Value-Based Health Care: Moving toward its implementation in Swiss hospitals

Doctoral Thesis in Medicine (MD)

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Department of Community Health
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Value-Based Health Care: Moving toward its implementation in Swiss hospitals

THESIS

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Summary / résumé

Contexte

La transformation des systèmes de santé vers des modèles basés sur la valeur, appelés Value-Based Health Care (VBHC), est au cœur des réformes sanitaires dans de nombreux pays. Le VBHC met l'accent sur l'amélioration des résultats pour les patients plutôt que sur la quantité de soins prodigués, ce qui implique de nouvelles pratiques de gestion, de financement, et de coordination des soins. Malgré un environnement propice à l'innovation en Suisse, les hôpitaux sont confrontés à une adoption lente de ce modèle. En effet, la culture organisationnelle, les contraintes budgétaires et la structure du financement actuel sont souvent perçues comme des obstacles majeurs à la mise en œuvre du VBHC.

But de la thèse

Le but de cette thèse était de contribuer à une avancée vers la mise en œuvre du VBHC en Suisse en proposant des recommandations pratiques pour les décideurs hospitaliers et les responsables politiques. Afin d'identifier ces recommandations, nous avons mené deux études avec chacune un objectif spécifique :

1. Décrire les perceptions de l'intérêt du VBHC ainsi que les leviers et barrières perçus par des parties prenantes clés du système de santé Suisse.
2. Cartographier les définitions et les modalités opérationnelles du VBHC décrites dans la littérature internationale.

Méthodes

Afin de répondre au premier objectif, nous avons utilisé une approche qualitative pour la collecte et l'analyse des données. L'échantillonnage a ciblé des acteurs du système de santé suisse ayant une expertise ou a minima une connaissance du VBHC, et occupant des rôles variés au sein du système de santé parmi lesquels : patients, cliniciens hospitaliers, directeurs d'hôpitaux, responsables de la qualité des soins, ainsi que représentants de la Commission fédérale de la qualité, tous ayant une formation et/ou une expérience en VBHC.

La collecte des données été réalisée sous forme d'entretiens semi-structurés individuels (≈1h) sur la base d'un guide d'entretien. Les thèmes ont porté sur les expériences et connaissances du VBHC, les bénéfices et limites perçus, les obstacles et leviers, ainsi que la vision de l'avenir du VBHC en Suisse.

Une analyse thématique, déductive et inductive des entretiens, a été conduite afin d'extraire les principaux thèmes émergents des données. Les résultats ont été analysés sous l'angle de plusieurs facteurs, tels que la culture hospitalière, les politiques de santé publique, les incitations financières, et la coordination des soins entre les différents professionnels de santé.

Afin de répondre au second objectif, nous avons réalisé une revue de la littérature sous forme d'une scoping review, en utilisant la méthode d'analyse systématique de la littérature PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses). La recherche documentaire a été effectuée dans PubMed, sans restriction de date de publication, en utilisant le terme MeSH « Value-based health care ». Les critères d'inclusion étaient les suivants : les articles devaient se référer à une définition du VBHC et/ou une opérationnalisation du VBHC du point de vue hospitalier dans les pays à revenu élevé (l'opérationnalisation était entendue comme la transformation de concepts abstraits en observations mesurables), et devaient être publiés en anglais ou en français. Les données extraites ont été présentées sous forme de tableaux et de représentations visuelles. Elles ont été catégorisées selon les composantes de la définition du VBHC et les critères d'opérationnalisation. Les critères issus des cadres de références (« frameworks ») existants ainsi que des critères supplémentaires ont été recueillis. La synthèse des résultats a été organisée autour de deux perspectives : celle des hôpitaux et celle des systèmes de santé.

Résultats

Nous avons conduit 10 entretiens semi-directifs auprès de différents acteurs du système de santé en Suisse : trois patients, deux médecins cliniciens, deux professionnels de la qualité, un responsable hospitalier de la valeur en santé, un professionnel de l'assurance, un directeur d'hôpital. Tous les participants se référaient à la définition du VBHC de Michael Porter, mettant l'accent sur les résultats pour les patients plutôt que sur le coût des prestations : la valeur créée étant définie comme le résultat qui compte pour les patients, rapporté au coût total nécessaire pour atteindre ce résultat. Les bénéfices perçus du VBHC incluaient une meilleure pertinence des soins, des relations soignant-patient plus partenariales, une collaboration accrue et un sens retrouvé pour les professionnels de santé. Les principaux freins perçus à la mise en œuvre du VBHC étaient : le manque de connaissance du concept parmi les parties prenantes, l'aversion au changement, les habitudes de travail en silos, le manque de transparence sur les résultats, les modalités de financement qui incitent au volume uniquement et l'insuffisance des outils digitaux et des cadres juridiques pour la collecte et le traitement des données.

