Implementing High Value Care in Europe

Public hospitals
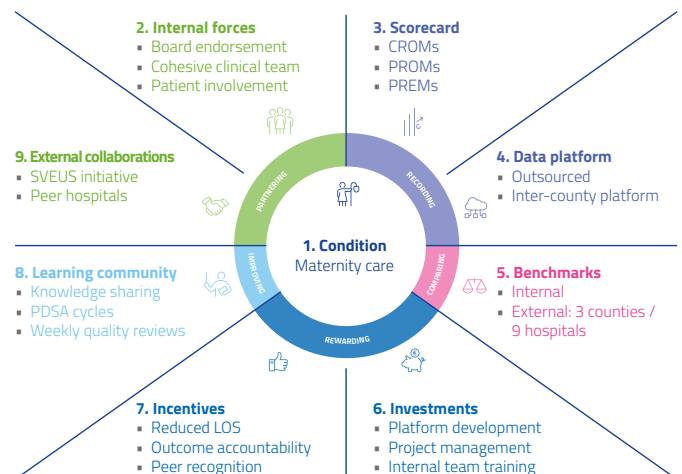# Uppsala Academic Hospital

Context

Uppsala University Hospital is a large academic hospital in Sweden. With 8,300 employees and nearly 360,000 outpatient visits annually[1], it provides highly specialised care for complex and rare pathologies in a catchment area of over 2.2 million Swedes (20% of the population). In 2013, Uppsala launched its HVC transformation plan. "With the implementation of quality registries, we've had outcome data for twenty years, but to achieve an in-depth, value-driven transformation, you also need process," said Professor Morten Kildal, Lead for HVC. This dialogue between process and outcomes empowers teams to lead change across a broad array of departments such as maternity, ambulance and surgery.

Achievements

Two years after launching its HVC programme, the ambulance unit succeeded in reducing the number of unnecessary dispatches by 17% and time to dispatch by nearly 19% without affecting patient outcomes. Furthermore, the maternity care unit reduced the number of induced births by 26% and, with unchanged patient outcomes, it saved 850 bed days per year. Lastly, surgery department nurses designed a digital tool to optimise, in real-time, the allocation of staff resources according to the evolution of patient status.

Implementation

With a clear long-term endorsement from the board, Uppsala decided to implement its HVC transformation plan by focusing on 43 of 230 care pathways across the hospital. "Departments are vertical silos, but if you move everything to processes, you create horizontal silos," asserted Kildal. To increase efficiency, pathway coordinators were appointed to manage patient flows across departments with interprofessional teams focused on improvements within units. Uppsala's plan-do-study-act approach and breakthrough programmes are now integral to a culture of organisational change. Uppsala's Implementation Matrix is presented on the right.

