



PART I: THE STATE OF THE HEALTHCARE SECTOR RIGHT NOW



Dearth of Skilled Professionals Is Making it Difficult for Hospitals & Healthcare Organizations to Deal with Disruptions

As the Indian healthcare sector matures and bigger players enter the market, to make the competition more structured as opposed to unstructured, leadership in the industry are asking the hard questions about how they can stand out in the cluttered category and deliver outcomes that make patients happier and continue their loyalty with the hospital in case of any future medical event.

From a global perspective, the future of the healthcare sector appears promising and is projected to reach US\$85.95 billion by 2027, with a CAGR of 10.40% from 2023 to 2027. The number of healthcare users is expected to amount to 1.6 billion users by 2027, with user penetration reaching 19.8% and average revenue per user (ARPU) anticipated to amount to US\$50.20 globally. Notably, a significant portion of this revenue is generated in China, where the market is expected to reach a volume of US\$19,070.00 million in 2023. From the outside, the picture seems promising, but the ground reality of the healthcare sector's challenges and complexities remains a critical factor in shaping its future.

Insiders from the healthcare industry know all about the growing pains of running profitable hospitals and healthcare institutions in

this rapidly changing industry. Advancements in technology, such as artificial intelligence (AI) and telemedicine, are transforming healthcare delivery. Changing patient expectations, such as the demand for more personalized care and convenience, are also putting pressure on healthcare providers. And the widespread impact of the global pandemic has accelerated many of these trends.

But the biggest factor impeding a smooth growth trajectory for hospitals is the acute shortage of skilled workforce. Healthcare, at this point, is largely considered a service industry where treatment success is deemed important by patients, but they demand more. At every point of contact, they want seamless, smooth experiences and more value for money. This is possible only when everything in a hospital works in harmony - from admission to discharge.

This needs a highly trained and motivated workforce that is undergoing constant reskilling and upskilling to meet the changing rising standards of service in the industry.



 $Figure \ 1) \ A \ Complex \ Set \ Of \ Factors \ Affecting \ Healthcare \ Industry's \ Ability \ To \ Thrive \ In \ Disruption$

Let's understand the paradigm of factors that are coming in the way of exponential growth for hospitals and other healthcare organisations.



1. Growing Talent Gap: Shortfall In Qualified Nurses & Caregivers

The industry is acutely aware of the shortfall of nurses, doctors and allied healthcare professionals. The need for qualified nurses was growing even before the global pandemic. But post COVID-19, healthcare administrators have really struggled to fill the demand. And the shortage is only expected to grow. Competing to recruit and retain top nurses and fill empty positions has been and will continue to be a major challenge for healthcare leaders. And one of the biggest limiting factors to expansion.



2. Strapped For Time: Busy Specialists With Little Time To Balance Work & Learning

It's no secret that healthcare specialists are busy. But training them is crucial to profitability of the hospital. However, it's the lack of effective tools that can help the team access training at their convenience which cuts down on the organisation's ability to stand out from competition, in terms of offering higher quality of caregiving and service.



3. Evolving Skills Needed From Doctors: Constant Need For Doctors To Upskill Based On Technological Advancements

A hospital is built on the reputation of its doctors. This is why doctors need to learn how to leverage technological developments, to cater to patients better. Whether it is working with Al tools to improve their diagnosis or in general utilising digital tools to help them manage their work, doctors need to continuously upskill, learn and relearn to stay on top of their chosen field. But many healthcare organisations aren't able to properly equip their doctors with the right training at the right time and that has consequences on the bottomline.



4. Rising Customer Expectations:Skyrocketing Healthcare Costs Mean Patients Expect Better Outcomes

Right from the security to the reception - everyone interfacing with the patient needs to be trained and retrained to deliver in their roles. As their failure to meet customer / patient expectations means in future, in case of a medical event, the patient will likely seek care with a competing organisation.





5. Need For Multispecialisation: Unforeseen Healthcare Crises Require More Generalist-Specialist Hybrids

Let's take Covid as an example. When the pandemic hit, most hospital staff were underprepared because, in the traditional structure, they specialised in a specific area. For e.g., there were nurses who specialised in OPD and were only aware of how to manage a ward, an ICU or an OT. They were not trained to disperse their duties in the event of an international health crisis and care for highly infectious patients. They weren't familiar with how to properly implement isolation policies, communicate with families, provide health education on prevention against coronavirus and handle varying patient symptoms in the ongoing emergency.

