



Trends 2023 **HEALTHCARE INDUSTRY**



As we enter the third year of the pandemic, health professionals around the world continue to face an overwhelming workload and severe workforce shortages. Over time, the continued rise in chronic diseases, increasing healthcare costs, growing inequalities and climate change will only add to this burden if we do not urgently rethink how and where care is delivered. Meanwhile, patient and consumer expectations of health care are changing. Future healthcare systems will need to provide more accessible, adaptable and equitable care, while helping to preserve the health of the planet. These trends show how digital and sustainable innovation can help us meet that goal.



Freeing up professionals' time to focus on patient care by automating patient care by automating routine tasks with AI

One of the main sources of stress and burnout in healthcare is that highly trained professionals spend an excessive amount of time on routine tasks that take their attention away from the patient. For example, in radiology departments, imaging personnel claim that nearly 25% of their work is inefficient and could be automated.

With the growth of AI in healthcare, we now have the tools to automate such tasks to ease the burden on imaging technologists and free up time for patient care. Especially in complex imaging modalities such as CT and MRI, AI-powered technology can make it easier for technologists to plan and execute routine exams, helping them get images right the first time with greater confidence and accuracy.

Likewise, we will see greater use of AI-based automation in image-guided therapy, where physicians perform minimally invasive procedures on patients with heart disease or other conditions. Today, interventional physicians can spend up to two hours debriefing cases after a full day treating patients. AI could help alleviate this workload by automatically recording different steps of the procedure, allowing physicians to give their full attention to providing patient care.

Improving access to care through virtual collaboration among providers

The use of virtual care has boomed in the past year, with 64% of global healthcare leaders saying they are currently investing heavily in it. But while this healthcare technology trend is seen as affecting the patient-provider relationship, the rise of virtual collaboration among providers themselves offers equally promising opportunities.

The accelerated adoption of tele-ICU in intensive care is a good example. As an example, tele-ICUs, led by an intensive care team in a central health monitoring health center that acts similar to an air traffic control center, can get critical care resources to the patient, no matter where the hospital is located. With critical and urgent data collection, these intensivists can be responsible for 50 to 1500 remote ICU beds at a time, and intervene quickly should data and trends indicate early signs of patient decline.

One such innovation in medical imaging, called Radiology Operations Command Center, allows expert imaging technologists to remotely train, guide, and assist less experienced or specialized colleagues via satellite locations. This can provide real-time guided assistance, making specialized expertise more widely available at all sites to ensure consistent image quality at all sites while improving access to care.

In the same way, in ultrasound, using a live collaboration platform, experienced ultrasonographers can remotely assist their local counterparts with performing examinations, while colleagues can use the same platform to discuss the medical status of patients with them. Interventional physicians performing minimally invasive image-guided procedures have also begun to explore the use of virtual collaboration platforms to provide remote guidance and education to colleagues.

At the end of the day, the power of virtual collaboration is threefold: it can make specialty care more accessible, it can make it more affordable, and it can improve consistency in the quality of care and reduce safety risks in times of COVID-19. Three big reasons why this healthcare technology trend is expected to grow significantly in the coming years.



Connecting the hospital to the home with virtual health care

Patients and consumers will continue to play an increasingly active role in their healthcare experience. From wearable devices and health tracking apps to pre-operative health guidance, and patient-reported outcomes, innovations in health technology are enabling people to better interact with providers, access more care overall, and get the resources they need to stay informed while taking more preventative health care measures.

At the same time, healthcare providers are increasingly looking to remote patient monitoring and virtual consultations to maximize access to care, maximize connections with populations at risk, minimize the risk of COVID-19 transmission, provide more convenient experiences, and reduce the burden on scarce hospital resources. This has given renewed and urgent impetus to the implementation of digital health solutions at scale, with the e-health market projected to grow by more than two-thirds in the U.S. this year alone.

But while this health technology trend is certainly a positive step towards the dream of "anytime, anywhere" care, there is still a long way to go. According to the World Bank and the World Health Organization (WHO), half the world still does not have access to quality healthcare, and without drastic action, the WHO estimates that 5 billion people will be unable to access healthcare by 2030.

That's why it's key that the world's leading healthcare organizations continue to pioneer digital health technologies that bring care to patients and partner with local providers to further improve access to quality healthcare for everyone, no matter where they live.

Data integration to allow clinical collaboration and patient-centered care

More than ever, multidisciplinary care teams struggle to connect and track all relevant information about their patients, from a variety of subspecialty reports to information about patients' current status, demographics and history. Making a decision about appropriate therapy is just as complex, especially in areas such as oncology, where physicians and patients can be faced with an overwhelming number of options.

That is where integrated diagnostics comes in: a fast-evolving field that allows organizations to have smart, connected systems that give them a complete, actionable view of their patients by bringing together imaging, monitoring, laboratory, genomic and longitudinal data. Multidisciplinary cancer committees are a great example of this healthcare technology trend. With integrated diagnostic solutions, care teams can now deliver comprehensive, patient-centered cancer care by bringing together patient data from disparate sources into dashboards, facilitating collaborative diagnostic, treatment and follow-up decisions.

However, this does not mean that oncology decision making will be fully automated in the future. In fact, the goal of this healthcare technology trend is not to replace humans with automation, but to support healthcare teams with relevant, evidence-based guidance to aid in shared decision making with the patient, so that decisions allow them to enjoy the best possible quality of life, close to their loved ones, for as long as possible.

We see the same focus being adopted in cardiology, where integrated diagnostic solutions, enhanced by intelligent algorithms and predictive analytics, are helping cardiology care teams make faster clinical decisions by providing relevant and actionable information that helps optimize patient care.

Using predictive analytics to manage care transitions proactively

For hospital managers faced with unexpected surges in patient demand, the ability to anticipate and adapt to rapid change has become more essential than ever. What if we could predict potential patient flow bottlenecks in real time and prevent them before they occur?

Healthcare providers are increasingly sharing real-time data to visualize unused capacity, proactively facilitate transitions of care from one setting to another, and forecast and prepare for future demand. Using the power of AI and predictive analytics, we can now extract relevant information about patient flow and patient care needs from large amounts of real-time and historical hospital data to predict capacity needs over the next 24 to 48 hours. After initial validation, the resulting algorithms can be regularly updated to account for recent trends and circumstances, giving clinical and operational teams the real-time actionable information they need to make timely and effective decisions.

By incorporating these data-driven practices into the day-to-day management of patient flow, health systems will be able to make the most of their valuable resources and more effectively manage care transitions throughout the patient journey, from admission to hospital to discharge and return home, to ensure that the patient receives the right care in the right place at the right time.