Quebec, September 11 2025

Value-Based Healthcare

Developments and lessons from The Netherlands

PCSI 2025


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VBHC in itself simple..

Principles of value-based healthcare

- Value **cannot be understood** at the level of a hospital, specialty, intervention, or for overall primary care
- Value is created in caring for a patient's **medical condition** over the **full cycle of care**

$$\text{Value} = \frac{\textbf{Set of outcomes} \text{ that matter to patients}}{\textbf{Total costs} \text{ of delivering these outcomes over the full care cycle}}$$

- The most powerful single lever for reducing cost and improving value is **improving outcomes**

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But the implementation is not simple

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This scoping review shows the orginal value agenda expanded

With new agenda items:

- Shared decision making
- Culture, education
- Value improvement

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The new items are adopted in the extended value agenda.

The new strategic agenda for value transformation, van der Nat PB, Health Services Management Research, 2021

Cultural change is at the center of value-based healthcare

1. From feeling responsible for **your part** of the care process to feeling responsible for the **outcomes**
2. From delivering care to delivering and continuously **improving care**
3. From hierarchy to a flat, **decentralized** organization
4. From closed off to open and **transparent** reporting
5. From a fixed structure to a **learning organization**
6. From data as administrative burden to '**data analyst** as **key member** of the multidisciplinary team'
7. From organizational responsibility to **regional responsibility**

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An example: Santeon

Santeon is a learning system of seven teaching hospitals with national coverage in the Netherlands

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Together, we are the largest provider of hospital services in the country

35.600
employees

2.100
physicians

1.000
residents

10.100
nurses

379.000
hospital admissions

11%
national volume hospital care

114.000
surgeries

3.1 billion
revenues

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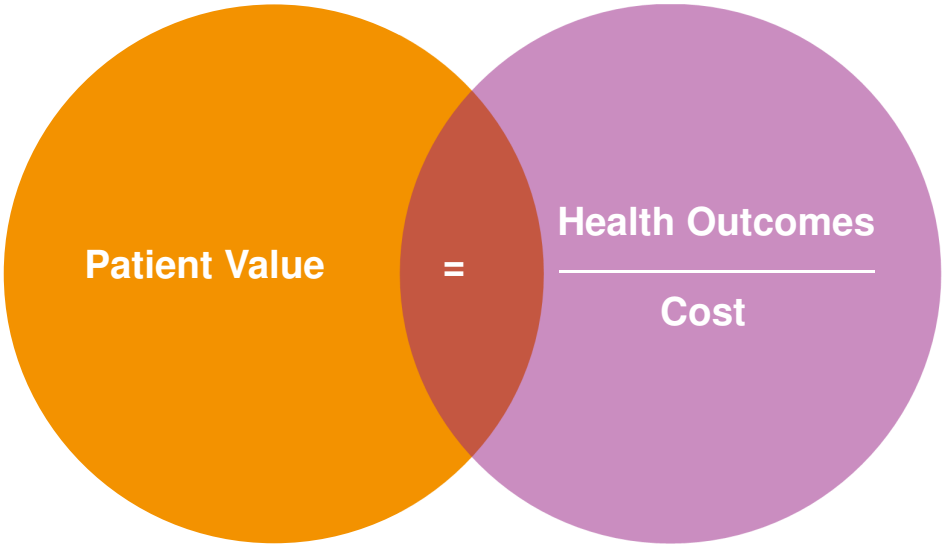
Value-based healthcare is our guiding principle



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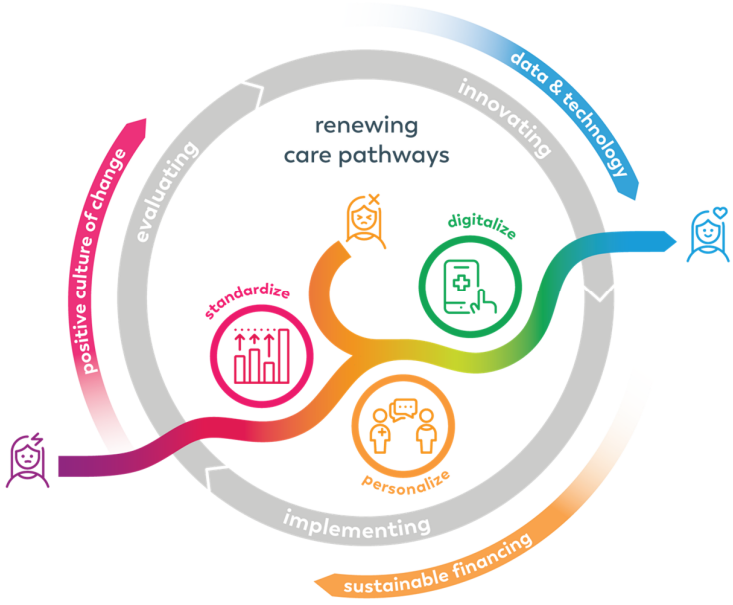
Santeon - approach to change

What we are very good at

Renewing care pathways for a value-driven patient journey.