Hospitals now realise how important it is to have mechanisms in place to upskill, cross-train and reskill workers in case of the emergence of other healthcare crises of similar scale. Every worker will need hybrid skills so they can jump into a crisis with confidence. This will enable the hospital to pull their entire staff into the service of one cause, to manage the big unforeseen medical events with resiliency, knowhow and understanding that's required to deal with such difficult situations.



6. Complexity In Compliance: Varying Global Healthcare Rules & Regulations make It Tough To Train Workers

The US and EU have different compliance requirements for the healthcare industry. For example, the US has the Health Insurance Portability and Accountability Act (HIPAA), which protects the privacy of patients' health information, and similarly, the EU has the General Data Protection Regulation (GDPR).

Both HIPAA and GDPR have complex requirements that healthcare providers must comply with. For example, HIPAA necessitates healthcare providers to implement safeguards to protect patients' health information from unauthorized access, use, or disclosure. GDPR mandates healthcare providers to obtain consent from individuals before collecting or processing their personal data.

In addition to these general privacy requirements, there are also specific compliance requirements for different types of healthcare providers and services. For example, the US has the Clinical Laboratory Improvement Amendments (CLIA), which sets standards for clinical laboratories. The EU has the Medical Device Regulation (MDR), which sets standards for medical devices.

As many of these regulations undergo routine changes, the industry is under constant pressure to keep up with the changes. Amidst this tightrope walk comes newer standards and reporting needs. All of which must be taught to healthcare workers and administrators – complete with periodic knowledge updates. The cost of missing out on these guidelines is huge and it has direct implications on profitability.

Due to all these factors mentioned above and more, training of the workforce must be prioritised as it has an immediate positive impact on the healthcare industry. A trained, knowledgeable workforce can help hospitals survive and thrive through the biggest changes and disruptions.



PART II: LESSONS TO BE LEARNT FROM THE GOVERNMENT



How US And EU Governments Used Newer Technology To Equip Healthcare Professionals At Scale To Tackle The Disruption Caused By The Pandemic

To understand the scale of the labour and skills gap in the healthcare sector, here are some startling facts. The density of professionally active physicians in patient care per 1,000 people in the US was 2.61 physicians in 2018, and in the EU, the density was 3.8, equally abysmal.

From January 2020 to May 2021, data provided to the World Health Organization (WHO) indicated that there were

approximately 3.45 million COVID-19-related fatalities. During this period, an alarming statistic revealed that about 115,000 healthcare workers succumbed to COVID-19. Among these healthcare professionals, one in three experienced anxiety and depression, while as many as half of them faced burnout. Furthermore, the WHO has projected a potential deficit of 10 million healthcare workers by 2030, primarily affecting low- and lower-middle-income countries.

Physicians per Capita:





Note: Data for Japan and Sweden are from 2020. Data from Australia, Canada, and the United Kingdom are estimated

Source: KFF analysis of OECD data | Get the data | PNG

Pelerson. KFF

Health System Tracker

Figure 2) Snapshot of Number of Physicians per 1,000 Persons in the US and EU (Year 2021)

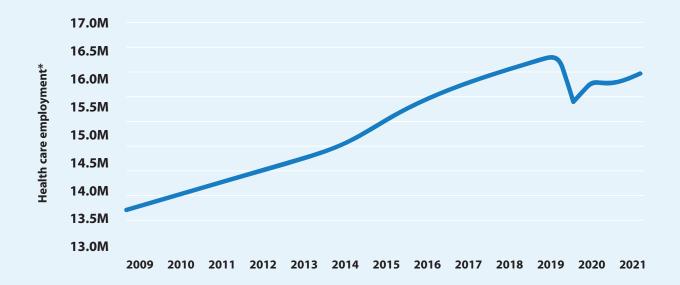
As seen below, there was a sharp drop in employment of healthcare workers in 2019, and this dearth of nurses, doctors, caregivers, allied healthcare professionals remained unchanged when the global healthcare system was overwhelmed by COVID-19. The question was how could the government provide technical healthcare education fast to build a stronger pipeline of allied healthcare professionals, within a short span of time?

The answer was rapidly scalable technology and online tools to bring more people into the healthcare system and equip them to dispense high quality care with highly specialised knowledge of the disease. It's essential to explore how countries in the European Union (EU) and the United States addressed this issue through the use of technology and online resources.