Pour surmonter ces obstacles, les participants suggéraient plusieurs actions : mener des campagnes de sensibilisation et de formation pour toutes les parties prenantes, mettre en œuvre des expériences locales avec une approche de test et d'apprentissage avant une diffusion plus large, promulguer des réformes juridiques pour passer d'un système de prestation de soins basé sur l'assurance à un système de santé, et accroître la participation des représentants des patients.

Nous avons inclus 36 études dans notre scoping review, dont 27 avaient une perspective hospitalière et 9 une perspective système de santé. Toutes les études

se référaient à la définition du VBHC de Michael Porter. Nous avons identifié 14 critères d'opérationnalisation du concept de VBHC. Le plus fréquemment cité était «la mesure des résultats et des coûts pour chaque patient » quelle que soit la perspective de l'étude. Les études qui adoptaient la perspective du système de santé, comparé à celles qui prenaient la perspective d'un hôpital, considéraient en moyenne plus de critères (10 vs. 3).

Sur la base des résultats des deux études menées, nous proposons plusieurs recommandations pratiques pour les décideurs hospitaliers et les responsables politiques, telles que la mise en place de formations ciblées sur le VBHC, l'amélioration des systèmes de gestion de la qualité et la révision des modèles de financement pour encourager une approche plus intégrée et centrée sur le patient.

Conclusion et implications

Cette thèse a mis en évidence, près de 20 ans après l'apparition de ce concept, l'existence d'un consensus sur la définition du VBHC en Suisse et au niveau international, correspondant à celle proposée par Michael Porter. Elle nous a également permis d'identifier des obstacles et des leviers associés à l'implémentation du VBHC dans les hôpitaux suisses. Nous avons mis en évidence que, bien que le modèle VBHC soit perçu positivement par les professionnels de santé, plusieurs facteurs entravent sa mise en œuvre effective, notamment le manque d'information et de formation, les habitudes de travail en silo, le manque de transparence sur les résultats et le système de financement hospitalier.

Enfin, cette thèse propose plusieurs recommandations pratiques pour les décideurs hospitaliers et les responsables politiques, telles que la mise en place de formations ciblées sur le VBHC, l'amélioration des systèmes de gestion de la qualité et la révision des modèles de financement pour encourager une approche plus intégrée et centrée sur le patient.

Chapter 1

Qualitative study: the views of VBHC in Switzerland

Chapter 1 | Qualitative study: the views of VBHC in Switzerland

The goal was to explore perceptions, experiences, and opinions of clinical and non-clinical stakeholders in the French-speaking part of Switzerland regarding facilitators and barriers to VBHC implementation.

Method

We applied a standard methodology (16) at each step of this study, including data collection process and analysis.

Target population and sampling

We used purposeful sampling based on group characteristics, targeting key individuals who have better-than-most understanding of VBHC, due to training and / or experience and maximum variation sample regarding their role in the health care system.

The following selection criteria have been applied:

• Stakeholders in the health care system in the French-speaking part of Switzerland

• Stakeholders with one of the following responsibilities:

1. quality of care management,
2. chief of clinical department medical doctor,
3. hospital CEO,
4. insurance VBHC project manager,
5. patient representative,
6. Swiss National Association for quality development in Hospitals and clinics representative
7. Federal Quality Commission representative

• French or English speaking

Based on these criteria, we directly solicited potential participants or via an intermediate contact when necessary. Participants were not paid. Interviews were conducted between April and July 2024.

Data collection

We used 1:1 semi-structured interview approach which included the following steps: preparation (eligibility criteria, recruitment process), design and test of the interview guide and informed consent, running the interviews, data analysis. We used the results of our first study (scoping review) as a reference for VBHC definition and operationalization.

The interview guide (appendix) included 5 questions for one-hour interviews investigating the following themes:

• experience and knowledge of VBHC,

• perspectives on benefits and limitations of VBHC,

• barriers and facilitators to VBHC implementation,

• vision for the future of VBHC implementation in Switzerland.