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We have multidisciplinary improvement teams around medical conditions in each hospital

- Patient(s)
- Surgeon
- Pathologist
- Radiotherapist
- Oncologist
- Plastic surgeon
- Nurse practitioner
- Radiologist
- Nurse
- Pharmacist
- Project leader
- Data manager and analyst

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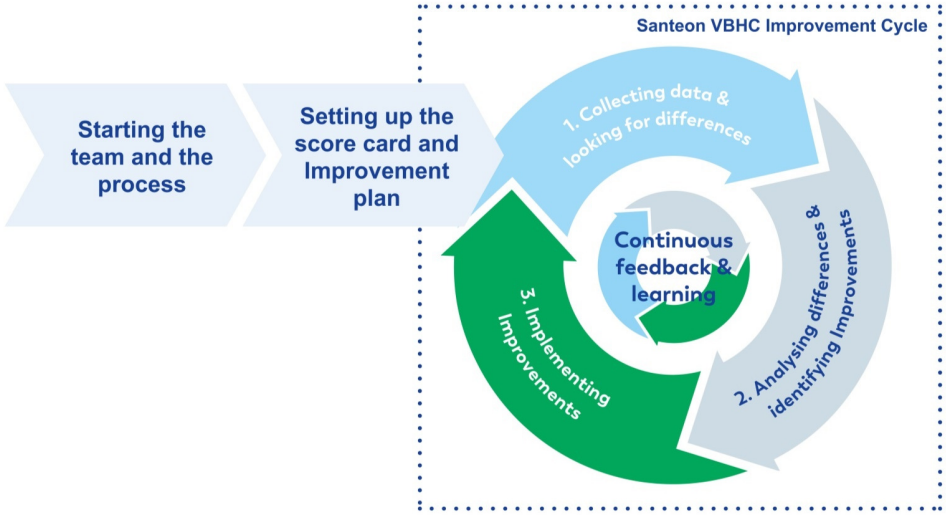
We run a standardized improvement cycle across our seven hospitals



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Based on standardized scorecards

Outcomes	U1	5-year survival, uncorrected
	U2	Reoperation due to positive margins (%)
	U3	Reoperation after postsurgical complications (%)
	U4	Non-surgical complications (%, per type)
	U5	PROMs: Quality of life (including pain, functioning)
	U6	PROMs: Specific conditions resulting from treatment
	U7	Local or regional recurrence within 5 years (%)
Costs	K1	# treatment days per patient / Length of Stay
	K2	% outpatient care for breast saving treatment
	K3	OR-time per patiënt
	K4	# outpatient visits per patient
	K5	# diagnostic activities (MRI, PET, CT) per patient
	K6	Use of expensive medications
Processes	P1	# days from referral to 1st outpatient visit
	P2	# days from 1st outpatent visit to diagnosis
	P3	# days from diagnosis to treatment plan
	P4	# days from treatment plan to start treatment
	P5	% patients informed about consequences of treatment
	P6	% patients assigned with one point of contact

For 20+ medical conditions

- Breast cancer
- Prostate cancer
- Lung cancer
- Colorectal cancer
- Hip osteoarthritis
- Cerebrovascular accident (stroke)
- Chronic kidney disease
- Pregnancy and birth care
- Rheumatoid Arthritis
- Coronary Artery Disease
- Inflammatory Bowel Disease
- Diabetes
- Hip fracture
- Knee osteoarthritis
- COVID-19
- Frail elderly
- COPD
- ..