In the EU, the shortage of qualified healthcare workers was a pressing concern even before the pandemic. Each member state faced unique challenges in terms of the number and distribution of healthcare professionals, and the pandemic magnified these disparities and underscored the need for rapid skill development in the healthcare sector.

Governments in the EU took various measures to harness technology and online tools to bolster their healthcare workforce. One notable example is the European Union's launch of the EU Skills Agenda for Healthcare, which aims to upskill and reskill healthcare workers to meet the evolving needs of the healthcare system. The agenda includes a number of initiatives, such as the development of online training modules and the creation of a European Health Workforce Observatory to track and forecast labor needs.

Healthcare employment has recovered only half of pandemic losses



Source: Centers for Medicare & Medcaid Services; U.S. Bureau of Labor Statistics

*Seasonally adjusted

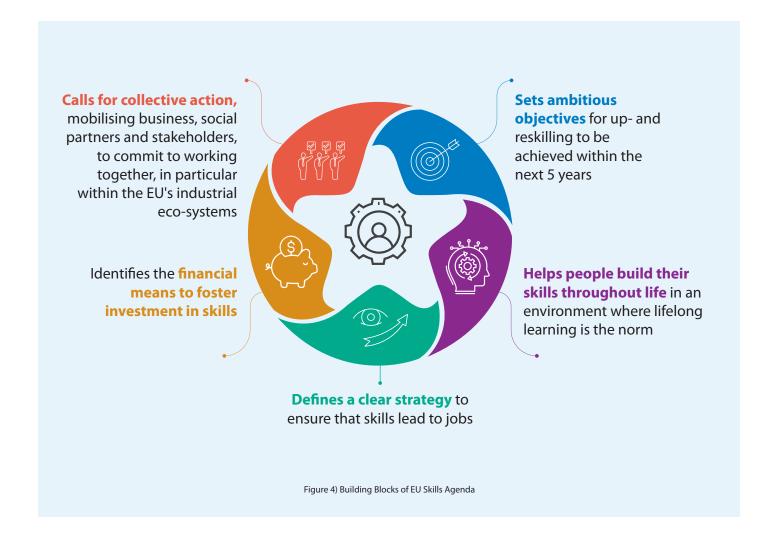
Figure 3) Snapshot of Healthcare Employment from 2009 to 2021

- The UK government launched the Health and Social Care Skills Strategy, which aimed to train and recruit an additional 250,000 healthcare workers by 2024. The strategy included a number of initiatives, such as funding for apprenticeships and the creation of a new Institute for Health and Social Care Education and Training.
- The French government launched the Ségur de la Santé, a
 €19 billion investment plan to improve the healthcare system.
 The plan includes funding for training and recruitment of healthcare workers.

In the United States, the situation mirrored the global healthcare workforce crisis. Prior to the pandemic, the country had disparities in healthcare worker density, and to address this gap, the U.S. government, in collaboration with private healthcare organizations, rolled out online education and training programs. They covered a range of roles, from frontline healthcare workers to laboratory technicians and support staff..

- The US Department of Health and Human Services launched the Healthcare Workforce Diversity Training and Recruitment Initiative, which aims to increase the diversity of the healthcare workforce. The initiative provides funding to healthcare organizations to develop and implement diversity training programs and to recruit and retain diverse healthcare workers.
- The US Department of Veterans Affairs launched the Veterans Health Administration (VHA) Workforce Innovation Initiative, which aims to improve the recruitment, retention, and development of the VHA workforce. The initiative includes a number of initiatives, such as funding for tuition assistance and the creation of a new VHA Leadership Academy.

The success of these initiatives in the EU and the USA shows how technology and online training can be effectively utilized to address workforce challenges, both in the public and private healthcare sectors. These experiences demonstrate the adaptability of healthcare systems in times of crisis and the potential for leveraging technology to prepare a skilled healthcare workforce to meet future challenges.



PART III: HOW TO CREATE A FUTURE-READY WORKFORCE WITH TECHNOLOGY



What Kind Of A Digital Platform Can Help Hospitals Transform Their Workforce?

Before hospitals and other healthcare providers invest in digital platforms and long-term digital transformation, they are asking some important questions that need to be answered. For e.g., how can a shift towards continuous digital and tech-led learning be accomplished in ways that are economical, future-proof, scalable and flexible? Their concerns include: How can the system encourage employee participation and promote the retention of knowledge? How can staff progress be tracked and how can management measure the ROI?

