

[20711-D11 High Value Care Framework applied: business case]

[20711 Innovation Support and Coordination]

EIT Health

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Executive Summary (1 page max)

Health's High Value Care Forum supports health and care professionals and health care providers drive transformation in health care systems. Our resources help them to understand and adopt the measurable patient-focused approach HVC demands.

Having identified a lack of adequate training opportunities around the implementation of HVC, the HVC Forum is addressing this need by:

- providing education and training for health care professionals, patients, families and carers, decision makers, and policymakers
- sharing best practice about how to implement HVC.

In particular, two formats have been chosen for this initial resources. The first one being a repository of online, succinct cases carefully chosen by their pioneer spirit to inspire others entering the field; and a second format aimed at being visually appealing and short time-demanding in the shape of both a short and a longer video on the matters.

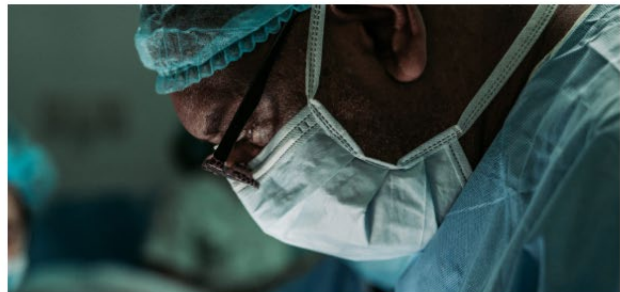
Online Library of Cases

Discover how leading health care pioneers have already made the switch to HVC can be the lever to guide the successful implementation of HVC into real-world settings. For this, a case study library has been set-up with the digested form of business cases in a synthesized and visual format. This can be accessed by everyone, open and freely, through the website: <https://eithealth.eu/project/high-value-care-forum/>

The compendium of this cases can be found in this document as well.

Case study library

Discover how leading health care pioneers have already made the switch to HVC, and access the EIT Health Implementation Matrix in the [Implementing Value-Based Health Care In Europe Report](#) – a framework to guide the successful implementation of HVC into real-world settings.



Santeon (Private hospital)

Santeon

Within 18 months of introducing its HVC plan, Santeon, a Dutch group of private teaching hospitals, reduced reoperations due to breast cancer complications by up to 74 per cent and cut unnecessary inpatient stays by almost 30 percent across its seven hospitals.

Implementing High Value Care in Europe

Public hospital

Basel University Hospital

Context

As one of five Swiss university hospitals in the country, Basel University Hospital (USB) was the first to implement HVC in 2016. With a staff of 7,200 employees and a budget of €1 billion in 2018, USB treats nearly 38,000 inpatients and one million outpatients every year. As a tertiary care facility, USB offers prolific translational research activities in partnership with leading life science companies.

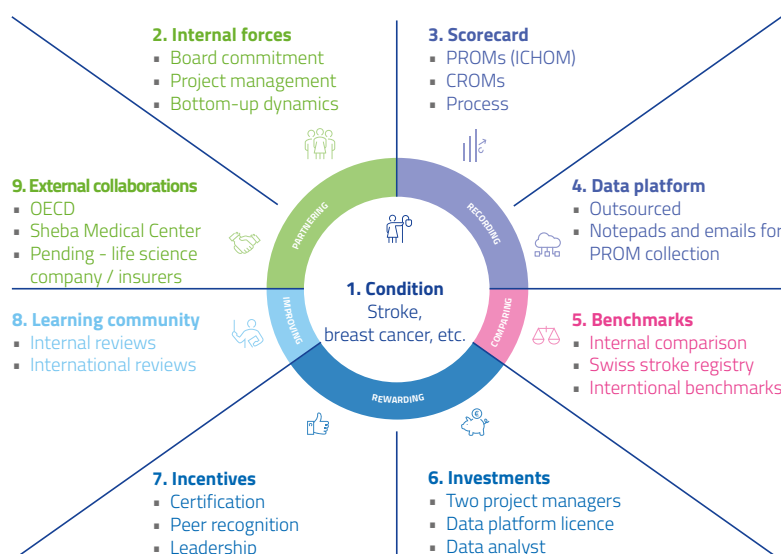
Achievements

Only one year after implementing a HVC pilot, the USB stroke department improved by 14% the median time from symptom to treatment onset, which is of particular importance for stroke patient outcomes¹. For breast cancer, PROMs are routinely assessed and discussed with patients during consultations, leading to improved

patient engagement and satisfaction. Two years after PROM implementation, the OECD Health at a Glance Report 2019 ranked USB third out of nine leading university hospitals across seven countries for crude PROM scores for reconstruction following mastectomy².

Implementation

To achieve these results, USB organised its HVC implementation around three key strategies. First, top management clearly endorsed the value-based approach and offered strong support to clinical teams. Second, USB invested in a dedicated HVC project management team coordinating the implementation across departments. Finally, USB was strategic in choosing conditions with motivated clinical champions where quick wins could mobilise teams and scale HVC programmes in nine other conditions. USB's Implementation Matrix is presented here.





Internal forces

From the outset, the board's endorsement was clear. *"We do not only want to preach excellence, but demonstrate it,"* asserted Professor Christoph Meier, Chief Medical Officer. The first challenge to implement HVC successfully is to co-create this vision and roadmap with clinical champions and medical teams. *"We succeeded to some degree to not be perceived as pure top-down management imposing yet another strategy on our medical staff, but as an ally trying to foster best medical care,"* stated Meier.



Data platform

USB outsourced the development of a data platform to an IT supplier, while involving clinical teams directly, and in 2017, USB introduced outcome measurement for breast cancer. Since then, patients have entered PROMs on notepads at the clinic or via automated e-mails. The data platform provides a graphical display of PROM results. The scorecard features CROMs and PROMs, including the Breast Q suite of tools for breast cancer surgery³. Clinicians have real-time access to PROMs during consultations to support decision-making with patients. *"We can identify problems of each patient early on through these discussions and treat in a more targeted way. What the patient reports has direct consequences on the care pathway,"* explains Professor Walter Weber, Head of Breast Surgery at USB. Patients perceive an immediate benefit. *"I would not have dared to speak about my sexuality to my treating clinician,"* a patient noted. *"Now, the discussion has become more empathic and insightful because clinicians are actively addressing these topics."*



University Hospital Basel



Benchmarks

Every year, Swiss health authorities require all stroke centres to submit standardised clinical outcomes data to the national stroke registry in order to be certified and therefore able to treat stroke patients. Each hospital receives a report on its benchmarked results on an annual basis. Data that are significantly below average may trigger a review process that could lead to certification withdrawal. With a below average score of 162 minutes from symptom to treatment in 2017, USB improved its performance by 14% in just one year, reaching the national average. USB pioneered PROMs collection for stroke, leading the way among the 22 certified stroke hospitals in Switzerland¹. In time, median PROM scores will be publicly reported and trigger a constructive outcome-based competition among certified stroke units. Being ahead of the game will create a competitive edge, improving visibility, attractiveness and eventually cement USB's outcome-based reputation.



Investments

In 2016, USB invested in a dedicated HVC team. This team included a project manager, a quality and patient-centred manager, a data analyst and an information and communication technology coordinator. For cost measurement, the finance department created a TDABC working group with two clinicians and an economist. By 2017, USB implemented the first ICHOM standard set for breast cancer in daily clinical practice. Based on a successful use case, USB adopted a clear road map for implementing HVC in nine additional conditions. Working in close collaboration with medical teams, the project manager oversaw data quality and inclusion rates. Following a series of quarterly review meetings, the department appointed a leader to coordinate PROM collection.



External collaborations

As few hospitals in Switzerland measure outcomes as of 2019, USB is benchmarked against leaders abroad such as Sheba Medical Center in Israel. Insurers have shown interest in entering into outcome- and value-based payment contracts with USB. In addition, world-class life science companies have also shown interest in value-based programmes that evaluate patient outcomes associated with their drugs and devices.

Highlights

Through combined top-down and bottom-up efforts, USB medical teams began their HVC journey with two conditions and expanded to nine within two years. They are pioneering outcome-based competition among Swiss providers. Being ahead of the game creates opportunities to demonstrate excellence at national and international levels, as well as fostering collective pride.

This case report was written in collaboration with Bilger S, Gaensbacher S, Mueller A, Wyss A, Ernst S, and Rueter F from Basel University Hospital.

References:

1. Swiss Stroke Registry, Annual Report 2018.
2. OECD, Health at a Glance. 2019.
3. Tevis S., et al., Patient-Reported Outcomes for Breast Cancer. *Ann Surg Oncol*, 2018. 25(10): p. 2839-2845.

