

# Effective Workforce Transformation

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# The Future of Healthcare Workforce Development and Management

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The healthcare workforce crisis is a global reality. The healthcare workforce is experiencing a shortage in staff and expertise, impacting staff wellbeing and satisfaction. Fear of exposure to infection and transmission, staff shortages, inadequate personal protective equipment, and work stress has added an extra burden to an already stressful lifestyle resulting in increased burnout rate and suicide. The overall environment of healthcare work has changed, and Siemens Healthineers enhanced their education and workforce offerings to ensure the challenges are met with solutions.



## Key Points

- It is projected that there will be a shortfall of [15 million health workers by 2030](#), mostly in low- and lower-middle-income countries.
- It is estimated that there will be [40% more people](#) over 60 years by 2030.
- [40% of US technologists](#) report symptoms of burnout.
- The 2021 World Health Organization (WHO) annual health report recorded 7,00,000 deaths by suicide globally (Awan et al. 2022).
- [61% of patients continue their search for a healthcare provider to find an earlier appointment.](#)
- Healthcare faces several workforce challenges, including limited staff, limited skills and competencies, changing roles, tasks and expectations on work-life balance, excessive workload impacting staff retention and satisfaction and keeping up with evolving technology.

Today's workforce challenge is larger than expected, impacting overall performance with decreased revenue and financial and operational challenges. [Healthcare workers lack the skills and expertise as technology changes and increase in augmentation and automation.](#) This contributes to reduced confidence, burnout and decreased mental health, which can cause them to leave the institution and suffer from illness or even death. Lack of skilled staff or resources poses pressure on the patient, and it is seen in reduced patient satisfaction rates, increased number of deaths and even an increase in

violent attacks against medical professionals (Boyle 2022). Healthcare workers are key to providing patient care, so this crisis is top of mind for healthcare institution leaders. Three of the [five key actions](#) to close the gaps within the workforce are building skills, hiring, and contracting, and 58% of organisations state the skills gaps as a higher priority since the pandemic. With approximately 56% of healthcare providers' expenses going into personnel, this is their largest investment (LaPointe 2018).



Image Credit: Siemens Healthineers

[Siemens Healthineers](#) offers services and solutions that enable healthcare workers to excel. These solutions allow healthcare organisations to create a sustainable workforce, manage their staff better with smart workforce management tools, address staff shortages, integrate hybrid learning, and ensure targeted education and coaching. This results in less stress and pressure for healthcare workers, increased confidence in their skills, and more flexibility in scheduling, leading to greater staff satisfaction, productivity, improved operational performance and outcomes, as well as revenue.

An important social trend that became prominent during the COVID-19 pandemic is the use of remote working/learning. Remote modes of higher education will continue to evolve in a post-pandemic future and will require innovative technologies and approaches to addressing the different needs of learners and accelerated adoption of new learning technologies and tools. Education delivery models will continue to evolve, and hybrid learning will be widely adopted. To remain ahead of the curve and deliver meaningful education to learners, it is essential to use innovative technologies like virtual, augmented and extended reality.

Siemens Healthineers hybrid learning approach offers a lifelong learning strategy to ensure access to needed education, skills and experts, with optimised processes and digitally enabled solutions. These solutions allow healthcare workers to:

- Improve and gain new knowledge and skills when and how they need to
- Learn from experts on demand
- Improve operations, workflow and processes
- Improve turnaround times with patient scheduling and results
- Build a learning health system

Some of Siemens Healthineers [innovative management, education and coaching, and staffing solutions](#) include:

### **Workforce Management**

#### **PEPconnections**

PEPconnections supports a clinical institution's performance growth with integrated workforce education management and administration features. It can help organisations manage the education of teams or departments and personalise the education experience of individual employees by combining education designed by Siemens Healthineers, the healthcare institution, or independent providers.