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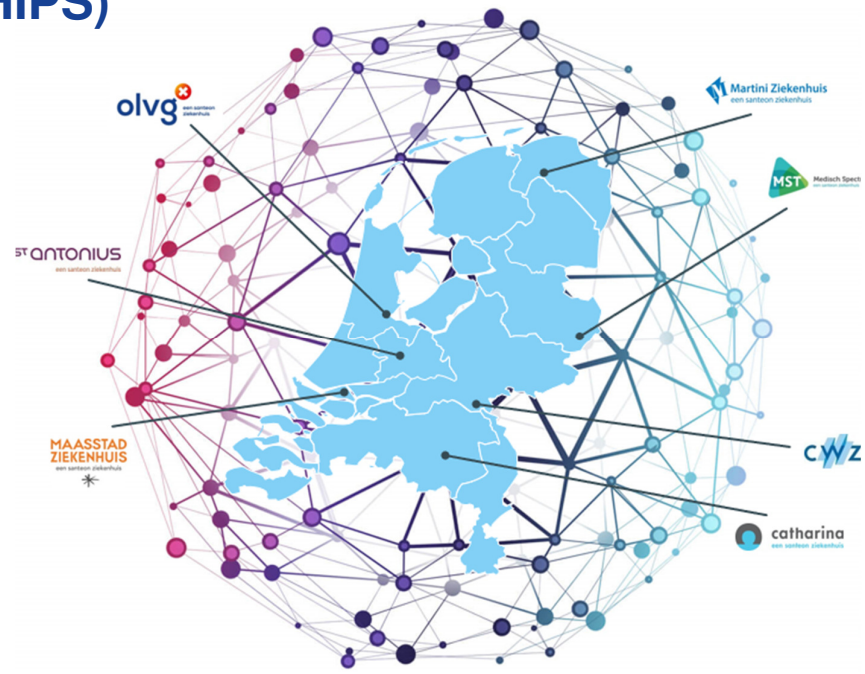
VBHC is supported by our Health Intelligence Platform Santeon (HIPS)



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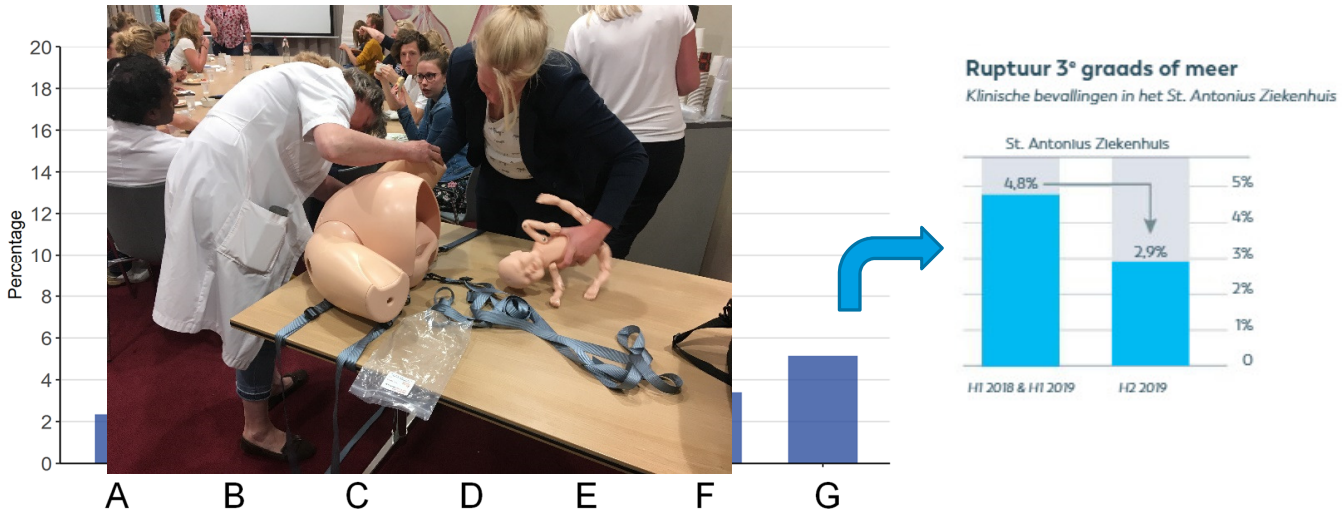
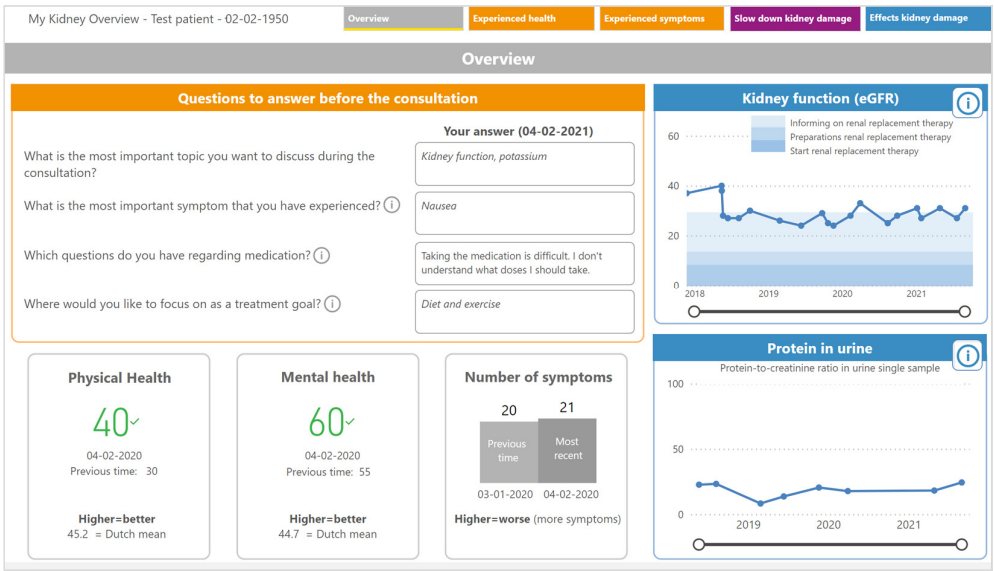
Improvements – birth care