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Implementing High Value Care in Europe

Outpatient chronic care clinic

Diabeter

Context

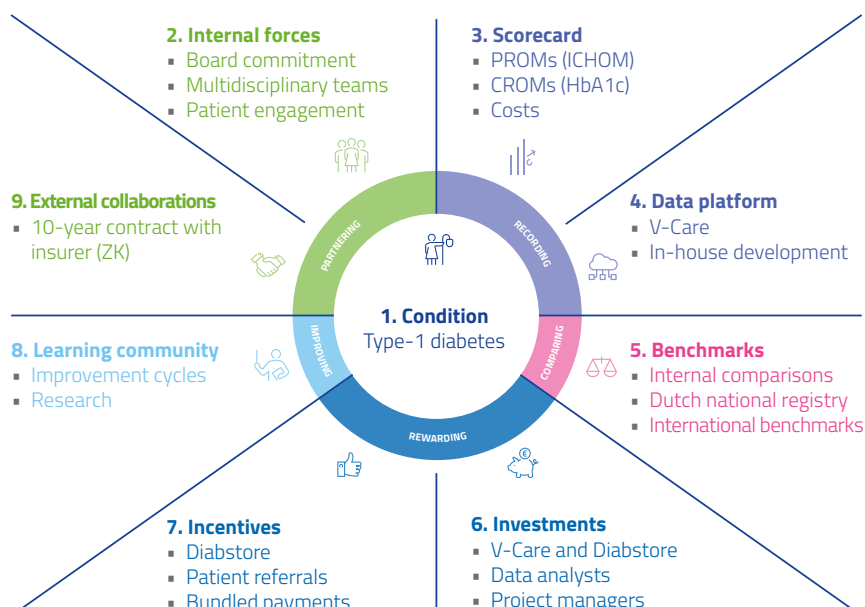
Acquired in 2015 by Medtronic, Diabeter is a Dutch group of certified clinics that specialise in providing comprehensive and individualised care for children and young adults with type 1 diabetes. This acquisition marks Medtronic's first entry into an integrated care model focused on diabetes. This strategy offers more than pumps and sensors, but rather a holistic diabetes management solution focused on patient outcomes and costs¹. In 2019, Diabeter cared for more than 2,400 patients in their five locations across the Netherlands. The Diabeter outpatient care model includes four visits per year, virtual consultations, clinical and administrative staff services, a 24-hour medical hotline, lab costs, data platform and sensor equipment. Diabeter operates as part of Medtronic, but maintains its professional autonomy and independence in clinical decision making, therapy and brand choice, to ensure that patient care and patient data remain in the hands of clinicians.

Achievements

The key outcome measure for type 1 diabetes is glycemic control (HbA1c levels). Above a threshold of 7.5% correlates with an increase in avoidable death. At Diabeter, 55% of pediatric patients are below this threshold, compared to only 28% of the Dutch paediatric population. Diabeter also has 3% hospitalisation rates versus an average of 8% in the Netherlands. Diabeter has achieved these results without increasing costs.

Implementation

Diabeter achieved superior outcomes through the rigorous pursuit of outcome measurement for type 1 diabetes patients. The in-house design of digital solutions ensures outpatient monitoring and access to products in real-time. Diabeter's Implementation Matrix is presented here.





Data platform

Beyond providing care, Diabeter created Diabstore, a digital retail solution to give patients ready access to prescribed devices and consumables such as insulin pumps, glucose meters, strips, and insulin. Patients can access Diabstore virtually or at point of care. All products are fully reimbursed and invoices are sent from the distributor directly to the insurance company. Diabeter services and Diabstore represent 74% of the bundle price. The other 26% is made up of other devices, care providers and pharmacies. To make care easier for both patients and caregivers, Diabeter developed and manages the VCare electronic platform, which uploads data from a patient's insulin pump or glucose meter to a Diabeter server that displays the patient's real-time health status on a central dashboard, allowing for direct extraction of CROM data. Colour codes reflect glucose data. An extended report is then sent on for analysis by a nurse, and subsequently emailed to the patient with information on trends, target settings, treatment plans, and follow-on appointments with Diabeter. If there are large deviations in the data uploaded by the patient, an alert is automatically sent to one of the medical doctors for immediate action. *"We didn't want to step out of the hospital setting,"* said Dr. Henk-Jan Aanstoot, *"But we understood that building a new and efficient IT system was not possible inside a regular hospital, so we decided to create our own."* Now outside the hospital setting, Diabeter has partnered with an independent IT company to build a web portal and patient app for collecting PROMs, where the response rate is 95%. In terms of metrics and scorecards, Diabeter has also begun to align its practice with the ICHOM Diabetes Standard Set, released in April 2019, in order to enable statistical comparison on both national and international levels.



Investments

A care manager is assigned to each individual patient to coordinate care between the patient and the multidisciplinary team – clinicians, nurses, behavioural specialists, dieticians and administrative staff. Working together, the team invests in an initial period of intense care, since the outcomes in the first year determine those for the next fifteen years. Patient glycemic levels are reported through remote technology and patients can react and self-adjust their insulin doses accordingly. Remote consultations enable quick checkins – in between appointments, Diabeter averages 24 points of contact, compared with the nationwide average of two. Patients also have access to a round-the-clock emergency hotline. Diabeter's communications with its patients include sharing extensive data analysis. Dr. Henk Veeze, co-founder of Diabeter, notes that *"Sharing real-time data makes the levers actionable. The goal is to integrate this evaluation in the current care plan,"* and this real-time data is used to empower patients further in contributing to their own outcomes.



Learning community

Diabeter has created a unique working environment through expertise-centered policies for its medical staff and an appealing interior design of its facilities, acting on a body of evidence between work environment and patient outcomes². When teams are empowered to apply their expertise to improve results, stress and burnout at work decline while patient satisfaction rises. Leadership at Diabeter enacted a policy of removing the administrative burden on doctors and nurses to make sure they devote 100% of their time to patients, leading to Diabeter clinicians treating an average of twice as many patients relative to the national average. This dedication to a pleasant working environment permeates the physical as well as social environment at Diabeter. Diabeter facilities are conveniently located in city centres, with easy access to public transportation. Sterile medical surroundings have been replaced with cheerful, architectural design. No white coats. Natural light and bright colours abound with round tables in consultation rooms. It's a place where patients and staff are happy to spend their time. As Dr. Veeze concludes, *"Now 10% of Dutch hospitals have handed their patients to Diabeter, including two out of seven university hospitals."*



External collaborations

Diabeter signed a 10-year bundled payment partnership with Zilveren Kruis (ZK), the largest insurance company in the Netherlands. ZK refers type 1 diabetic patients to a Diabeter centre, where treatment and follow-up are covered by a fixed fee, including costs associated with hospitalisations or complications (e.g. blindness, vascular diseases and kidney replacement therapy). If costs are lower than the bundle price, or if outcomes achieved are higher than the target, then value is financially rewarded. In general, the Dutch health system sets a limit to the number of patients that a provider may have covered by an insurer, but based on Diabeter's superior outcomes, ZK covers all Diabeter patients without budget limits. This partnership is exceptional in the Netherlands, where insurers usually sign only one-year contracts with providers. As part of the contract terms, Diabeter's performance is based on patient glycemic levels. According to improvements in these results, individual patients are allocated a score between +2 and -2 points, and thus, Diabeter incurs bonuses or penalties. Dr. Veeze recalls that, *"When we launched Diabeter, the goal was never to reduce costs. Our goal was to improve outcomes. For example, we gave nurses twice as much time to take care of patients. But through focusing on the highest quality care, we have achieved more with reduced costs."*

Highlights

The single condition focus and the commitment to employee satisfaction empowers Diabeter clinicians to remain concentrated on the full spectrum of patient needs, leading the group to consistently outpace the national averages for outcome data.

This case was written with contributions from Veeze H. and Aanstoot H.J., co-founders of Diabeter.

References:

1. Medtronic press release, April 2, 2015.
2. <https://www.siemens-healthineers.com/en-us/services/enterprise-services-and-solutions/case-studies> (accessed on December 12, 2019).

Image by Myles Tan



Implementing High Value Care in Europe

Network of independent caregivers

GLA:D

Context

Founded in 2013 by a research team from the University of Southern Denmark, Good Life with osteoArthritis in Denmark (GLA:D) is a non-profit organisation training and certifying physiotherapists to deliver neuromuscular exercise to patients with osteoarthritis. With more than 800 sites and 1,300 certified caregivers across five countries in 2019, the GLA:D initiative has helped 50,000 patients to maximise outcomes¹. GLA:D supports the application of exercise as first line treatment. It has built an outcome-based registry, enabling a learning community of caregivers around the design of non-invasive care pathways engaging patients and reducing unnecessary surgeries and imaging. For all these achievements, GLA:D won the VBHC Prize 2019².



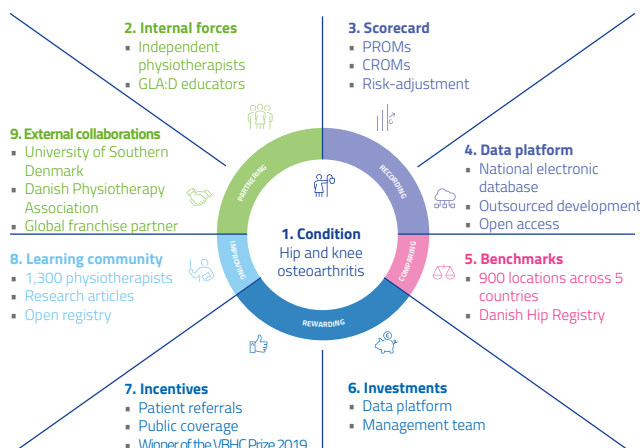
Achievements

Immediately after undergoing GLA:D training, patients' walking speed increases by 10%, while pain intensity decreases by 25%, on average. Only three months after programme start, knee patients reduce their intake of painkiller medications by 29%, on average. After one year, hip patients' quality of life improves by 20% and sick

leave for knee patients drops by 42%. With a fee of DKK 3,700 (€495) and costs for total knee or hip replacement of DKK 50,800 (€6,880), GLA:D generates value for patients and health systems by improving outcomes while reducing overmedicalisation.