### **Education and Coaching**

#### **PEPconnect**

PEPconnect is a complete personalised cloud-based education and performance management experience designed for healthcare professionals. It offers education and real-time support in Medical Imaging and Therapy, Laboratory

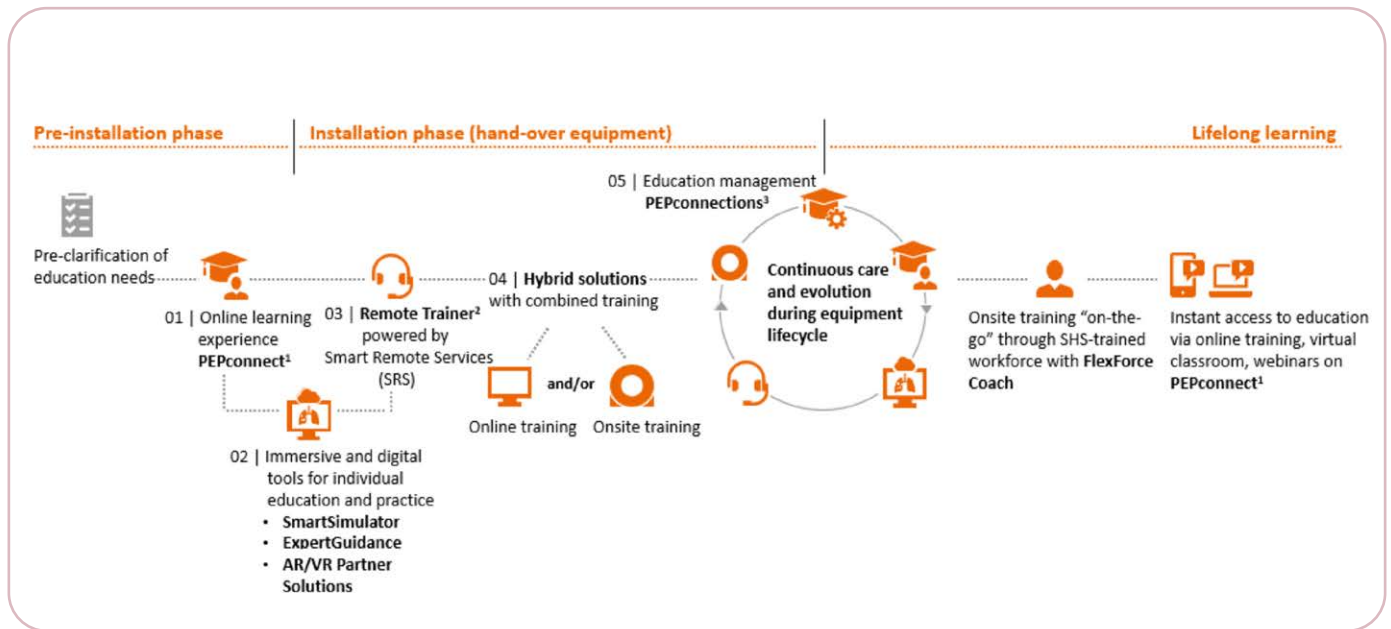


Image Credit: Siemens Healthineers

Diagnostics, POC, and other healthcare-related topics via e-learning, webinars, job aids, and more. Learners can access the material anytime, anywhere, and on any device and can access more than 19,000 in-vivo and in-vitro and over healthcare-related learning activities, as well as Advanced Digital Education Subscriptions. Learners can benefit from the online network of professionals and connect, communicate, and be part of social learning groups whilst acquiring the certification they need.

### SmartSimulator

SmartSimulator allows staff training through a simulated version of a medical device to reduce ramp-up times for new devices and workflows. It enhances confidence by providing staff with extensive training possibilities using the equipment and the latest imaging applications. SmartSimulator will help healthcare organisations enhance the confidence of staff by providing them with hands-on experience using a virtual medical device to improve scanning efficiency. It can also boost performance by leveraging innovative technology for better scan practice and scan protocol optimisation on simulated, cloud-based medical device interfaces.

### ExpertGuidance

ExpertGuidance is a mobile Augmented Reality training application that provides guidance on basic functionalities, step-by-step instructions on equipment use, and complex clinical workflows. The instructions can be accessed anytime and anywhere on a mobile device.

### AR/VR Partner Solutions

AR and VR Partner Solutions from Siemens Healthineers are

easily accessible and applicable for various clinical fields. These learning tools go beyond equipment usage - from instrumentation and procedure training to gaming simulations in different emergency situations, interactive radiation safety simulation based on original 3D models and virtual training in x-ray handling.

### FlexForce Coach

FlexForce Coach is a comprehensive staff development and performance consulting solution provided by experts from Siemens Healthineers. It drives change management and enables standardisation of equipment protocols across multiple shifts and locations. A FlexForce Coach also provides equipment and applications training to your radiographers, improving the quality and efficiency of work of an entire department. Working with a FlexForce Coach also increases your attractiveness as an employer through a reputation for taking better care of your workforce. This helps you retain talent and attract a greater number and higher quality applicants.

