cause.

Usability testing held with the exact same demographic representatives that use product

This point is tightly interlinked with the previous one. UX designer who understands users of his current product has to test different features of an app with the exact same target audience that would be using products.

Usability testing is an integral part of delivering just the right product to the market. While it is hard to find people with exact identical health problems, you should at least stick to the same demographics.

In short, do not test the medical app that helps with drugs for back pain on those who don't experience such medical conditions and likewise.

Keeping up to simple interfaces

It is extremely important to remember there is still a wide gap in understanding tech between the software engineers and average consumers of healthcare services and products.

Your product must satisfy the needs of less tech-savvy users, boiling each interaction down to its simplest components is often a key to the best design practice.

Avoiding difficult medical jargon and slang in the end versions of the product

PolicyGenius held a survey (available only for US residents) that discovered that a very small portion of Americans is able to correctly define all four common healthcare insurance terms (such as out-of-pocket maximum, copay, co-insurance, deductible, etc.). In addition to the simple design, content also must not be too scientific.

Resources:

- UX Stats Collection
- Statista mHealth Report 2019
- ComputerWorld Article about EHR Burnouts
- Genesys UX Research
- Patient Empowerment
- Statista Wearable Technologies Report 2020

- Harvard Business Review on VR
- Simple EHR Development
- UX Design Healthcare Tips
- UX Planet on Design Thinking
- PolicyGenius Survey
- Internal Commentaries of Elinext UX Specialists

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