Analysis

We performed a thematic analysis of the interviews' data. Codes will be constructed deductively using the interview guide and supplemented inductively with information from the interviews. A codebook has been created to organize and define codes.

Results

We conducted 10 semi-structured interviews with diverse stakeholders in the Swiss healthcare system: three patients, two clinical physicians, two quality improvement professionals, one hospital value-based healthcare (VBHC) manager, one insurance professional, and one hospital director. All participants referred to Michael Porter's definition of VBHC, emphasizing patient outcomes over the cost of services. Value was defined as the health outcomes that matter to patients relative to the total cost required to achieve those outcomes.

All participants also perceived Patient-Reported Outcome Measures (PROMs) as a key lever for shared decision-making. The perceived benefits of VBHC included improved appropriateness of care, more collaborative patient-provider relationships, enhanced interdisciplinary cooperation, and a renewed sense of purpose among healthcare professionals.

The main barriers to VBHC implementation identified by participants were: limited awareness of the VBHC concept among stakeholders, resistance to change, siloed work practices, lack of transparency regarding outcomes, fee-for-service financing models that incentivize volume over value, and insufficient digital tools and legal frameworks for data collection and processing.

To address these challenges, participants proposed several actions: conducting awareness and training campaigns for all stakeholders, implementing local pilot projects using a test-and-learn approach before broader dissemination, enacting legal reforms to transition from an insurance-based service delivery system to a health system, and increasing patient representative involvement.

Limitations

Generalization of the results was low due to the chosen methodology, i.e. qualitative research. Participant selection process led to bias as we chose the participants we wanted to interview. We also encountered social acceptability bias: considering

VBHC as a new “fancy” trend, some participants could have answered inaccurately considering that they would be better accepted if embracing this innovation. The careful selection of the participants and adequate introduction of the interviews intended to mitigate this risk. Finally, the review of the questions and data analysis by the thesis supervisors lowered this risk of researcher bias, in order to take into account the experience of the main researcher in VBHC including in the MedTech industry.

Conclusion

Our findings revealed a strong consensus among stakeholders: VBHC was widely regarded as a promising model to transform the Swiss healthcare system, representing a fundamental shift from a provider-centric to a patient-provider relationship-centric paradigm. However, given the inherent complexity and fragmentation of the Swiss healthcare landscape, a gradual, long-term strategy - engaging all relevant stakeholders – was considered critical for successful implementation.

To operationalize this transition, stakeholders emphasized three immediate priorities: (1) raising awareness of VBHC principles across the system, (2) delivering targeted training to build capacity, and (3) launching localized pilot initiatives to test and refine VBHC approaches before scaling up. These steps were considered essential to overcome the identified barriers and harness the perceived benefits of VBHC, ultimately fostering a more patient-centred, efficient, and sustainable healthcare system.

Abstract accepted for a poster session at the International Consortium for Health Outcomes Measurement (ICHOM) Conference, Amsterdam, Netherlands, 21-22 October 2024

Value-Based Health Care: moving towards its implementation in Swiss hospitals

Introduction

Switzerland's quality of care is comparable to other advanced healthcare systems, yet it is significantly more expensive. The country spends $8094 per capita on health, far exceeding the OECD average of $4986, representing 11.3% of GDP compared to the OECD average of 9.2%. The Value-Based Healthcare (VBHC) model, which aims to maximize health outcomes relative to the total cost of services provided, offers a promising framework for transforming the Swiss healthcare system. This qualitative study explores the perceptions, experiences, and opinions of clinical and non-clinical stakeholders in Switzerland regarding facilitators and barriers to VBHC implementation, as part of a broader project that includes a scoping review.

Methods

A purposeful sample of Swiss healthcare stakeholders, including patients, hospital clinicians, hospital CEOs, quality of care managers, Federal Quality Commission representatives with VBHC training and/or experience, was selected. Semi-structured interviews explored four main themes: the definition and perception of VBHC, perspectives on its benefits and limitations, barriers and facilitators to its implementation, and visions for its future in Switzerland. A thematic analysis was conducted to identify common patterns and insights.

Results

Eight[1] interviews were conducted with three patients, one hospital CEO, one health insurer VBHC lead, two quality experts, and one clinician, with two more scheduled by the end of June 2024. All participants referenced Michael Porter's definition of VBHC, emphasizing patient outcomes over the total cost of delivering these outcomes. A key contribution of VBHC identified was the use of Patient Reported Outcomes Measures (PROMs), facilitating shared decision-making. Participants stressed that emphasizing patient outcomes is crucial when discussing VBHC, as the term "value" is often misunderstood as solely monetary. VBHC is seen as essential for transforming the Swiss healthcare system.