Implementation

GLA:D was launched by academic entrepreneurs. "Over the years, sitting on different guideline committees and seeing lots of health care money being spent, I witnessed the stagnation of clinical practice, and I got increasingly frustrated", explains Professor Ewa Roos, co-founder of GLA:D. "Professor Søren Thorgaard Skou and I said, let's do it ourselves!" Based on close dialogue with referring general practitioners, orthopaedic surgeons, patients and the health care region of Southern Denmark, the GLA:D initiative illustrates a paradigm shift towards early, cost-effective treatment of a chronic disease. Notable elements of the HVC Implementation Matrix are presented on the right.





Scorecard

GLA:D is a standardised, but individualised, treatment plan consisting of two patient education sessions and 12 neuromuscular exercise therapy sessions supervised by a certified clinician. GLA:D's scorecard includes outcome data with condition-specific metrics and a risk-adjusted methodology. A national electronic database collects information such as patient symptoms (pain intensity), functional outcomes (walking speed), quality of life, and other indicators with economic impact such as consumption of painkiller medications and duration of sick leave.



Investments

In 2019, the founders invested in a management team consisting of a clinical specialist, a medical laboratory technician, a database manager and a manager of business development. With the support of the Danish physiotherapy association, GLA:D raised €150,000 and entered into a contract with a Danish IT-provider to build the GLA:D registry. As a non-profit initiative, GLA:D fees that are generated from a course offered to physiotherapists are reinvested in the maintenance of the registry. GLA:D has otherwise struggled to find investors willing to financially support their aim and the infrastructure necessary to accomplish it. Founders made an additional investment in the GLA:D brand. "The fact that GLA:D is still run out of a university gives credibility and therefore was an important asset when talking to clinicians," explains Professor Roos. However, GLA:D's success in delivering better outcomes has not yet materialised in an outcome-based payment. At present, most patients pay 60-100% of the treatment cost out of pocket, which limits patient access³.



Learning community

Data are published online enabling therapists to assess and benchmark their results against the GLA:D community on both national and international levels. GLA:D has created a franchise and expanded the brand to Canada, Australia, Switzerland and China. To deepen the learning experience, the team launched GLA:D back in 2018, a programme of nine courses more than 500 clinicians at the University of Southern Denmark. Beyond education, a series of scientific articles has been published describing the development of the concept and the initial findings⁴.



External collaborations

The rapid expansion of GLA:D requires the development of collaborations around the world. Through its franchise, GLA:D exported its methodology overseas and, as such, established the relationships necessary to build this global network of caregivers operating in different health systems, applying the same medical approach with replicable results. "GLA:D is spreading fast," declared Professor Eva Roos, cofounder of GLA:D. "Certified physiotherapists adapt rapidly. They are very motivated and feel a strong sense of ownership. This allows for relatively quick organic growth – especially when there is no governmental support." The decision to register as a trademark was the only way to ensure the high quality of care provided by the trained physiotherapists, since they are obliged to follow the principles of GLA:D and contribute data to the registry.

Highlights

GLA:D is an entrepreneurial non-profit initiative. The programme has become a trademarked protocol adopted by a global community of independent caregivers, benchmarking and improving through an outcome-based registry. This case illustrates the importance of both preventative and curative care for functional recovery after surgery. It further demonstrates the value of process guidelines, and the relevance of refining guidelines, using patient outcome data.

References:

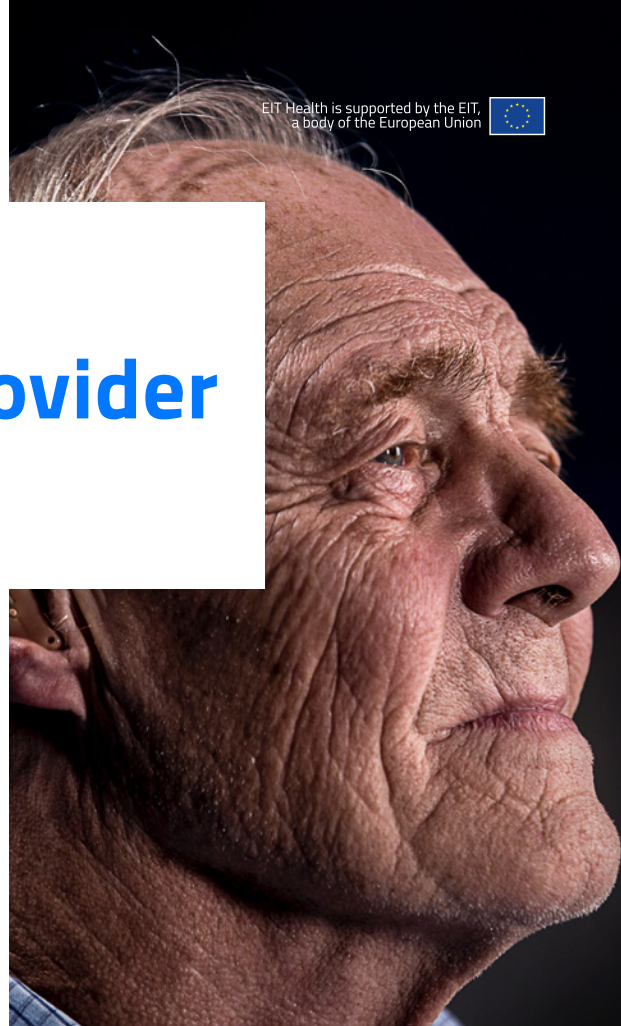
1. GLA:D Annual Report 2018.
2. <http://vbhcprize.com/what-is-the-vbhcprize/>. (accessed on December 10, 2019).
3. Skou, S., Roos E., Good Life with osteoArthritis in Denmark (GLA:D): evidence- based education and supervised neuromuscular exercise delivered by certified physiotherapists
4. Kjaer, P., et al., GLA:D((R)) Back group-based patient education integrated with exercises to support self-management of back pain – development, theories and scientific evidence. BMC Musculoskelet Disord, 2018. 19(1): p. 418.

Implementing High Value Care in Europe

Condition specific provider Martini-Klinik

Context

Founded in 2005 and with profits of €3.4 million in 2018, Martini-Klinik (MK) is a private centre exclusively focusing on prostate cancer care, with a structure entirely organised around patient outcomes. MK is a private clinic situated on the Hamburg University Hospital campus and works in close collaboration with onsite academic departments and services^{1,2}. MK's 5,000 outpatients annually, 250 staff members and 2,600 radical prostatectomies performed in 2019 (11% of prostatectomies in Germany) makes it the leading prostate cancer treatment centre worldwide, in both volume and outcomes.



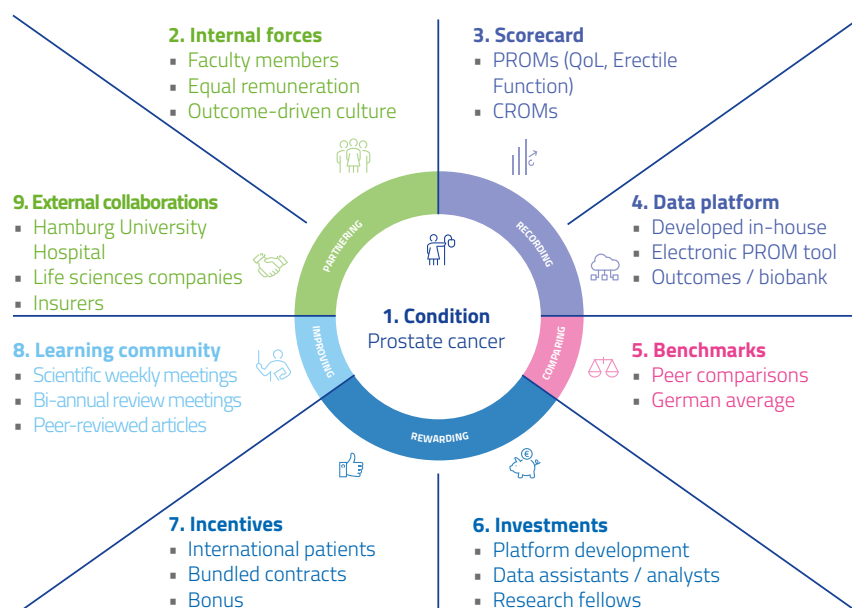
Achievements

Compared with the German average, severe incontinence rates are 11 times lower, whereas full continence is 45% higher, at MK³. One year following surgery, severe erectile dysfunction is 55% lower at MK, as compared to the German average, and further, MK complication rates are 15 times lower for ureteral injury and 62 times lower for sepsis.

These achievements result from the unique *integrated practice unit* (IPU) organisational structure^{4,5}, and a strategy centred on outcome measurement, team cohesion and continuous improvement – also known as the “Martini Principle.”⁶

Implementation

A particularly unique feature of MK's implementation is a constant focus on the cornerstone building block – mobilising internal forces. Notable elements of the HVC Implementation Matrix are presented here.





Internal forces

All faculty members train in a specialty, and each one of them is considered to be a critical piece of this finely tuned operation – no one is considered more or less valuable than the others. Junior faculty members trained at MK can achieve full-faculty status after only two to three years with full voting rights.



Scorecard

MK's scorecard includes risk-adjusted PROM and CROM data. PROMs include calibrated surveys that measure functional results and general health. Following surgery, analysts collect surveys at regular intervals over the patient's lifespan, and then combine PROMs with CROMs to complete the scorecard. In 2019, MK documented approximately 30,000 cases in its data system. PROM data are combined with the biobank, which contains more than 20,000 blood, tissue and urine specimens.



Data platform

In 2005, MK developed its data platform with FileMaker Pro, applying a series of technical updates over the years². The team supporting data collection consists of two database technicians, three documentation assistants and two research fellows. It sends annual PROM surveys by letter or via webbased questionnaires following treatment, and from 2020 onwards, patients will be able to enter their data online via a vendor PROM system, which offers interoperability with EMRs.