### Staffing

#### FlexForce Tech

FlexForce Tech is a workforce solution that provides highly skilled radiographers with Original Equipment Manufacturer training and support. These radiographers have in-depth knowledge of equipment and applications so that your equipment from Siemens Healthineers can be operated at a high level of quality and productivity from week one. This helps you to reduce your staff shortages while increasing the total number of procedures performed and leading to improved outcomes – both financial and clinical as well as improved



Image Credit: Siemens Healthineers

access to care. The minimal ramp-up times combined with flexible contract terms enable you to adapt your headcount to your operational needs.

### Partner Testimonials and Feedback on Siemens Education and Workforce Solutions

*Danielle Coleman*

*Imaging Manager, WakeMed Cary Hospital, North Carolina, USA*

“At WakeMed, we needed our technologists to be able to scan stroke; we needed them to be able to perform procedures; we needed them to be able to work with trauma patients, all at a very quick pace to be trained and up and running very quickly. Working with Alex, a FlexForce technologist for Siemens Healthineers, has given us confidence in working with their workforce solutions. We got a technologist who we did not have to do any training to get them up and running. Alex was reliable and patient-friendly; he was always smiling and taking care of his co-workers. Overall, I think this was a very successful relationship. We are very glad to have him”.

*Prof Louise Rainford*

*Associate Dean for Radiography, UCD Health Science Center, Dublin, Ireland*

“It is important to engage students, and they expect certain things from educational programmes. We also need to meet the needs of different types of learners, as students learn

in different ways. With a mix of lab-based, lecture-based, and VR-based material, you are more likely to be successful across a broad spectrum of learners than if you only use one or two ways of teaching”.

*Prof Franz Fellner*

*Dean of Studies/Faculty of Medicine, JKU Linz, Linz, Austria*

“Computer graphics allow learners to enlarge graphics, rotate them and move to a complicated three-dimensional anatomical model. This makes it easier to understand complex three-dimensional anatomy. The multiplayer reconstruction we recently installed is a sensational leap forward, and this is only the beginning. It has incredible potential”.

*Somjit Jinapuk*

*Head of the Laboratory Department, Ramkhamhaeng Hospital, Bangkok, Thailand*

“PEPconnect helps me manage the training programme of all our technologists efficiently. It improves our competitiveness by ensuring that all our technologists, including newcomers, have been effectively trained. There is standardisation of knowledge which will help to improve patient outcomes. It also enables me to learn with my friends and colleagues and become experts together”.

*Prof Michael Scholz*

*Anatomical Institute Friedrich-Alexander University Erlangen*

“The quality of the visualisation of structures and tissues with Cinematic Rendering is amazing. It allows for lively lectures and intensifies the understanding of anatomical structures and spatial characteristics through photo-realistic visualisation. I am totally convinced that this application must and will find its way into anatomy education in the near future”.

*Erica Trevisan, Radiographer*

*Santa Maria della Misericordia, Udine, Friuli Venezia Giulia, Italy*

“The virtual training provided us with operational effectiveness during the COVID-19 outbreak. All the team was able to attend and join remotely. Thanks to the SmartSimulator, we could learn the user interface and the acquisition parameters and simulate the operativity of the scanner CT SOMATOM go. Top without any pressure. Despite the lack of previous knowledge about Siemens technologies, we’ve been able to scan routine examinations before on-site training could commence. Thanks to the blended learning, the training was faster and easier”.

### Conclusion

Siemens Healthineers supports an excellent sustainable workforce with access to workforce management and development solutions in forms of education, staffing, and management that are easy, scalable, smart and of high-quality standards,



so healthcare providers can improve staff satisfaction, productivity, patient outcomes and revenue.

### Disclaimer

The products/features and/or service offerings (here mentioned) are not commercially available in all countries and/or for all modalities. If the services are not marketed in countries due to regulatory or other reasons, the service offering cannot be guaranteed. Please contact your local Siemens Healthineers organisation for further details. For

PEPconnections, subscription is required. Availability of subscription depends on country.

For Customer Quotes:

The results by customers of Siemens Healthineers described herein are based on results that were achieved in the customer's unique setting. Since there is no "typical" hospital and many variables exist (e.g., hospital size, case mix, level of IT adoption) there can be no guarantee that other customers will achieve the same results. ■

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## REFERENCES

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