There's a couple of in-built features the ideal platform would have, to justify the spendings. Some are as follows:



1. Making Learning Accessible: On-Demand, Any Time, Anywhere, Any Device

Given that paucity of time is the main constraint that's preventing healthcare professionals from levelling up in terms of their skills and knowledge, it makes sense to have a platform that takes down all barriers and creates frictionless journeys to accommodate unique learning styles of each employee, taking them further or deeper into the subject matter.



2. Mapping Between The Skills And The **Roles:**

Building Personalised Learning Journeys For Each Employee

Each skill required by healthcare workers can be grouped in a logical manner and aligned to a particular role. The platform should then deliver the learning specific to the role by bringing in content specific to the role too, associating assessments with those and creating a tracking mechanism to measure progress.



3. Doing Assessments Differently: **Bridging Gaps Between Theory And Application**

The platform should run assessments in a way where each of the role holders can be provided with unique scenario-based questions and they can be assessed on the basis of their live response to these scenarios. Their recorded responses can then be shared with management and leadership so their fitness for the new role can be determined with accuracy. There should be playground modes available on the platform which incorporate different simulated settings to help bridge the gap between theoretical understanding and application of the learning.

In general, the platform should make learning and assessments fun, facilitate engagement with lessons through gamification and support proven modern pedagogical methods.

It should build out skill pathways to help healthcare professionals find the right modules for their current roles and their future ambitions. It should make learning and testing matter by rewarding employees for fulfilling their L&D commitments beyond issuing certifications. Through unique push and pull mechanisms to keep healthcare workers in a learning mode and giving managers their performance overviews.



4. Managing Patient Knowledge Better: Allowing For Sharing Of Information On Day-To-Day Cases

Whether it's tricky patient cases, business-as-usual working scenarios or any triage cases, the platform can make it easy to document every step and share outcomes of different treatment modalities amongst the workforces. Basically, the digital platform can integrate into the hospital's existing Electronic Medical Records tech infrastructure and allow the relevant working professionals to quickly access the patient's EMR using a mobile or a computer. Some benefits of this would be:

- (A) With accurate, up-to-date, and complete information about patients at the point of care, healthcare providers can make more informed decisions about patient care and reduce the risk of medical errors.
- (B) Through quick access to patient records for more coordinated, efficient care, communication between healthcare providers can be improved which reduces the need for patients to repeat tests or procedures.
- (C) By securely sharing electronic information with patients and other clinicians, patients will be empowered to take a more active role in their healthcare and improve the coordination of care between different providers.
- (D) Doctors can more effectively diagnose patients, reduce medical errors, and provide safer care. For e.g., the platform can be used to identify potential drug interactions and allergies.
- (E) The platform can enable safer, more reliable prescribing and help to promote legible, complete documentation and accurate, streamlined coding and billing. This can help to improve the quality of care and reduce the cost of care.
- (F) The platform can help providers to improve productivity and work-life balance. For e.g., it can automate many tasks, such as scheduling appointments and sending reminders to patients.
- (G) Through the platform, hospitals can enable providers to improve efficiency and meet their business goals. For e.g., the platform can be used to track key performance indicators and identify areas for improvement.
- (H) The digital platform can reduce costs through decreased paperwork, improved safety, reduced duplication of testing, and improved health. For e.g., it can help to reduce the need for patients to repeat tests and procedures.





5. Managing Patients Better:Regular Information Dissemination To Patient Made Easier

The platform can enable hospitals to develop a stronger bond with the patient through the creation of an additional communication touchpoint that constantly educates, updates and informs them regarding the problem they are being treated for. For e.g., sharing information regarding diabetes and how to manage it. For new moms, right from the pregnancy stage to early motherhood, they can be guided throughout their maternity journey till the child turns 8 or 10. Moms will feel supported in their journey and will feel compelled to come back to the hospital, every time there is a health issue.



6. Virtual Walkthrough Of The Hospitals / Health Centers:

Helping Patients & Your Workforce Understand The Layout & Features Of The Facility

Finding the right hospital can be a challenge, and many people spend hours researching different options online. A virtual tour can help people learn more about your hospital and its facilities, and encourage them to choose your hospital for their healthcare needs.