Benchmarks

Every six months, faculty members receive their individual outcomes, as well as those of their colleagues. Reports include basic information such as case volume per surgeon, patients' average age and tumour stage. Also included are surgical data such as average blood loss, positive surgical margins, lymph node removal, and nerve-sparing. Analysts make comparisons such as outcomes from open versus robot-assisted surgery. MK publishes its annual report online with outcomes such as average disease-specific survival, continence rate, potency, and biochemical recurrence per age group and cancer stage (Figure 1).

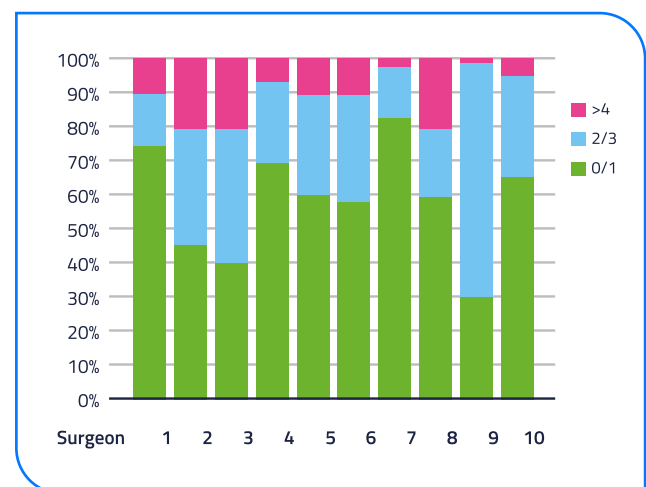


Incentives

MK applies a unique compensation system that incentivises both outcomes and team cohesion. Salaries are equal for all faculty members, and include a bonus based on quality targets and total scientific output. The bonus is pooled and distributed equally among clinicians, which strengthens group dynamics⁶.

Figure 1

Early continence rates after prostate cancer at Martini Klinik





Learning community

Embedded in the MK team culture is the imperative to continually improve – a belief that you never reach the top of your game. This belief had an equalising effect among the senior and junior faculty members, which solidified team dynamics. Dr. Hartwig Huland himself, founder of the MK and a senior faculty member, acknowledges that he learned from a junior colleague how to improve patient outcomes through innovative surgical techniques. MK clinicians follow a dedicated schedule of meetings bringing senior and junior faculty together to discuss new and complex cases as well as research findings. Bi-annual meetings include a Martini conference and quality reviews in which outcome data are discussed, and MK clinicians engage in a reading-rotation, enabling them to cover 27 leading medical journals over nine weeks¹.



External collaborations

MK has negotiated multiple bundled payment contracts starting with the five largest German insurers. Contracts require MK to treat any complication within three months after surgery at no additional charge. The health plans and MK agreed to quality targets of >95% for urinary continence and >97% for erectile function. Postoperative complications like infections or thrombolysis were capped at no more than 1% of cases¹, and failure to meet these outcome targets could lead to contract cancellation. In 2012, MK added to the bundle an agreement with a nearby hotel to offer out-of-town patients the option to stay at a reduced rate while waiting for the removal of their catheter following surgery². The collaboration helped to reduce the average length of stay and increase case volume with the same number of beds. In 2013, MK signed a contract with a leading private Swiss health insurer to treat its prostate cancer patients at MK facilities in Hamburg, over 700 kilometres from the Swiss border with Germany¹, and MK created a care bundle for international prostate cancer patients, including surgery, inpatient stays and travel expenses. As a result of these developments, the number of MK patients coming from abroad had quadrupled in the five years prior to 2019.

Highlights

Through its exclusive prostate cancer focus, MK has succeeded in creating a unique outcome-driven culture that mobilises team cohesion. MK's demonstrated outperformance has led to strategic partnerships with private insurers, bundle payment contracts and a growing attractiveness to international patients.

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3. Barmer Krankenhaus Bericht 2012.
4. Porter, M., Teisberg E., Redefining Health Care: Creating Value-Based Competition on Results. Harvard Business School Press. 2006.
5. Porter, M., T. Lee T., The Strategy that Will Fix Health Care. Harvard Business Review, October 2013.
6. Huland H., Graefen M., Deerber-Wittram J., Das Martini-Prinzip: Spitzenmedizin durch Spezialisierung, Ergebnistransparenz und Patientenorientierung. MWV Medizinisch Wiss. 2018.



Implementing High Value Care in Europe

Private payer Menzis

Context

A leading insurer in the Netherlands, Menzis covers approximately 13% of the population. Through its HVC strategy, Menzis offers Dutch providers bundled payment contracts based on outcome and cost measurements.



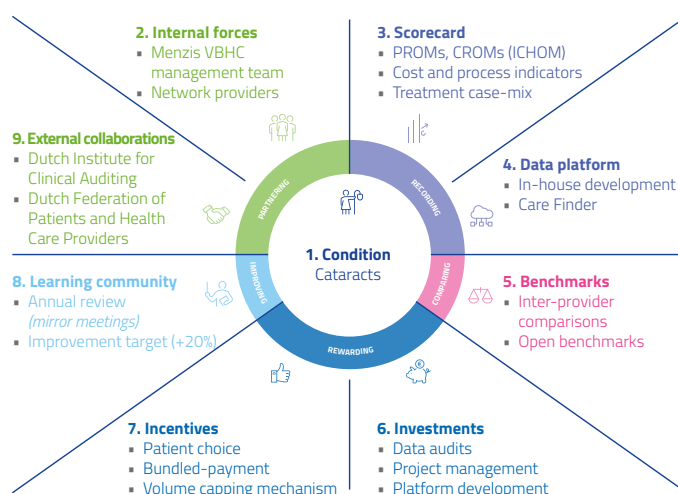
Achievements

Since the first value-based contracts with Santeon hospitals in 2017, Menzis has offered bundled payments for breast cancer, hip and knee replacement (HKR), cataract surgery, rheumatoid arthritis, cardiac failure,

depression and bariatric surgery. Bundled payment contracts are publicly available and can be downloaded via the Menzis portal¹. For each provider under a bundled agreement, outcome average scores are also public.

Implementation

Bundled prices combine base price per care unit (adjusted to patient case-mix), medical products used along the care pathway, and outcomes achieved. For HKR, the three year contract measures outcome indicators (e.g. infection, revision, PROMs) and costs (e.g. hospital days, treatment case mix). "We use ICHOM sets and quality standards from the Dutch Institute for Clinical Auditing (DICA). Were we to use other standards, health professionals would probably not adhere", asserts Dr. Wija Starting, Health Manager. For HKR, Menzis requires a minimum response rate of 60% for pre- and postoperative PROMs. For each condition, providers' annual performances are benchmarked during mirror meetings (see below) and published online with the support of the Dutch Federation of Patients and health care providers.





Benchmarks

Value achieved by each provider is compared during *mirror meetings* under the supervision of an independent third party. The purpose of *mirror meetings* is to inspire participants to raise the value of care they deliver to patients. They are also an opportunity to learn and improve from other providers. The third-party audits data quality and checks the appropriateness of medical indications to prevent unnecessary treatment. Through its *Care Finder* online portal, Menzis shares each provider's average outcomes performance with its customers. Although Menzis does not pronounce value judgements on the care itself, it makes clear distinctions between providers so customers can make informed choices regarding where to seek care. PROM comparisons trigger competition among providers and impact the bundled payment terms for the coming year. *Mirror meetings* also stimulate the exploration of underlying practices to develop a better understanding of outcome drivers.



Learning community

During *mirror meetings*, Menzis presents improvement potential illustrated through the difference between a provider's performance and the best-in class provider. Improvement is considered to have been achieved only if the results from the previous year have been enhanced by at least 20%. This performance serves as the baseline for the following year. In the first contract year, patient volume is unlimited and fully covered by the insurer. In the following years, the number of reimbursed cases depends on the degree of value improvement achieved relative to the previous year. Volume is capped if the provider does not improve.

Highlights

Mirror meetings set economic and psychological incentives for providers to cooperate in order to preserve agreements with the payer. Menzis benefits from this learning community that incrementally improves value over time, thus reducing complications and incurring costs.

References:

1. <https://www.menzis.nl/zorgaanbieders/zorgsoorten/medisch-specialistische-zorg/contractering/waardegericht-inkopen#staaroperaties> (accessed on November 25, 2019).

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Implementing High Value Care in Europe

Third party quality registry

The Netherlands Heart Registry

Context

The Netherlands Heart Registry (NHR) is a non-profit organisation facilitating a HVC programme for cardiac diseases across 22 Dutch heart centres. This registry was established in 2012 under the name of Meetbaar Beter ('Measure Better') and merged into the NHR, a third party connected to the national associations of cardiologists and cardiothoracic surgeons, ensuring a clinician-driven perspective. With a budget of €1.7 million, NHR is committed to serving clinicians' needs to benchmark performance against a standard and compete effectively in the market. Through public reporting, NHR serves cardiac patients and health system users in making outcome data visible and patient choice possible¹.



