

Case study: Worcestershire Acute Hospitals, United Kingdom

Improve patient and staff satisfaction by optimizing radiology services

Secure decades of efficiency by partnering to maximize productivity and optimize workflows

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Executive summary

Twenty years into a Value Partnership with Siemens Healthineers, Worcestershire Acute Hospitals continue to reap the benefits.

When the new building for the Worcestershire Royal Hospital was developed in 1999, the Worcestershire Acute Hospitals NHS Trust engaged with Siemens Healthineers in a Value Partnership to collaborate and provide Technology Management services. This private finance initiative contract covers approximately 27,000 assets and runs until 2031. From the start, it has included the supply,

replacement, and maintenance of all medical imaging technology. It also includes a comprehensive Performance Improvement engagement with Siemens Healthineers Consulting. Over time, this agreement has come to have a far-reaching positive impact throughout the organization, marked by the collaboration and focused on the creation of long-term value.

The Value Partnership has delivered long-term improvements:



-35% of CT did-not-attend rate



97% of cancer patients scheduled within target



-58% vetting time



Reduced hand-overs for booking



Optimized use of resources



Improved and standardized process from referral to examination

The customer

The Worcestershire Acute Hospitals: a family of three institutions that have long faced pressure to make the most of their resources.

The Worcestershire Acute Hospitals include Alexandra Hospital, Kidderminster Hospital and Treatment Centre, and Worcestershire Royal Hospital. Together, they are tasked with meeting the demands of a growing catchment area in need of an expanding range of services. Making the most of the resources they have is essential. Key objectives include reducing duplication of services where possible and centralizing specialist services to ensure that they are appropriately and efficiently staffed.

About Worcestershire Acute Hospitals NHS Trust:

- Facilities: Alexandra Hospital, Kidderminster Hospital and Treatment Centre, and Worcestershire Royal Hospital
- Population served: > 800,000 people in Worcestershire and beyond
- About 153,000 inpatients and 641,500 outpatients per year
- Employment: Almost 6,000

The challenge

Working efficiently across three sites requires aligning three cultures and three sets of practices – in addition to effectively managing technology.

Throughout the National Health Service, there is a trend towards larger catchment areas. Dr. Jeremy Thomas, Chair of the Investment Committee of the trust, says: "In Worcestershire, there used to be three distinct general hospitals which all supplied a full range of services. Over time, the role of these hospitals is changing – and reconfiguration is not just happening here, but across the National Health Service of the United Kingdom. A growing population and rising demand on services means we have to make sure we do the best we can with the resources available. We are, for example, reducing duplication and centralizing specialist services so we can ensure they are safely and appropriately staffed with the right level of expertise."

As one would expect, the three member institutions of the Worcestershire Acute Hospitals maintained three separate cultures and different ways of working. Numerous

variations in radiology practices had developed. One thing the hospitals did share was a strong desire to improve workflow efficiency. Another was a level of frustration among staff and patients dealing with delays and complications. Change was necessary, but the task seemed overwhelming, particularly given the fact that multiple stakeholders were involved, each with unique goals. Specifically, NHS finance directors wanted more certainty in their budgets. Radiology managers hoped for a guarantee that their technology would be replaced regularly and continuity of service would be maintained. Staff sought an improved working environment and increased teamwork. In response, the Worcestershire Acute Hospitals NHS Trust decided to partner with an outside resource for the technology management and process optimization of its radiology department. This was the beginning of their Value Partnership with Siemens Healthineers.

The solution

Introducing flexibility and budgetary certainty to safeguard the trust while also enabling change.

When decision-makers came together in 1999 to discuss the strategic transformation for the then-new hospital complex of Worcestershire Royal Hospital, it soon became obvious that flexibility would be a key component to success – flexibility regarding the types of modalities, flexibility to respond to emerging clinical needs, flexibility as to time of replacement, and even flexibility as to geography.

The trust also needed to achieve dependable accuracy in its financial planning and operational processes. For example, fixed fees would be preferable to the occasional lump sums typically required for investments and repairs. Furthermore, in order to provide the highest degree of the

medical services that constitute the trust's core business, the technology had to be up and running at capacity as much as possible.

"The trust was looking for a large partner with a strong negotiating position with equipment suppliers," remembers Dr. Thomas. "We considered an established manufacturing base important due to the potential for better product prices stemming from larger volumes and negotiating power. The expertise of a reputable vendor was very much welcome."

The solution was a Value Partnership with Siemens Healthineers that spans 32 years and covers about 27,000 assets for the trust. It includes the supply, replacement, and maintenance of all medical imaging technology.

Collaborating on solutions that deliver clinical, operational, and financial benefits.

In a critical move for future success, the trust and Siemens Healthineers expanded the scope of their partnership to include a three-year Performance Improvement program with Siemens Healthineers Consulting. Siemens Healthineers and trust representatives jointly analyze, define, implement, and monitor performance, processes, and procedures on an ongoing basis. The team began this Operations Optimization program by analyzing and benchmarking the existing radiology service. This included mapping the patient journey and workflow challenges. Together, the team next modelled the future value stream that they envisioned and identified and debated opportunities for improvement. Finally, future requirements and key performance indicators were decided.