[1]This poster and its abstract were prepared before all interviews were completed. We subsequently conducted two additional interviews, bringing the total to ten. These final interviews did not reveal new themes but reinforced those identified in the initial eight interviews.

Participants perceived several benefits of VBHC, including shifting the goal from care delivery to health delivery, changing incentives from volume to appropriateness of care, transforming patient-provider relationships from mistrust to partnership, promoting organizational collaboration, improving healthcare professionals' sense of purpose, and transitioning resources from wasteful spending to wise spending.

However, several barriers to VBHC implementation were identified: lack of awareness and misunderstanding of the concept among stakeholders, aversion to change, entrenched habits of working in silos, poor transparency on outcomes, funding modalities that incentivize volume over integrated care, and insufficient technological systems and legal frameworks for data collection and treatment.

To overcome these barriers, participants suggested several actions: conducting awareness campaigns and training for all stakeholders, implementing local experiments with a test-and-learn approach before broader dissemination, enacting legal reforms to shift from an insurance-based care delivery system to a health system, and increasing patient representatives' participation.

Conclusion

Stakeholders unanimously perceive VBHC as the right model to transform the Swiss healthcare system, viewing it as a paradigm shift from focusing on care to focusing on health. Given the complexity of the fragmented Swiss healthcare system, a step-by-step, long-term approach involving all stakeholders is essential. Key priorities include raising awareness, providing training, and conducting local experiments.

Reference: Chabloz C, Chiolero A, Cullati C. Value-Based Health Care: moving toward its implementation in Swiss hospitals. ICHOM Conference 2024, Poster session

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Value-Based Health Care: moving toward its implementation in Swiss hospitals

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1 BACKGROUND

- The Swiss healthcare system is highly decentralized : each of the 26 cantons (states) organizes their care system which they co-fund together with private insurers. The health insurance is compulsory for each citizen. A special feature of the Swiss healthcare system is that the unique law regulating health is the Health Insurance Law.
- Quality of care in Switzerland seems equivalent to other advanced healthcare systems while much more expensive (Vincent & Staines, 2019; Swiss Health Observatory)
- Switzerland spends $8094 per capita on health, more than OECD average of $4986, which represents 11.3% of GDP, compare to 9.2% on average in the OECD (OECD, Health at a Glance 2023 - Country note Switzerland)
- The Swiss healthcare system requires a transformation to ensure financial sustainability and face quality challenges
- Value-Based Health Care (VBHC) model aims to maximize health outcomes for patients over the total cost of the services provided. It has the potential to improve the quality of patient care while reducing costs (Teisberg E et al. Defining and Implementing Value-Based Health Care: A Strategic Framework. Acad Med. 2020 May;95(5):682-685.)
- Although some local VBHC initiatives have been implemented in Switzerland, they did not widespread (Price Water Company, 2022)
- This work is part of a study aiming to explore VBHC as a potential approach in Swiss hospitals and propose specific key enablers to VBHC adoption

We aimed to explore the perceptions, experiences, and opinions of clinical and non-clinical stakeholders in Switzerland regarding the benefits, facilitators and barriers in adopting VBHC.

2 METHODS & PARTICIPANTS

- **A purposeful sample of stakeholders of the Swiss healthcare system** part of the following categories: patient, hospital's clinician, hospital CEO, quality of care manager, Federal Quality Commission representative, VBHC hospital lead. All participants had better-than-most understanding of VBHC, due to training and / or experience
- **Semi-structured interviews exploring perceptions on four themes:** definition & perception of VBHC, perspectives on benefits and limitations of VBHC, barriers and facilitators to VBHC implementation, vision for the future of VBHC implementation in Switzerland
- **Thematic analysis**. Codes have been constructed deductively using the interview guide and theoretical literature on VBHC and supplemented inductively with information from the interviews

Participants (n=10)

- 3 patients
- 2 quality experts
- 2 clinicians
- 1 hospital CEO
- 1 hospital VBHC lead
- 1 insurer VBHC lead