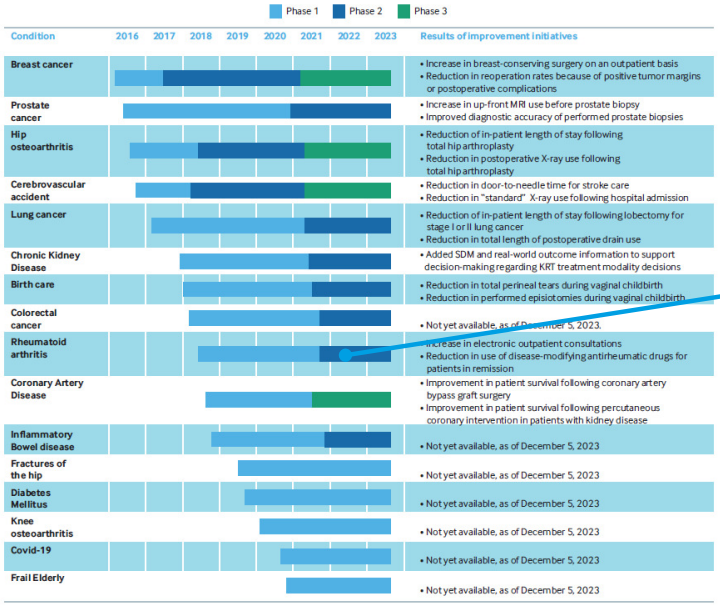


Improvements – chronic kidney failure



Optimizing the use of patients' individual outcome information – Development and usability tests of a Chronic Kidney Disease dashboard, van der Horst et al. Int J Med Inform (2022)

Results are publically available

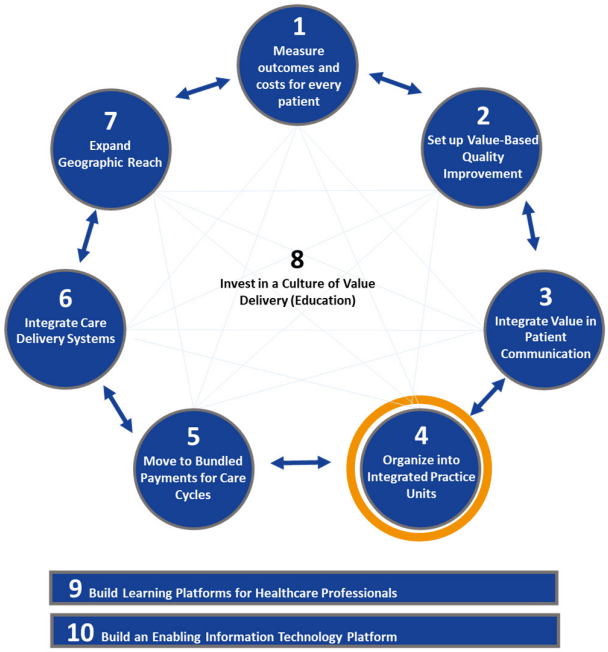


Santeon's Lessons from a Decade of Implementing Value-Based Health Care, N Engels et al, NEJM Catalyst (2024)

Lessons learned

1. **Transparency and trust is essential** (within teams, between teams, between care providers along the care delivery value chain, and between health insurers, healthcare providers and industry)
2. It's about the patient — and **with the patient**
3. We **proudly copy** from (each) other
4. It's hard work – data-driven improvement takes time to learn – but it's absolutely **worth it**
5. Improving outcomes does **lower costs** – but cost improvements often cannot be 'cashed'
6. **Value-based redesign of organizations is needed** (formalizing the organization around medical conditions in addition to the organization around functional departments) .

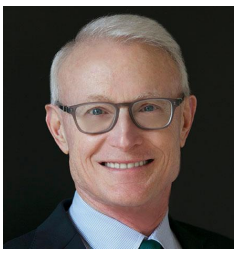
Let’s deep dive into IPUs.