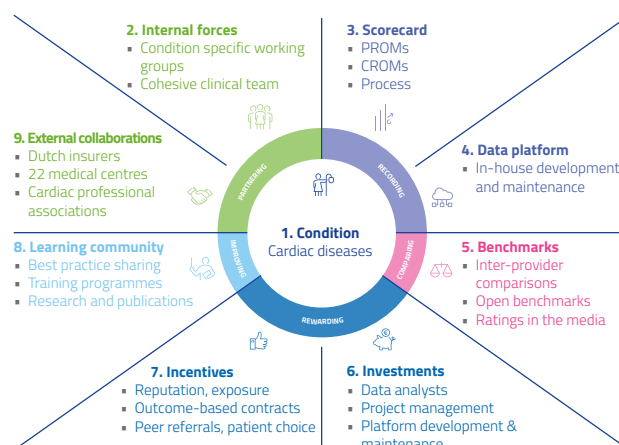
Achievements

As of 2018, NHR had collected data across five conditions and 12 treatment options, representing 85% of complex heart care in the Netherlands. Between 2015 and 2017, the 120-day mortality rate for the Transcatheter Aortic Valve Implantation (TAVI) dropped by 17%. For combined aortic valve disease and coronary artery disease, the 120-day mortality dropped by 38%². Completeness of published data is 99% on average, with more than 500

quality checks performed annually on 600,000 endpoints for patient relevant outcomes. The registry covers over 1.3 million cardiac procedures across the Netherlands, with an increase of 80,000 per year. It has been recognised and accepted as a public utility, with mandatory hospital interventional cardiology and cardiac surgery license registrations embedded in the database.

Implementation

NHR implements its organisational strategy with an eye towards the HVC plan of the institutions it serves, aiming to support hospitals and heart centres in their Matrix implementation. NHR assists medical centres with an implementation handbook, standard operating procedures and guidelines for data collection. The NHR support of the Hospital Implementation Matrix is presented on the right.





Scorecard

For each cardiac condition covered in the registry, NHR builds registration committees to select, define and maintain the most relevant scorecards. Registration committees collaborate in a multidisciplinary way, including both cardiologists and cardiothoracic surgeons from participating heart centres, and are organised around specific cardiac conditions. Further solidifying and maintaining clinician buy-in is a rigorous validation process conducted by NHR statisticians and experts in medical decision-making. NHR also works with independent organisations in data validation, including through the international academic advisory council (IAAC), and councils on methodology, data management and statistics.



Internal forces

NHR assembled an expert panel to ensure the involvement of health insurers, as well as patient and government organisations. *"Our main focus is that hospitals send good quality data,"* says Dennis van Veghel, Director and cofounder of NHR. *"We are here to help them. It's a collaboration based on trust"*³. The NHR database is critical to hospitals in catalysing internal dynamics focused on data, benchmarking, and improvement, and the trust in the data quality enables clinical leadership to point the team in the direction of a concrete target. The public data also creates a competitive market place, with a common objective between the teams, which further sharpens the focus of cardiac departments on achieving higher quality outcomes.



Data platform

In addition to these processes to validate the data, NHR implements safeguards to minimise errors and give clinicians the opportunity to verify data before reports are made public. For one, the reporting process is programmed to reject the upload of data documents that include errors into the system. In addition, providers receive initial reports and have the opportunity to make corrections. NHR also requires that 90% of the data reported is complete. Finally, clinicians review a dashboard with uncorrected average data, and get the opportunity to examine outliers and advocate for changes that may be necessary.



Investments

To participate in the registry, institutions sign contracts which obligate them to full data disclosure. To have their data analysed, audited and published, medical centres pay an annual fee of €10,000, on top of the regular fee, which depends on their cardiac procedures (pacemaker = €3,000; percutaneous coronary intervention = €30,000; cardiac surgery = €70,000). The clear incentive for medical centres, besides the ambition to improve quality, is that nonparticipation could send a worrying signal to patients and insurers regarding the reasons why the hospital has chosen not to make their data transparent.



Learning community

NHR is a learning ecosystem where providers are enabled to improve thanks to outcome sharing and collective performance. Several centres have implemented improvement projects that were directly inspired by NHR outcome-data published. In a separate learning opportunity in 2014, another medical centre showed higher mortality rates than predicted, and did not want to release their data, citing allegations that the data were biased. Following a series of quality checks, NHR data analysts verified that the data were sound and valid. NHR proposed (i) the hospital to exit the programme and have this pullback disclosed to the media, which could affect its reputation and its capacity to contract with insurers, or (ii) to publish transparently and provide space for the hospital in the publication to explain their improvement plan. The provider accepted to proceed with data publication and, the year after, their outcome data improved and reached the national average. This example illustrates the direct influence of NHR's learning community to leverage performance across providers.



External collaborations

The NHR data registry also serves as the infrastructure necessary for insurers and providers to pilot bundled payment arrangements that involve a financial bonus to clinicians for quality outcomes. NHR creates the rules around which market players compete – a framework that did not exist prior to NHR, and one that stimulates a data-driven, value-based dynamics across providers. NHR also makes participating providers visible in the media. *"We manage the media every year. Network, newspaper, TV. Providers deserve visibility and a safe environment based on trust,"* says Veghel.

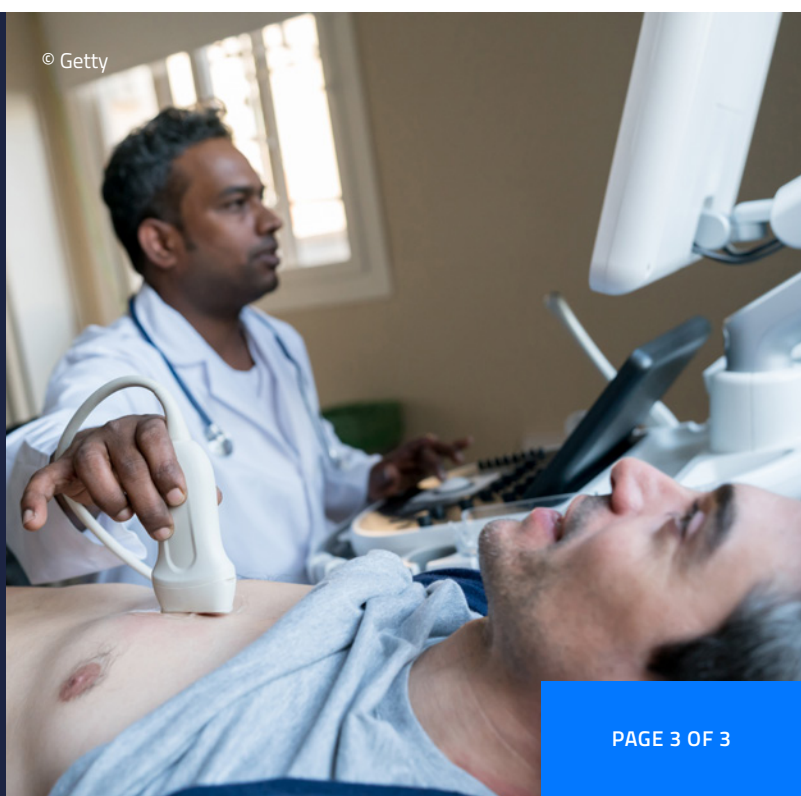
Highlights

The NHR case illustrates the power of data transparency. As an independent third party, NHR has succeeded in acting as a neutral facilitator to create a value driven competition across cardiac medical centres in the Netherlands. Involving cardiac medical societies, patient representatives, health insurers and the media has been instrumental to establish NHR's leadership role.

References:

1. Veghel, H.P.A.v., Improving cardiovascular disease management by implementing valuebased healthcare principles. Technische Universiteit Eindhoven 2019. 115.
2. NHR Publicatie Registratie 2018.
3. Interview with Dr Dennis van Veghel, Founder of the Netherlands Heart Registry, October 4, 2019.

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Implementing High Value Care in Europe

Public hospitals

New Karolinska Hospital

Context

The New Karolinska Hospital (NKS) is an ambitious project to establish one of the most advanced and specialised hospitals in Europe. The project involved new state of the art buildings and later a HVC patient-oriented organisation, conceptualised and constructed as a way to address the fragmentation of specialty silos. With 15,000 employees and 1,300+ beds, the NKS project was publicly funded and managed by the Stockholm county council, among other large complex projects. With a cost of SEK 22.8 billion (€2.19 billion) in 2019 – twice the original budget – NKS is described as the most expensive hospital ever built¹. The strategic health care plan for the region sought to clearly differentiate between highly specialised and generalist hospitals, as well as to expand the role of primary care and community care centres. Furthermore, the new hospital buildings are smaller than those of the previous facility, which generated confusion with respect to which patients were to be moved and which would be directed to other hospitals.



Implementation

The NKS overhaul of its operational and managerial models ran in parallel with the creation of new buildings and patient flows, and the necessary new IT systems lagged in their development. Several notable elements of the HVC Implementation Matrix suffered from this 360° transformation.



Conditions

The HVC initiative coincided with the development of novel hospital operating processes and infrastructure. *“Rather than medical specialties, NKS’ new model focused on patient groups arranged by themes and coordinated by a patient flow manager”,* explained Melvin Samsom, former NKS CEO. *“This approach aims to increase emphasis on quality and outcomes, with a stronger focus on what patients see as important”*¹. An organisational model was created with seven medical themes (e.g. heart and vascular) and five functions (e.g. emergency medicine), with diagnostic-driven patient care flows. New management roles were created, in particular the Patient Flow Captain (PFC) responsible for designing, managing and continuously evaluating each flow.



Scorecard

Interprofessional and interdisciplinary teams met patient representatives, comptrollers and researchers around “oval tables” to select relevant outcomes and cost indicators, develop scorecards using business intelligence software and drive continual improvement. Institutional integration already existing within the Karolinska Institute and the Medical University aimed to improve care quality, research and education.