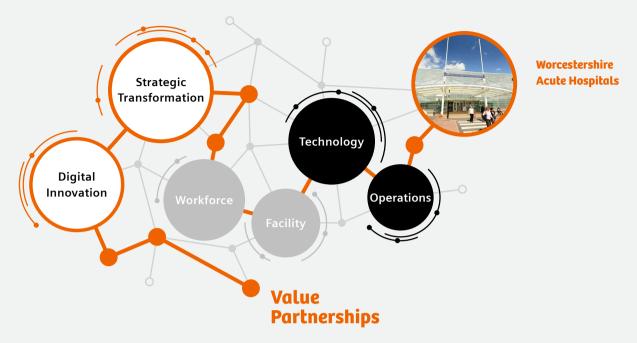
A series of Rapid Improvement Events (RIEs) was scheduled to identify specific measures for improvement, foster team spirit, align team members in a commitment to moving forward, and initiate the implementation of change. Each RIE took just five days.

Throughout the Operations Improvement process the trust team internalized these key messages:

- We are all taking control
- We are all involved
- We are proactive, not reactive
- We deliver transformation
- We can make a difference



Customized to Worcestershire Acute Hospitals's unique and specific needs, the Value Partnership helped realize their strategic goals, maximize opportunities, and address the demands of their stakeholders.



The benefits

Through a Value Partnership the Worcestershire Acute Hospitals is able to fully focus on its core mission: patient care.

Within the Value Partnership, risks related to clinical staff productivity are better managed. Staff are more satisfied as their workload has decreased – although not their productivity. Pre-planning by Siemens Healthineers has also helped to prevent increases in trust expenditures. Operations Management measures, i.e. refined service schedules have minimized the disruption to clinical service, and flexibility on technology replacements has been very valuable. Furthermore, Siemens Healthineers has taken on primary responsibility for accurately managing technology

recordkeeping and guaranteeing traceability, providing a significant reduction in workload for the trust staff.

"As a consequence, the clinical staff are able to concentrate on their core tasks," says Dr. Thomas.

The impact of the Siemens Healthineers RIEs has also been noteworthy: Staff engagement and efficiency are both improved, as are processes across the board. Organizational change has clearly been embraced by all stakeholders.

"This cooperation has brought us everything we asked for. The Value Partnership with Siemens Healthineers addresses all our woes."



Chair of the Investment Committee, Worcestershire Acute Hospitals



The result

By multiple measures, the Siemens Healthineers Value Partnership has delivered positive impact for the trust.

There is ample evidence that the trust has made the right decision with its ongoing partnership with Siemens Healthineers: Technology uptime has significantly improved. The optimized Technology Management led to significantly improved equipment uptime. The cost saving on technology replacement and repairs has also been significant, as have the improvement to device specifications and the time saved for managing the device landscape. Also, replacements are provided much more quickly under the Value Partnership than previously.

Other results the Value Partnership with Siemens Healthineers has delivered include reducing the vetting time for radiology requests from 40 to 17 hours and cutting CT "did-not-attends" by 35%. In addition, the trust has seen improved planning and efficiency in procurement, increased quality, and reduced costs.

"Everyday experience with Siemens Healthineers quickly led to widespread appreciation," says Dr. Thomas. "They sorted out many issues."

Key benefits

- Improved patient satisfaction
- Workforce Development improved staff retention
- Created financial transparency and stability
- Realized long-term clinical service strategy
- Up-to date technology

Key results



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Improved and **standardized process** from referral to examination

"Siemens Healthineers has been providing superior service.
Their on-site team provides instant access to technical engineering. Our partnership is personal and interactive."

Tracy Robson

Radiology Superintendent, Worcestershire Acute Hospitals

"The Rapid Improvement Event was a brilliant week! It sorted out many issues and having colleagues in the same room made changes easy."

Tina Bater

Radiographer, Worcestershire Acute Hospitals

The future

The Value Partnership promises to provide value for years to come.

The practices, approaches, and attitudes established via the trust's engagement with Siemens Healthineers are not designed to be temporary. The objective from the start is real, lasting change that delivers benefits daily for years to come. That has been the experience at the trust's Worcestershire Acute Hospitals and promises to be true for the foreseeable future.

Would you like to learn more about optimizing radiology services through a Value Partnership?

Get in contact:

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"Siemens Healthineers is an excellent partner that listens to our needs. We couldn't do without their help. Siemens Healthineers is aces."

Dr. Jeremy Thomas

Chair of the Investment Committee, Worcestershire Acute Hospitals

About Value Partnerships

Siemens Healthineers Value Partnerships are long-term, performance-oriented, collaborative engagements. We bring a combination of clinical insight, medical technology innovation, strategic vision, implementation expertise, and operational excellence to the table for you. As trusted partners, we help you formulate and achieve your strategic goals, increasing enterprise-wide value.

Value Partnerships drive value across your entire enterprise with focus on four domains: Technology, Operations, Workforce and Facility. Furthermore, together we enable breakthroughs through holistic and transformative initiatives such as Strategic Transformation and Digital Innovation.

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The results described herein by customers of Siemens Healthineers were achieved in the customers' 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.

The scientific overlay on the title is not that of the individual pictured and is not from a device of Siemens Healthineers. It was modified for better visualization.

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