The new strategic agenda for value transformation, van der Nat PB, Health Services Management Research, 2021

Patients suffer from fragmentation of care

Porter proposed the IPU



1. Organize care around a medical condition
2. Health provided by a multidisciplinary team
3. Care provided on the same location for a specific patient group
4. Full responsibility for the entire care delivery chain
5. Formal leadership (medical specialist and healthcare provider)
6. Responsiblity for logistics and finance (P&L)
7. Measuring outcomes, processes, satisfaction and costs
8. Accountability for outcomes and costs

Integrated Practice Units: A Playbook for Health Care Leaders, M Porter & T Lee, NEJM Catalyst (2021)

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However, this was really a vision of what could be…

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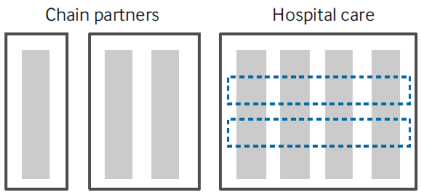
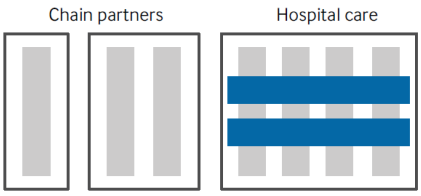
Reality: four archetypes of condition-based organization of care

1. Multidisciplinary project team

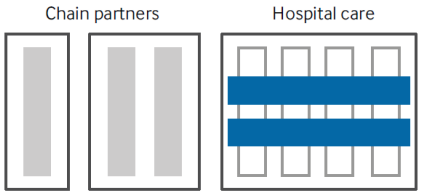


2. Matrix organization



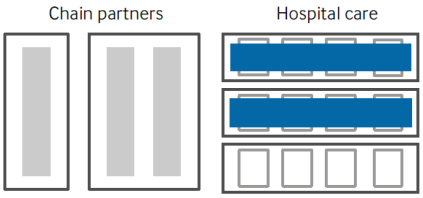
Vertical and horizontal structure are equally important

3. Integrated Practice Unit



Vertical, functional structure becomes secondary

4. Independent treatment center



Organizing Care Around Conditions: An Expanded Model of Value-Based Health Care, J Wiersema, C Bresser, P.B. van der Nat, NEJM Catalyst (2023)

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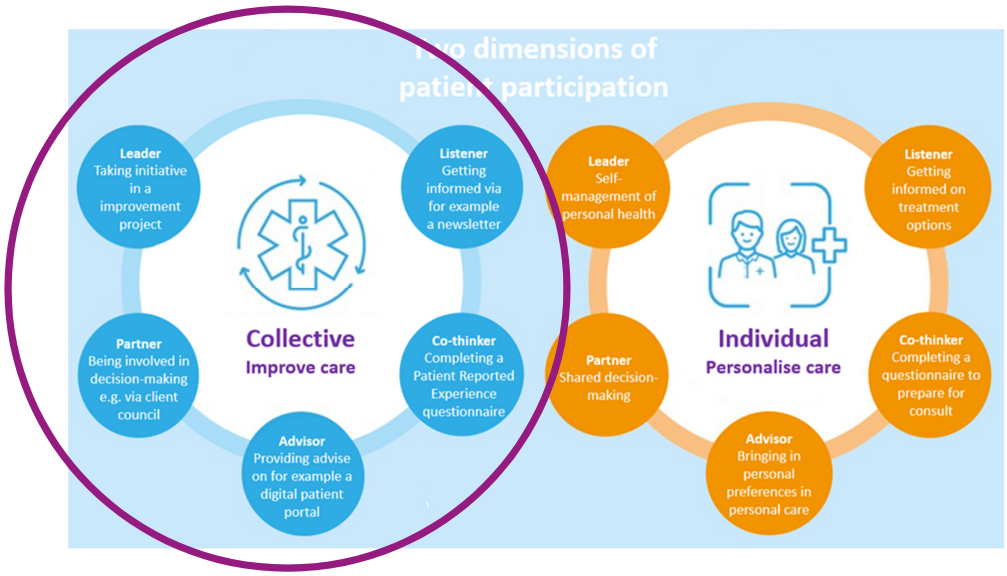
On to patient participation



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International perspective: very limited involvement of patients in VBHC

The immaturity of patient engagement in value-based healthcare—A systematic review

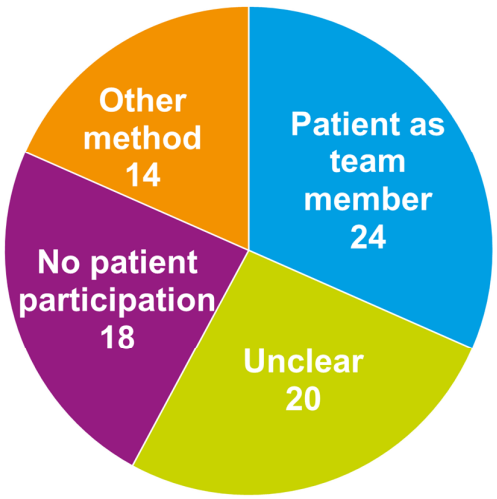
Michael van der Voorden[1*†], Wim S. Sipma[2†], Margriet F. C. de Jong[3], Arie Franx[1] and Kees C. T. B. Ahaus[2]

