

Transforming care delivery

Increase workforce productivity

Enabling of team-based care by removing routine work and fostering collaboration helps increase workforce productivity

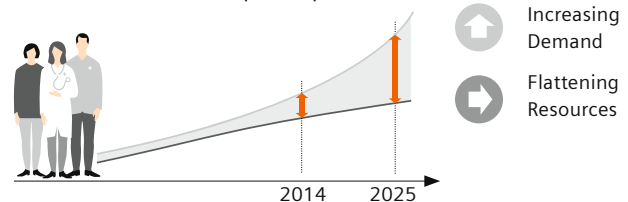
siemens-healthineers.com/workforce-productivity



U.S. hospitals are increasingly understaffed and therefore at risk of failing to serve the demands of the population

In the U.S., healthcare industries and their associated occupations are expected to account for a large share of new jobs projected through 2025, as the aging population continues to drive demand for healthcare services.¹ Already in a 2014 survey, 78% of hospital executives reported an average vacancy rate of nearly 18% for physicians, 17% for nurses, 15% for nurse practitioners and physician assistants, and 13% for allied healthcare professionals.² The gap between workforce demand and supply is projected to widen to vacancy

rates of up to 30% on average in 2025, as the labor force will grow slowly and become older and more diverse.³ The aging population is expected to result in a decline in overall labor force participation.



One way to identify opportunities for reducing workload is a value-added flow analysis that categorizes staff time and activities into three clusters

Lean and Six Sigma are the most widely used process improvement methods within industrial sectors. The healthcare industry can still tap into enormous potential by using these two methods in combination with “digitalization” to simultaneously streamline processes

and improve quality. Value-added flow analysis, one of the tools provided by the methods, is a way of gaining transparency by categorizing activities into three clusters and measuring the time needed per activity.



Waste



These activities do not add any value to the patient. They are unnecessary and could be eliminated immediately without any impact on the patient outcome. Waste includes defects, unwanted motion, patient transportation and waiting.

Value-added activities



These activities are devoted to patient care and are characterized by three criteria:

- They change the patient's state.
- They are performed correctly the first time.
- They are perceived as valuable by the patient, who would ultimately be willing to pay for them.

Necessary activities without value



These activities do not provide a direct value to the patient. They are geared toward enabling coordinated, high-quality patient care and include patient registration, device maintenance and compliance to regulating requirements, e.g. documentation.

¹ Bureau of Labor Statistics. *Employment Projections and Occupational Outlook Handbook*, October 2017

² *Healthcare Staff Shortages? AMN Healthcare* <https://www.amnhealthcare.com/industry-research/2147484673/1033/> viewed Jan. 29, 2019

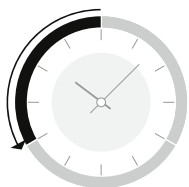
³ *Demand for Healthcare Workers Will Outpace Supply by 2025: An Analysis of the US Healthcare Labor Market*, Mercer, 2017

Doing the right things and doing things right is at the core of workforce productivity

One big lever is identifying and removing wasteful activities. Automating or delegating non-value-adding – but necessary – tasks allows staff to work at the top of their license. Likewise, cultivating the professional

growth of every team member helps maximize value. Eliminating waste and reducing non-value-adding activities in conjunction with enabling individual growth will ultimately improve workforce productivity.

Eliminate waste



- Identify and eliminate errors, that might delay downstream activities or require additional, corrective activities.
- Analyze operations and create a working environment that avoids time being wasted on unnecessary activities, such as motion, transportation, and waiting.
- Manage complexity and variety to avoid losing time on orientation and familiarization.

Portfolio examples

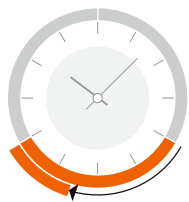


Performance Management and Workflow Consulting are tailored, data based services, incl. digital twin simulation supporting sustainable lean transformation.



Siemens Healthineers User Interface and experience¹ philosophy intended to allow users to switch more easily between Siemens Healthineers products and services.

Reduce necessary activities without value



- Move these types of activities away from employees by automating physical and mental tasks.
- Share seamlessly patient information and delegate activities and responsibility within the care team. This will allow employees to work at the top of their license.

Portfolio examples



Aptio® Automation & Atellica® Solution² automate pre- and post-analytics and reduce staff interaction for sample management, daily quality control, and maintenance.



Value Partnerships around technology management oversee equipment of all medical device-related matters throughout the entire contract lifetime, reducing operational complexity.

Ensure individual growth



- Enable your workforce to bring the most value to patients by encouraging lifelong learning that can be done anytime, anywhere and on any device.
- Augment human labor with AI. This can improve attention and guide work.
- Connect employees to make expertise available where and when it is needed.

Portfolio examples



PEPconnect & PEPconnections³ provide online access to learning activities, plus workforce education management and administration.



AI-Rad Companion⁴ identifies and measures organs and lesions on chest CT images, and automatically generates a quantitative report.

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¹ Red Dot Award 2018 winner interface design.

² The products/features /services (here mentioned) are not commercially available in all countries. Due to regulatory reasons their future availability cannot be guaranteed.

³ Subscription required. Availability of subscription depends on country.

⁴ AI-Rad Companion is 510(k) pending, and not yet commercially available in the United States and other countries.