Learning community

Educational needs were not adequately addressed in the new organisation, creating serious concerns about future competency. The HVC efforts at Karolinska built heavily on Lean, but lacked the learning organisation needed for knowledge sharing. The hospital CEO departed in 2019, and the project has entered into a process of re-evaluation and organisational redirection.



Internal forces

The HVC initiative began with ten pilots testing patient care pathways including process mapping. Consultants from strategy consulting firms became heavily involved in the hospital reorganisation, and were perceived as having been granted undue leadership roles side-lining clinicians¹. Staff felt they were engaged as data sources without inclusion in the decision-making process, something that was often described as difficult to understand². While patients were positive about the increased influence they had on care through this HVC initiative, staff became more sceptical and critical over time. Interpretations of the PFC role varied, particularly regarding the associated financial responsibility and executive mandate. The new patient flows broke up traditional specialty structures. In addition, the infrastructure of the new hospital building exhibited serious problems leading to frustration and difficulties performing health care activities. Investigative reporting led to negative press which dogged the process as it was debated in public and professional fora.

Highlights

This case illustrates that HVC implementation is a winding road. The number of transformational programmes launched simultaneously at NKS created noise that had a detrimental impact on the HVC implementation. Despite these difficulties, NKS is a pioneer in the implementation of HVC and many aspects of its programme remain relevant. NKS is applying lessons learned to rebuild a new Matrix implementation model as noise dissipates.

References:

1. Paterlini M., Troubled rebuild of Stockholm's landmark hospital has cost twice as much as planned. *Bmj*, 2018. 361: p. k1816.
2. Fredriksson J., Ebbevi D., Savage C., Pseudo-understanding: an analysis of the dilution of value in healthcare. *BMJ Qual Saf*, 2015. 24(7): p. 451-7.

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Implementing High Value Care in Europe

Health system

NHS Wales

Context

The National Health Service (NHS) Wales delivers universal health care for 3.1 million Welsh residents with a 2019 budget of £7 billion (€8.2 billion). In 2014, the Welsh Minister for Health and Social Services launched a policy called Prudent Health care, focusing on co-production with patients, equity, reducing over-medicalisation and unwarranted variation in care. Subsequently, high value care has become a vehicle for delivering Prudent Health care under the overarching policy of 'A Healthier Wales'¹. To implement this plan, NHS Wales created a national HVC team led by Dr. Sally Lewis, with the ambition "to improve the health outcomes that matter most to the people in Wales".

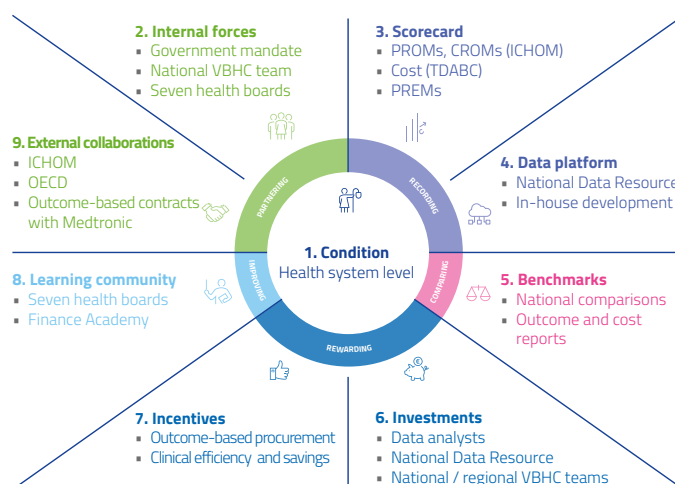
Achievements

In 2017, NHS Wales developed a portal for standardised PROM collection for 31 care pathways, with questionnaires available in English and validated Welsh translations. Aneurin Bevan University Health Board (ABUHB) has been a pioneer in collecting PROMS for over 20 conditions with a 77% response rate through the use of smartphones. NHS Wales is also building the National

Data Resource – an interoperability hub with an open application programming interface (API) – as well as national disease reporting dashboards to increase transparency with Welsh citizens by letting them compare providers and outcomes. Lastly, NHS Wales has signed outcome-based contracts where life science vendors receive payments when target outcomes are met.

Implementation

Through dialogue with practitioners and medical associations, NHS Wales reaches clinical consensus on outcome sets and PROM tools, often using ICHOM standard sets for specific conditions. Costs are measured either with TDABC or, at hospitals, with patient level costing. To accelerate HVC implementation across seven Welsh health boards, the national HVC team works to support local teams in embedding HVC activity. "The plan-then-do approach is obsolete – even dangerous"², says Professor Alan Brace, NHS Wales' Director of Finance. "Today's successful organisations close the strategy-to-implementation gap with a new approach best described as Decide-Do/Refine-Do"³. This agile test-and-learn approach fuels NHS Wales' entrepreneurial implementation at health system level.





Data platform

In terms of digital transformation, NHS Wales is developing the National Data Resource (NDR) – a multi-provider benchmarking hub that enables open reporting, research, as well as clinical and operational support across Wales³. Cost-effective solutions are developed in-house to improve data visualisation for patients and caregivers. With national terminology standards, *“The NDR is a set of national and local servers holding and linking data produced by Welsh health care organisations, with strict information governance standards and a federated approach”*, said Helen Thomas, Director of Information.



Learning community

NHS Wales is developing a HVC learning community at national and regional levels through various initiatives. For example, it has developed a year-long programme across the seven health boards – the Finance Academy – where finance and clinical participants work in pairs to devise and implement value-based projects locally. Another example is the national costing exercise, which analyses the variation in cataract patient pathways across Wales. In 2018, health boards collected PROM data (ICHOM cataract standard set) from patients before and after cataract surgery. Using a TDABC approach, the cataract patient pathway was mapped and the cost of each step calculated (£615 per surgery on average).



Learning community (cont')

Approximately 70% of patients referred for surgery have the operation. *“If we can identify early in the process most of the 30% that do not have surgery and the 20% that do not improve after surgery, these patients would be placed in an alternative pathway that can meet their needs with improved outcomes at a lower cost”*, asserts Dr. Chris Blyth, Clinical Lead, Ophthalmology. The key learning is that pre-operative PROMs could enable earlier triage to the most appropriate and high value pathway⁴.



External collaborations

NHS Wales negotiated with Medtronic a first value-based contract in colorectal cancer, using a new care cycle based on enhanced recovery after surgery (ERAS). Reduced length of stay and cost per bed days are the two process indicators measured, with the payment to Medtronic being a percentage of the savings generated. The second outcome-based contract was for Medtronic's sacral nerve stimulation technology to treat faecal incontinence. This agreement involves an outcome-based payment model where the company is paid 12 months following implantation if it meets pre-agreed parameters upon benchmarks. *“Given the societal costs for this chronic disease, the expected savings between current and new care cycles are £38,000 (€45,000) per patient”*, estimates Adele Cahill, National Lead Value-Based Procurement⁵.

Highlights

NHS Wales is developing a nationwide HVC plan to measure patient outcomes and analyse them through a centralised data platform. PROMs are expected to be applied for triage in order to orient patients towards appropriate and high value care pathways. NHS Wales rolls out its implementation roadmap through HVC training at the crossroads of financial and medical expertise to disseminate a cultural shift at health system level.

1. Chief Medical Officer for Wales Annual Report 2019. Valuing our health.
2. Markins, M., Five Ways the Best Companies Close the Strategy-Execution Gap. Harvard Business Review, November 2017.
3. Interview with Helen Thomas, Director of Health Informatics at NHS Wales, on August 11, 2019.
4. Blyth C., et al., Using outcome data and costs to demonstrate 'Value' in our Cataract Service: reducing variation & using outcomes to support direct care and triage. Poster presented during the ICHOM conference 2019 Rotterdam
5. Interview with Adele Cahill, National Lead Value-Based Procurement, NHS Wales on August 12, 2019.

Implementing High Value Care in Europe

Private hospitals

Santeon

Context

Santeon is a Dutch group of seven private teaching hospitals. With a staff of 29,000 employees, Santeon delivers 11% of the nation's hospital care volume. Starting in 2016, the seven locations began working together to measure and compare outcomes, costs and relevant process indicators across five patient disease groups, including breast cancer¹.



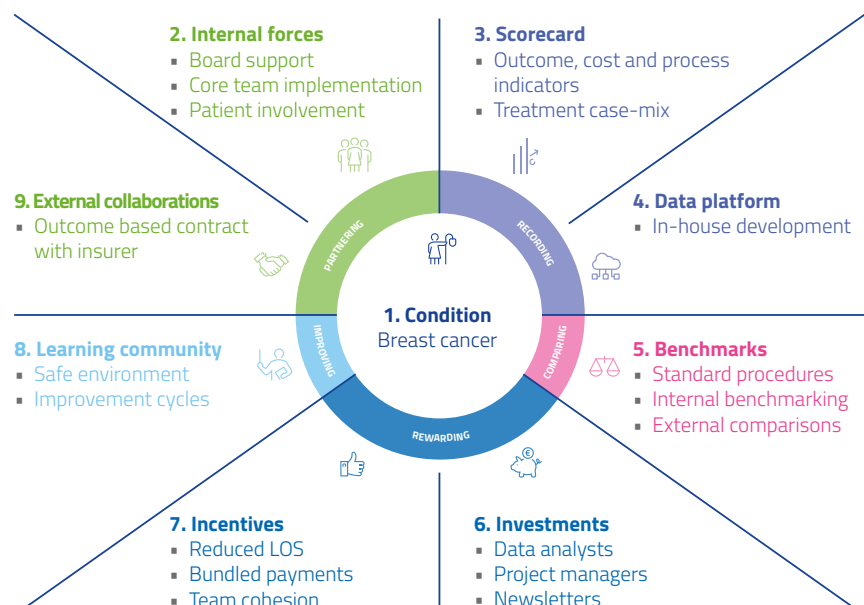
Achievements

In the 18 months after implementing its HVC plan for breast cancer, Santeon reduced reoperations due to complications by up to 74% at some locations, and unnecessary inpatient stays by nearly 30% across the seven hospitals².