Virtual tours allow viewers to navigate through different areas of the hospital at their own pace, and click on hotspots to learn more about specific features. For e.g., someone who is interested in learning more about the hospital's operating facilities can click on the "Surgery" hotspot to see the operating rooms and learn about the equipment and procedures that are used.

Virtual tours can also be used to educate viewers about the hospital's layout and features. For e.g., you can use a virtual tour to show viewers where the main entrance is, how to get to the different departments, and what amenities are available to patients and visitors.

You can even integrate live video into your virtual tour to give viewers a real-time look at the hospital. This can be a great way to show off your hospital's state-of-the-art facilities and friendly staff.



PART IV: MAKING THE SHIFT: HEALTHCARE PROFESSIONAL TRAINING WITH INFOSYS WINGSPAN

Meeting The Urgency To Transform Learning In Hospitals For Nurses, Doctors, Managers & Administrators

In the realm of patient care, management, procedures, documentation, and community service, the bedrock of our healthcare system undeniably rests on the shoulders of its workforce. And so what lies ahead isn't just an option but an imperative – a relentless commitment to their growth, their dreams, and an unyielding culture of constant improvement. This commitment isn't merely about choice; it's a moral duty. It's the essence of fortitude that will empower the healthcare sector to stand firm in the face of any disruptions that come our way.

The seismic challenges brought on by the pandemic have sounded a clarion call for a revolutionary shift in the workplace culture within hospitals. Prioritizing upskilling, reskilling, and a relentless pursuit of knowledge for our healthcare workforce is not a mere luxury; it's an urgency that can afford no delay. Our government's response to the pandemic has underscored the revolutionary impact of a digital-led strategy.

Now, envision the huge advantages awaiting hospitals that tread the same path. Imagine an online platform of unparalleled sophistication, boasting a seamless, intuitive design. A platform that harnesses the cutting-edge marvels of Al and is firmly anchored in the bedrock of social learning principles. It doesn't just adapt; it personalizes the learning journey for each user, unlocking their fullest potential.

Welcome to Infosys Wingspan - the meticulously designed platform crafted to cater to your every need. With its modular architecture, it adapts effortlessly to match your hospital's distinct requirements. Its open design allows for the effortless integration of third-party solutions and content, boosting its adaptability to new heights. As the all-encompassing solution for skill development and assessment, it eliminates the chaotic juggling of multiple specialized vendors, streamlining talent deployment and budget management.

Dive into Figure 5 to unveil the panoramic view of the remarkable benefits Infosys Wingspan brings to the table.

THE UNDERLYING LEARNING & TESTING PRINCIPLES DRIVING INFOSYS WINGSPAN

o°o, Make It Fun / Make It Make It Make It Gamified **Convenient** Relevant Matter Anytime, Anywhere, Personalised Learning Blended Learning Digital Skill Tags, with Al & Manager Any Device Learning Models with Incentives and New Recommendations Knowledge/Concept Opportunities Online, Offline Graphs Accessibility and Byte sized, Full sized Linkage to HR Systems Download options Learning Social/Cohort learning with Heartbeat with "follow/share" Telemetry Instructor Led, Content Curation & features Assisted, Self-Paced Integration Learning Effectiveness Adaptive Learning with Democratised Aggregation and Learnability (Internal/External) Learning Adaptive Assessments Measures **Guided Learning Paths** Dynamic Skill / Role Gamified Badges, Data Driven ROI Framework & Contests, Playgrounds, Insights and Inputs to Assessments Quiz, Challenges **Business Leaders**

Figure 5) How Infosys Wingspan Fits In With The Needs Of Healthcare Workers

But it doesn't stop there; this dynamic platform doesn't just elevate your workforce's skills. It has a cascading effect on customer service, raising the patient experience to new levels at every juncture. This, in turn, empowers healthcare providers to mirror their unwavering commitment to excellence in every aspect, including their billing practices.

In these extraordinary times, the call to action is not just clear – it's an awakening call! It's a summons to healthcare professionals, hospital CEOs, and leaders throughout the sector to make a forceful, unwavering choice. Embrace Infosys Wingspan now; the urgency is tangible, the transformation is at your doorstep, and the future of healthcare beckons with allure that is irresistible. Infosys Wingspan has been conceived to be a complete LXP solution for the healthcare sector. Curious about how Infosys Wingspan can help you amplify your human capital?

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