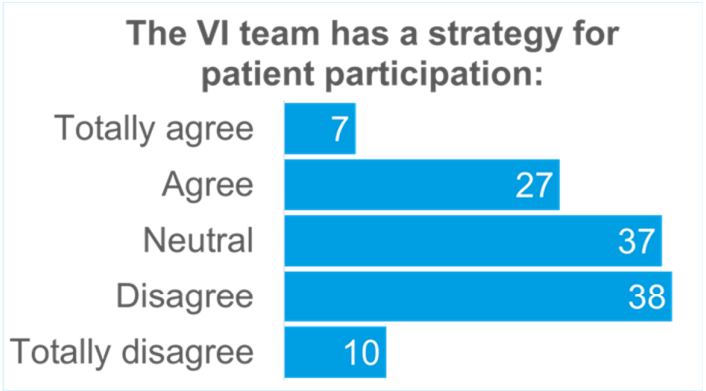
[1]Department of Obstetrics and Gynaecology, Erasmus University Medical Centre, Rotterdam, Netherlands, [2]Department of Health Services Management & Organisation, Erasmus School of Health Policy & Management, Erasmus University Rotterdam, Rotterdam, Netherlands, [3]Department of Nephrology, University Medical Centre Groningen, Groningen, Netherlands

Front Public Health. 2023;11:1144027. doi:10.3389/fpubh.2023.1144027

Finally, everyone around the table

Evaluation of current state of patient participation in improvement teams





Westerink HJ, Garvelink MM, van Uden-Kraan CF, et al. Evaluating patient participation in value-based healthcare: current state and lessons learned. Health Expect. 2023; 27:e13945. doi:10.1111/hex.13945

We aimed to improve patient participation via action research

1. We worked together with 7 value improvement teams to improve patient participation.

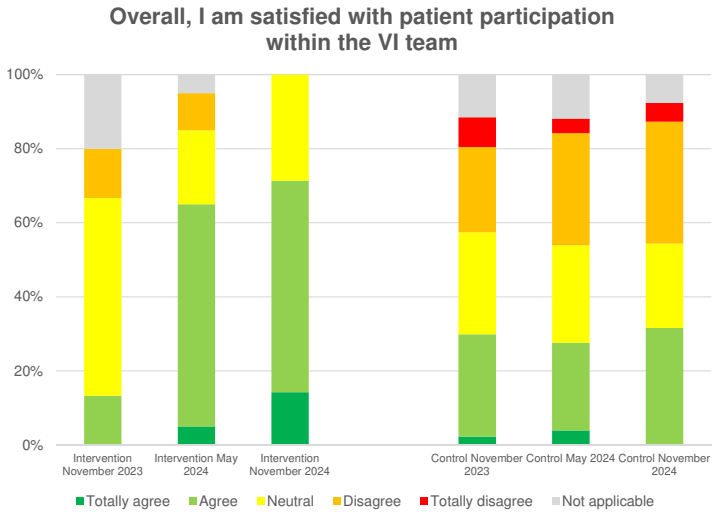
No.	
1	Prostate cancer
2	Breast cancer
3	Colon cancer
4	Diabetes
5	Kidney failure
6	Vulnerable elderly
7	Birth care

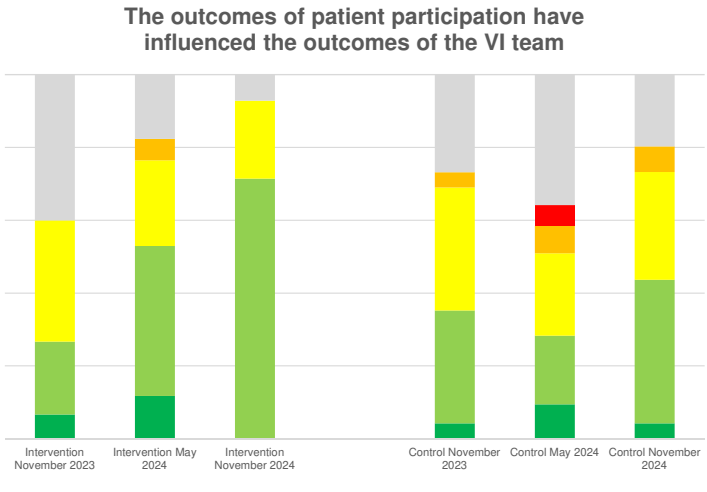
2. The goals and methods for patient participation in each value improvement team were discussed