Santeon achieved these results in just one and a half years by following clinical guidelines while also emphasising transparency and open benchmarks across medical teams³.

Implementation

Santeon adopted the same HVC model in all seven of its hospitals to enable benchmarking and leverage the network's combined expertise efficiently. Santeon's Implementation Matrix is presented here on the right.





Internal forces

At the group level, Santeon gathered a core team of three members to work on hospital alignment across the seven sites: a programme manager to direct the operation, a medical lead to head the development of the content and metrics, and a data analyst to work on data quality. At hospital level, Santeon established similar multi-disciplinary teams involving patient representatives to lead priorities and programme implementation onsite.



Scorecard

Multidisciplinary clinical teams selected 19 metrics that define value. Each team involved patients in defining key outcomes and processes. Improvement cycles of six months established a strict, simultaneous cadence for the teams in each hospital¹. The scorecard also provided researchers with a structured outcomes database that they could use to publish scientifically and statistically significant results over time (Table 1).

Table 1

Scorecard for breast cancer

Category	Indicator
Outcomes	<ul style="list-style-type: none"> 5-year survival rate, unadjusted (%) Repeat operations after a positive margin (%) Repeat operations after postoperative complications (wound infection or postoperative bleeding (%)) Unplanned admissions, deviation from treatment plan and/or heart failure after systemic therapy (%) PROM: quality of life, functioning, pain PROM: specific symptoms as a result of treatment (breast, arm, vasomotor)
Costs	<ul style="list-style-type: none"> Nursing days per patient (number of days) Primary breast conserving operation without hospitalisation (%) Operating room-time per patient (minutes) Outpatient clinic consultations per patient (number) Additional diagnostic activities per patient (MRI, PET, CT, MammaPrint) Use of expensive medicines
Processes	<ul style="list-style-type: none"> Duration from referral to first clinic visit Duration from first clinic visit to diagnosis (AP report) Duration from diagnosis (AP report) to discussion of the treatment plan Duration from discussion of the treatment plan to treatment commencement Dedicated contact person who supervises the patient and is known to the patient (%)
Treatment mix	<ul style="list-style-type: none"> Percent of patients per treatment option (e.g. breast cancer conserving, direct reconstruction)



Investments

Beyond financial investments, Santeon appointed central data analysts to align collection standards across hospitals, perform analyses and present outcome variation for Santeon-wide discussion. The core team developed a handbook to codify the model, ensure uniformity through standard operating procedures (SOPs) and provide harmonised guidance across the seven hospitals. The handbook described the purpose of each step in the improvement cycle, participants' roles and responsibilities, and strict rules regarding the quality and sharing of data.



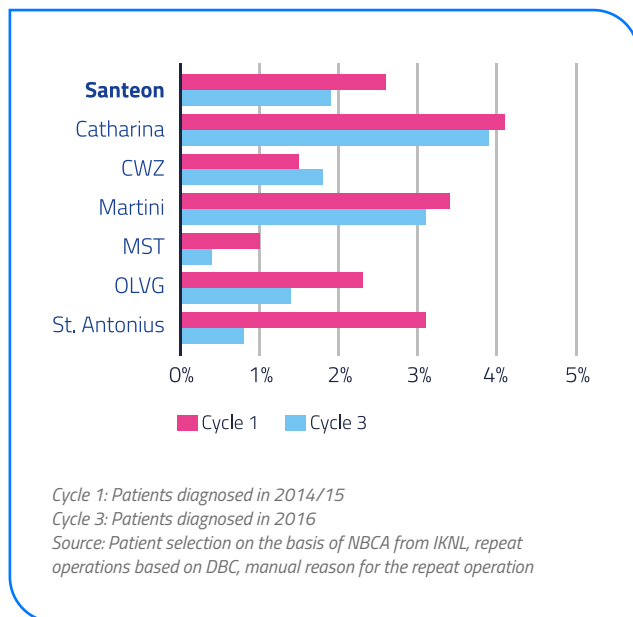
Benchmarks

Following cross-hospital meetings, hospital-level multidisciplinary teams met to discuss possible drivers of observed variation in outcomes relative to other Santeon hospitals. They asked whether variation is due to differences in data collection, patient mix or treatment choice. Medical professionals from the different hospitals would frequently reach out to each other to share best practices. The medical lead would discuss practices with the team and manage implementation of one action per cycle. The cycle then began anew³. Repeat operations due to complications (e.g. post-operative bleeding and wound infections) are challenging for patients and often mean that follow-up therapy, such as radiotherapy, must be postponed. Though the percentage of repeat operations due to complication was low at all Santeon hospitals (less than 4%), there was a 400% variation between the highest and lowest scoring hospitals. Improvement teams resolved to explore the reason for this variance.

Thanks to the safe, non-retaliatory nature of the data sharing environment they had created, they were able to look directly at the clinician level, and they found that the clinician with the lowest complication rate used more highly augmented wound flushing. After other surgeons adopted this methodology, reoperations due to complications fell by 27% across Santeon Hospitals, and by 258% at the St. Antonius hospital in particular, after just one and a half years. This improvement is a direct consequence of comparing each other's figures and methods² (Figure 1).

Figure 1

Reoperations due to complications²



Learning community

The existence of a safe learning environment was critical to discovering the drivers behind outcome variation. Fear of negative reactions to poor results would stifle the incentive to promote transparency and share data. Teams took a collaborative approach and used data not to judge one another, but to develop best practices based on observed, clinically relevant differences. Confidential sharing also helped teams to gain familiarity with the value-driven nature of their work and to highlight areas where improvement was possible. Three Santeon hospitals investigated what could be done to treat a higher percentage of breast cancer lumpectomy patients in the outpatient setting in order to both improve patient experience and minimise unnecessary costs. After an initial improvement cycle, teams tested several hypotheses and concluded that two main factors were responsible for preventing the patient from returning home. First, patients were often not informed that they would be returning home the day of surgery. When patients were informed in advance, they were able to make the necessary arrangements. Second, teams at St. Antonius found that postoperative morphine prevented a large number of patients from going home the day of surgery. Morphine-induced nausea prolongs hospital stay. Now, patients receive a nerve block before an operation so that the patient is pain free for the first 24 hours following surgery. Prioritising the use of a locoregional anaesthesia combined with paracetamol helped to improve the percentage of patients able to return home the same day, without affecting patient outcomes. Changes in these two areas led to an 18% increase in outpatient surgeries after one year.

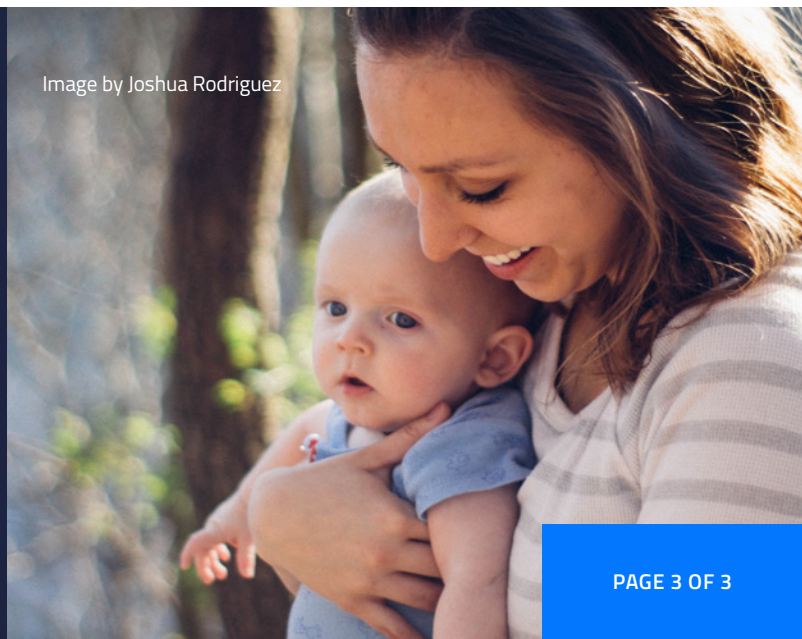
Highlights

Santeon succeeded in creating a learning community of hospitals where clinician-level data could be shared transparently without fear of punishment or retaliation, making value-based improvement possible.

References:

1. Santeon site visits at Maastad hospital (May 3, 2019) and St Antonius hospital (October, 2019).
2. Santeon Report 2017 – Better Breast Cancer Care Through Collaboration Santeon: Rotterdam.
3. BCG Report 2018 How Dutch Hospitals Make Value-Based Health Care Work.