2. Internal forces
- Board endorsement
- Cohesive clinical team
- Patient involvement

3. Scorecard
- CROMs
- PROMs
- PREMs

9. External collaborations
- SVEUS initiative
- Peer hospitals

4. Data platform
- Outsourced
- Inter-county platform

1. Condition
Maternity care

8. Learning community
- Knowledge sharing
- PDSA cycles
- Weekly quality reviews

5. Benchmarks
- Internal
- External: 3 counties / 9 hospitals

7. Incentives
- Reduced LOS
- Outcome accountability
- Peer recognition

6. Investments
- Platform development
- Project management
- Internal team training

- HVC Implementation Matrix

Internal forces

In 2015, Per Andersson, an Uppsala nurse, headed the ambulance unit and took over the dispatch centre, which had been outsourced to a private company. Andersson worked with his team to take full advantage of the control they now had over their unit in order to improve performance through a new software they designed in-house. For example, teams have 90 seconds from alarm to dispatch for top priority missions. To improve efficiency, the team modified the dispatch process so that the ambulance received information on the way to the emergency site. In this way, they succeeded in reducing response times by 19%. They further reduced the total number of ambulances dispatched by 17% through replacing non-clinical phone operators with nurses, whose clinical training enabled them to understand when an ambulance was truly necessary. To ensure these changes added value, they monitored 1,000 patients to whom ambulances were not dispatched under this new process, and verified that none experienced negative outcomes. This PDSA approach validated the implementation of these new operational processes and engaged the team in successive improvement cycles.
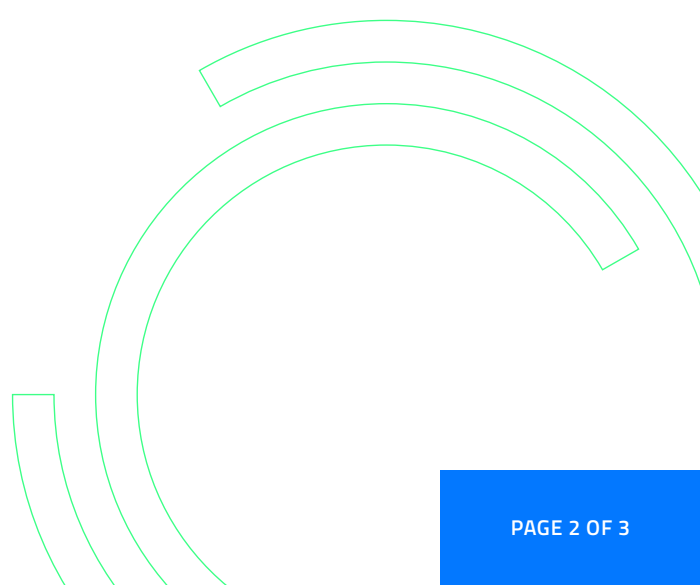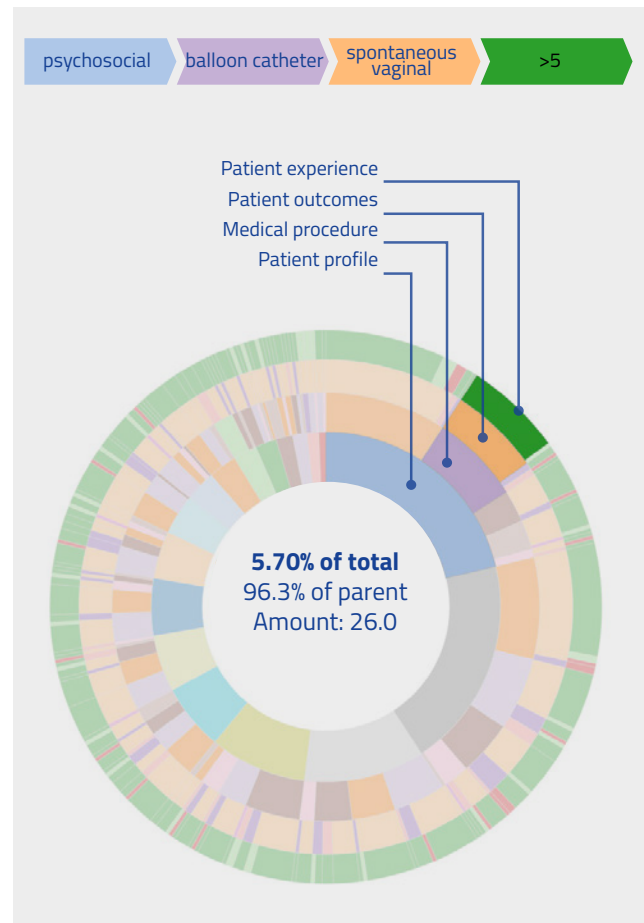
Data platform

Early patient discharge from the maternity ward is valuable when longer hospital stays do not improve outcomes. To achieve this goal, the maternity unit designed an early discharge pathway including midwife homecare visits for 30% of non-complex cases. Compared to the standard care cycle, the new pathway showed equal patient outcomes with 850 bed days saved per year. The Uppsala maternity unit also succeeded in reducing induced births from 23% to 17% (below the national average). To accomplish this, each week, the team analyses data, stratifying the population, assessing individual risk and adjusting care accordingly. They also developed a new tool populated with EMR data – a series of connected wheels displaying the patient profile, medical procedure, patient outcomes and experience six hours after giving birth. This segmentation of patient profiles and outcomes enables the team to tailor pathways to maximise results. With an estimated development cost of SEK 527,000 (€50,000), they then had this digital wheel custom-made for internal benchmarking[2] (Figure 1).

Figure 1

Maternity case mix segmentation tool at Uppsala Academic Hospital

psychosocial | balloon catheter | spontaneous vaginal | >5

Patient experience
Patient outcomes
Medical procedure
Patient profile

5.70% of total
96.3% of parent
Amount: 26.0

Investments

In 2018, surgery followed the example of the burn unit who had earlier pioneered a colour-coded magnet board detailing patient status, the care schedule and nurses in charge. Every morning, during the five-minute team meeting, the magnet board enabled nurses and practitioners to visualise workload, detect bottlenecks, optimise team communication and allocate resources according to patient needs. Inspired by this device and the outcomes achieved, the surgery unit initiated the in-house development of a digital tool to adjust nurse resources according to care intensity. The interactive flat screen facilitates flexible assignments, so that the most experienced nurses can manage the most complex cases. It also increases team adaptability, defuses stress, schedules breaks, and distributes appropriate resources according to patients' evolving needs.

Learning community

For external benchmarks, the Uppsala team compares its outcomes to eight other obstetric departments using a common scorecard. Data are shared on an open source data platform financed by the Swedish National Collaboration for Value-Based Reimbursement and Monitoring of Health Care (SVEUS). In 2017, the maternity unit at Gothenburg University Hospital contacted Uppsala's colleagues to understand how they succeeded in achieving lower post-delivery infection rates. For other quality indicators, the Uppsala team contacted Malmö and Lund University Hospitals, which demonstrated superior outcomes in 2019. This peer-to-peer dialogue is the result of the SVEUS platform that publishes nominative aggregated data across the nine hospitals. In this way, they form a learning community that establishes baseline data and fosters competitive collaboration.

Highlights

"Dissemination of quality management is greatly facilitated if you connect with people and with the support of reliable and transparent quality data", says Kildal. *"HVC is about empowering teams to take change by the hand."* Uppsala's commitment to incremental change and PDSA culture stimulates team inspiration, leadership and outcome accountability.

References:
1. https:/www.akademiska.se/om-oss/om-akademiska-sjukhuset/arsredovisningkvalitetsbokslut- och-korta-fakta/ (accessed on December 10, 2019).
2. Interview with Dr Gunilla Hallberg, Head of the Obstetric Department, Uppsala University Hospital, November 19, 2019.

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