3. Different actions to improve patient participation have been implemented: e.g. a patient panel, focus group, or questionnaire

4. The actions in improving patient participation were evaluated to identify barriers and facilitators

Results action research





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Five key learnings in improving patient participation:

1. Preconditions:

Team maturity
- Organize care around patient groups
- Structural team meetings
- Responsibility for care for a specific patient group

Organizational support
- Practical support needed for organizing patient participation

2. Strategy:

Select a method
- Based on goal and patient characteristics

3. Preparation:

Awareness
- Patients are not always seen as stakeholders in value improvement teams

Knowledge
- Limited knowledge on methods for patient participation
- Need for training

4. Action:

Integral aspect of value improvement
- Patient participation is often seen as separate agenda item

5. Evaluation:

Measure impact
- Evaluation of impact
- Share the outcomes with patients

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However…

We have more attention for the what

What are we going to change/implement?

Than for the how-question

How are we going to accomplish that change?

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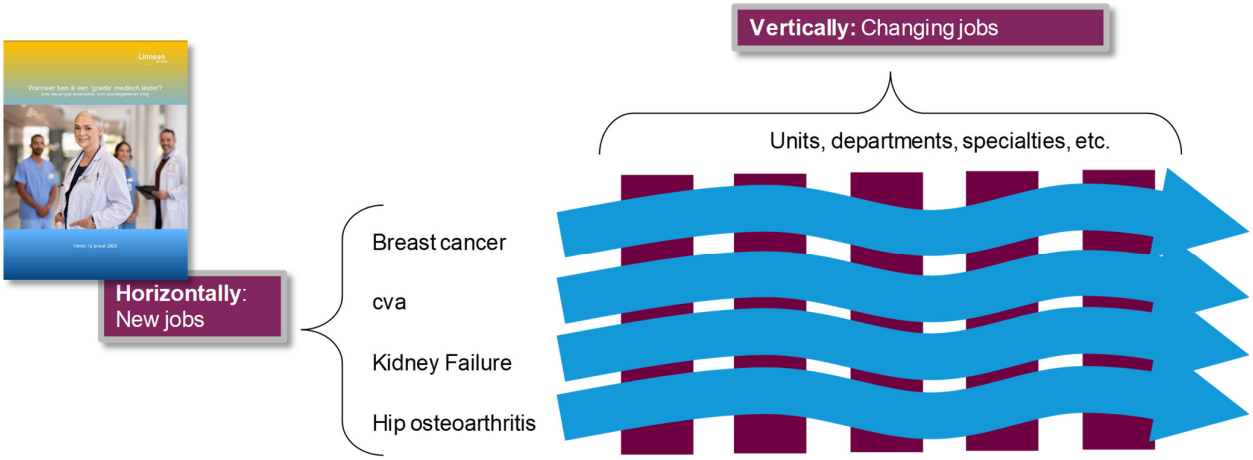
Change management – topics to address

1. Technical perspective: implement the strategic agenda, measure outcomes, etc.
2. Governance perspective: move from pilot, to project, to program, to anchoring in the organization
3. Bottom-up or top-down? Bottom-up AND Top-down. Bottom-up experimenting, top-down programmatic approach and scaling up.
4. Integration perspective: integrate with overlapping programs: Lean, Shared-Decision making, Choosing Wisely, Digitalization of Care, Quality department, …
5. People perspective: VBHC changes everyone's job. How and when are physicians, executives, nurses, management, data analysts, GPs, etc. involved?

Leadership change



Lesson 1: we need research to support the transition to value-based healthcare.

New since 2024: The Santeon Research Agenda

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Growing amount of papers on value-based healthcare implementation in hospitals…but it is slow learning..

van Engen et al.
Health Research Policy and Systems (2024) 22:94
https://doi.org/10.1186/s12961-024-01181-z

Health Research Policy and Systems

RESEARCH Open Access

A decade of change towards Value-Based Health Care at a Dutch University Hospital: a complexity-informed process study

Veerle van Engen[1*], Martina Buljac-Samardzic[1], Rob Baatenburg de Jong[2], Jeffrey Braithwaite[3], Kees Ahaus[1], Monique Den Hollander-Ardon[4], Ingrid Peters[4] and Igna Bonfrer[1]

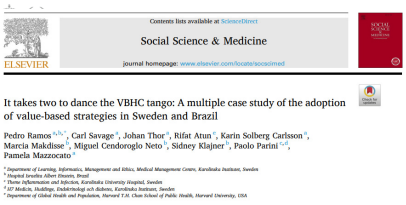
Nilsson et al. BMC Health Services Research (2017) 17:169
DOI 10.1186/s12913-017-2104-8