Image by Joshua Rodriguez



Implementing High Value Care in Europe

Public hospitals

Uppsala Academic Hospital

Context

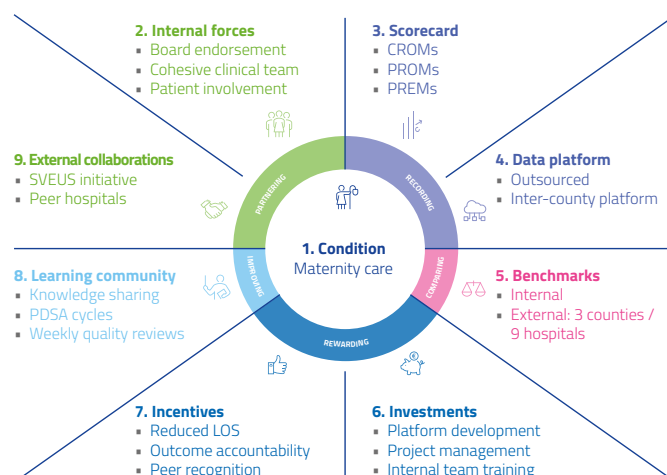
Uppsala University Hospital is a large academic hospital in Sweden. With 8,300 employees and nearly 360,000 outpatient visits annually¹, it provides highly specialised care for complex and rare pathologies in a catchment area of over 2.2 million Swedes (20% of the population). In 2013, Uppsala launched 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.





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.

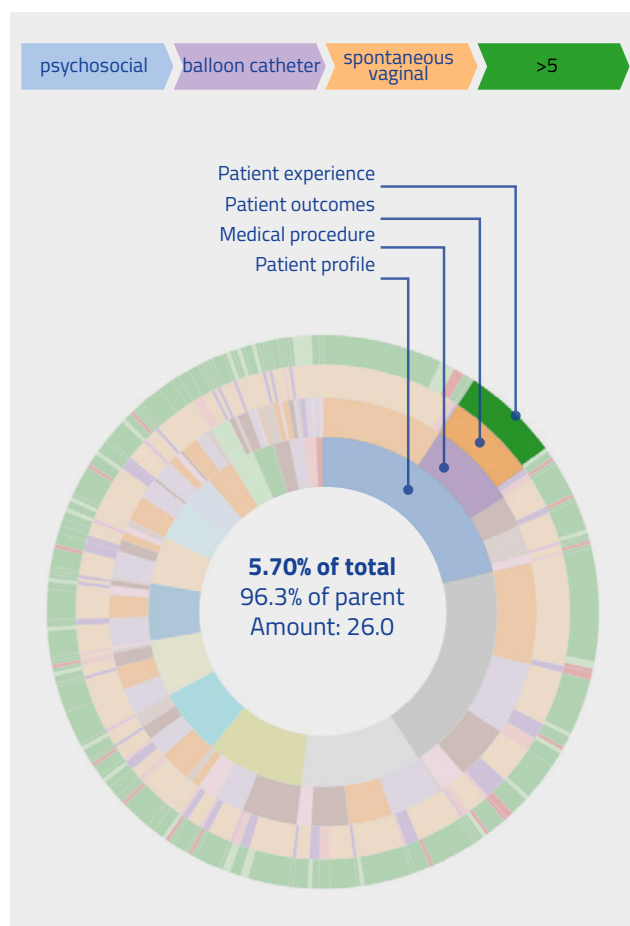


Data platform

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 benchmarking² (Figure 1).

Figure 1

Maternity case mix segmentation tool at Uppsala Academic Hospital





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

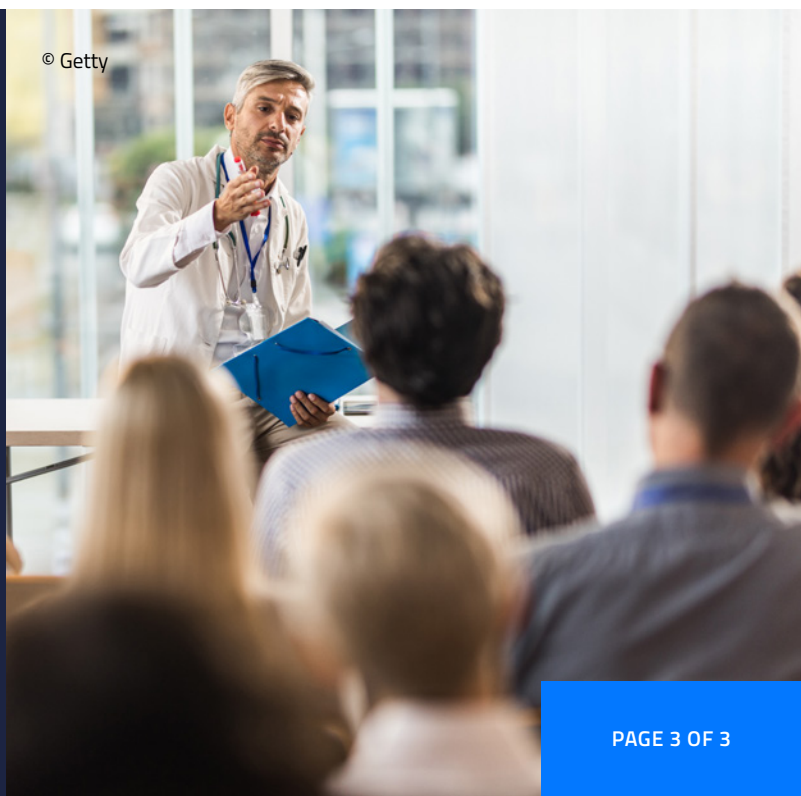
"Dissemination of quality management is greatly facilitated if you connect with people and with the support of reliable and transparent quality data", says Kildal. "HVC is about empowering teams to take change by the hand."

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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Educational resources: videos

EIT Health new strategic initiative – Short video

Additionally, an educational video on the initiative has been produced to explain to the network the importance of this new strategic positioning of EIT Health. The short video can be found here.



<https://vimeo.com/462716488>

It is key to position EIT Health High Value Care Forum as a collaborative initiative that wants to move the needed for value based healthcare practical implementation. To do that, we had to facilitate the understanding to all involved parties, from partners, to patients and carers, but also policy makers and the lifescience industry. This resources are thought for that.

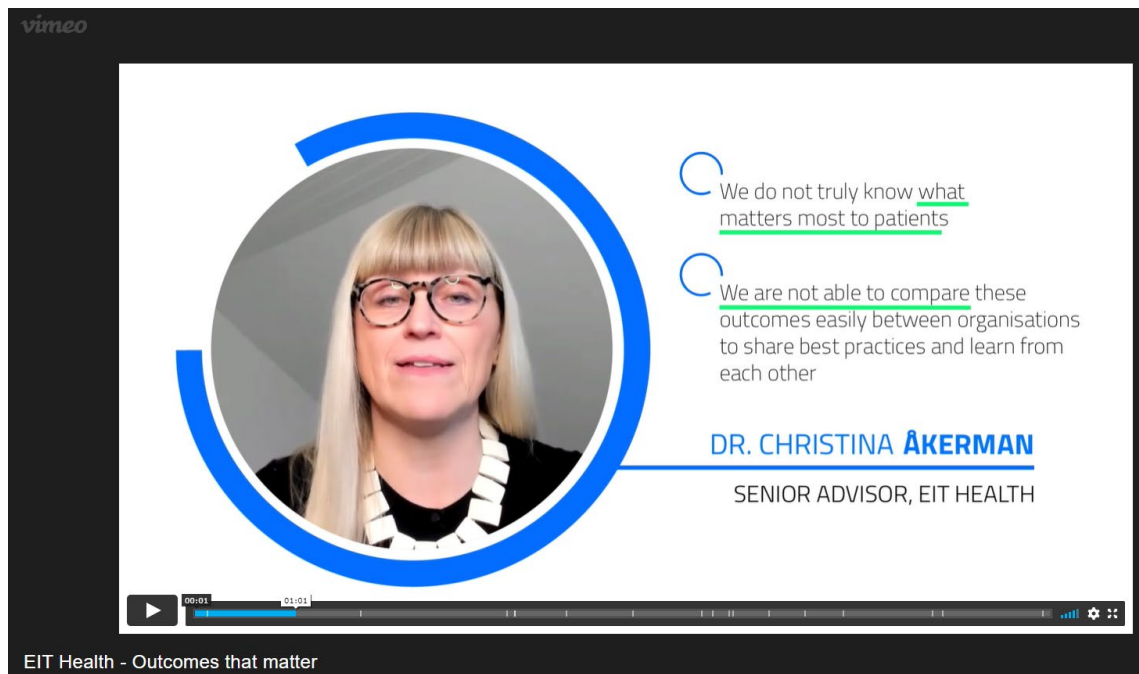
Outcomes that matter most to patients – Long video

EIT health goals are to make societal impact through contributing to better health, stronger health systems and a competitive health economy. To make this happen it is central to define the health outcomes that matter most to patients based on an early patient and citizen

engagement making sure that developments within the health sector actively involve the people they are intended to serve.

To achieve that and support our partnership in their journey, a longer, more detailed training resource focused on “Outcomes that Matter most to patients” has also been developed.

The ambition for this one is to allow partners and innovators in Europe to have an initial understanding of the reasons why measuring the outcomes that really matter to patients is as important as measuring the clinical or process outcomes that are currently standard measures.

A screenshot of a Vimeo video player. The video content shows a woman, Dr. Christina Åkerman, speaking. To her right, there are two bullet points: "We do not truly know what matters most to patients" and "We are not able to compare these outcomes easily between organisations to share best practices and learn from each other". Below the bullet points, her name "DR. CHRISTINA ÅKERMAN" and title "SENIOR ADVISOR, EIT HEALTH" are displayed. The video player interface includes a play button, a progress bar, and a timestamp of 00:01. The title "EIT Health - Outcomes that matter" is visible at the bottom of the player.

DR. CHRISTINA ÅKERMAN
SENIOR ADVISOR, EIT HEALTH

EIT Health - Outcomes that matter

<https://vimeo.com/homuork/review/495219103/dbac134048>



www.eithealth.eu

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