BMC Health Services Research

RESEARCH ARTICLE Open Access

Experiences from implementing value-based healthcare at a Swedish University Hospital – an longitudinal interview study

Kerstin Nilsson[1*], Fredrik Bååthe[2], Annette Erichsen Andersson[2], Ewa Wikström[3] and Mette Sandoff[3]


Contents lists available at ScienceDirect
Social Science & Medicine
journal homepage: www.elsevier.com/locate/socscimed

It takes two to dance the VBHC tango: A multiple case study of the adoption of value-based strategies in Sweden and Brazil

Pedro Ramos, Carl Savage, Johan Thor, Rifat Atun, Karin Solberg Carlsson, Marcia Makdisse, Miguel Cendoroglo Neto, Sidney Klajner, Paolo Parini, Pamela Mazzocato

NEJM Catalyst | Innovations in Care Delivery

IN DEPTH

Santeon's Lessons from a Decade of Implementing Value-Based Health Care

Noel Engels, MD, Willem Jan W. Bos, MD, PhD, Anne de Bruijn, MSc, Roald van Leeuwen, MSc, Nardo J. M. van der Meer, MD, PhD, MBA, Cornelia F. van Uden-Kraan, PhD, Pieter de Bey, MBA, MSc, Paul B. van der Nat, PhD

Vol. 5 No. 1 | January 2024
DOI: 10.1056/CAT.23.0232

Daniels et al. BMC Health Services Research (2022) 22:1271
https://doi.org/10.1186/s12913-022-08563-5

BMC Health Services Research

RESEARCH Open Access

Five years' experience with value-based quality improvement teams: the key factors to a successful implementation in hospital care

Kirsten Daniels[1,2*], Marc B. V. Rouppe van der Voort[1,3], Douwe H. Biesma[4,5] and Paul B. van der Nat[1,2]

Open access Original research

BMJ Open

Lessons learned on the experienced facilitators and barriers of implementing a tailored VBHC model in a Dutch university hospital from a perspective of physicians and nurses

Dane Lansdaal, Femke van Nassau, Marije van der Steen, Martine de Bruijne, Marian Smeulers

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Lesson 2: Healthcare providers need to learn from each other.

New since 2024: The Value Catalyst

An international **learning community** of 10 leading hospitals

Speeding up and **scaling up** implementation of vaue-based healthcare

Practical focus on **local implementation**

Identify **best practices** and failures

Supported by science and a systematic learning cycle

Dilemma of Scale: How to avoid increasing 'scale inequity' as a result of a focus on medical conditions?

1. Patient volume leads to better outcomes (practice and experience)
2. Patient volume allows for better value improvement (organizational learning, better data)
3. Condition-based units are set up for conditions with higher patient volume, leading to better patient services, quicker adoption of innovation like digitalization, SDM, regional collaboration, etc.

Practical consequential question: how to make sure that VBHC implementation reaches all patients and all healthcare professionals equally?

Thank you!

Paul van der Nat
p.van.der.nat@antoniusziekenhuis.nl

Further reading? Try my top 10 publications!

1. Organizing Care Around Conditions: An Expanded Model of Value-Based Health Care, NEJM Catalyst, J Wiersema et al. (2023)
2. The new strategic agenda for value transformation, Health Services Management Research, PB van der Nat (2021)
3. Santeon's Lessons from a Decade of Implementing Value-Based Health Care, NEJM Catalyst, N Engels et al. (2024)
4. Redesigning value-based hospital structures: a qualitative study on value-based health care in the Netherlands, BMC Health Services Research, G Steinmann et al. (2022)
5. Evaluating patient participation in value-based healthcare: Current state and lessons learned, Health Expectations, J Westerink et al. (2023)
6. Five years' experience with value-based quality improvement teams: the key factors to a successful implementation in hospital care, BMC Health Service Research, K Daniels et al. (2022)
7. Mapping the extent, range and nature of research activity on value-based healthcare in the 15 years following its introduction (2006–2021): a scoping review, BMJ Open JRG Vijverberg et al. (2022)
8. Health Outcomes Management Evaluation—A National Analysis of Dutch Heart Care, European Heart Journal - Quality of Care and Clinical Outcomes, PB van der Nat et al. (2021)
9. Value-based healthcare implementation in the Netherlands: a quantitative analysis of multidisciplinary team performance, J Westerink et al. (2024)
10. Development of an international, multidisciplinary, patient-centered Standard Outcome Set for Multiple Sclerosis: The S.O.S.MS project, Multiple Sclerosis and Related Disorders, K Daniels et al. (2023)