3 RESULTS

- **Definition & perception of VBHC: all participants are considering the definition of M Porter of VBHC -** the outcomes that matter to patients over the total cost to deliver these outcomes
  - A key contribution of VBHC is the systematic use of Patient Reported Outcomes Measures (PROMs) that is a concrete tool which allows shared decision-making
  - However, most consider that the numerator is the 1st step to VBHC implementation and must be emphasized when talking about the concept, because the word "value" is often understood as a monetary concept
    "I never talk about VBHC as a way of reducing healthcare spending, as in Switzerland decreasing health spending means decreasing health"
  - VBHC is considered as a conceptual framework for the necessary transformation of the Swiss healthcare system facing growing financial difficulties while still willing to maintain high quality standards.
- **The main perceived limit of VBHC concept**
  - Although the numerator and denominator of the definition are independently understood, the value equation is a less concrete concept
    "What is the unit of measurement for value?"
    "Cost measurement methodology seems very challenging and unclear"
- **The ideal vision of the future**

An integrated health system where healthcare professionals measure success based on PROMs, collaborate with other healthcare professionals and partner with patients. As a result, patients' outcomes and satisfaction and joy at work of the healthcare professionals will increase while global spending expenditures can be contained.
"In the perfect healthcare system, the patients 'voice will be integrated at every level of decision-making"

Perceived benefits of shifting to a Value Based Health Care system

Consequences		
Waste	System	Spending wisely
Overwhelm	Health care professionals	Purpose
Silos	Health care professionals	Collaboration
Mistrust	Patients-Providers	Partnerships & trust
Volume of care	Incentive	Appropriatness & Quality of care
Care delivery	Overarching goal	Health delivery

Perceived barriers & levers to shifting to a Value Based Health Care system in Switzerland

Barriers	Levers	
	What	How/ principles
1. **Frequent ignorance or misunderstanding** of the concept among actors, whatever their role : politics, clinicians, population	1.**Awarness campaigns & trainings** targeting all categories of stakeholders	• Co-building with all stakeholders
2. **Aversion to change**	2.**Test & learn** approach before dissemination	• On a voluntary basis
3. **Habits of silos**	3.**Necessary legal reform** to shift from care to health	• Step - by – step approach
4. **Culture** of low-level of transparency on outcomes	4.**Increase patient representatives participation** in projects	
5. **Funding modalities**		
6. **Technologies : IT and data protection**		

KEY MESSAGES

- **Value-based healthcare is perceived by all interviewed stakeholders as the right model to transform the Swiss healthcare system**
- **VBHC is perceived as a shift of paradigm from CARE to HEALTH**
- **Complexity of the fragmented Swiss health care system requires a step-by-step, long-term approach involving of all stakeholders**
- **Awareness and training are the priority actions as well as local experimentations according to Plan-Do-Check-Act model of implementation**

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Price Water Company, 2022

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Appendix

Guide d'entretien semi-directif

1. **Racontez-moi /parlez-moi de votre histoire/rencontre** avec le VBHC :
    - Comment avez-vous découvert le VBHC ?
    - Pourriez-vous expliquer ce qui vous a le plus marqué/intéressé ?
    - Pourquoi, quel écho avec votre activité, votre rôle ?

2. Pourriez-vous partager **point de vue sur le concept VBHC** :
    - A votre avis y a-t-il un intérêt pour votre organisation, quel serait son intérêt pour la Suisse ?
    - Indépendamment des problèmes d'implémentations, pensez-vous que le concept /l'idée générale du VBHC quelles sont les forces et faiblesses du concept ?

3. De votre point de vue, quels seraient les types d'**obstacles** à la mise en œuvre du VBHC ? pouvez-vous les décrire ?
    - Organisationnel
    - Culturel
    - Financier
    - Technologique
    - Autre

4. Selon vous, quels éléments pourraient contribuer à **faciliter la mise en œuvre** du VBHC en Suisse ?
    - Qu'est-ce qui serait **indispensable** de changer/ mettre en place ?
    - Y-a-t-il à votre avis une **action prioritaire** par laquelle commencer ?

5. Votre **vision idéale** dans 5 ans à 10 ans, si le VBHC était mis en œuvre largement en Suisse ?
    - Qu'est-ce-qui serait différent ?
        i. Pour les patients
        ii. Pour vous en tant que professionnel de santé/ assureur/ directeur…

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Chapter 2

Value-based health care definition and operationalisation:

a scoping review

Chapter 2 | Value-based health care definition and operationalisation: a scoping review

This chapter contains the preprint version of an article submitted for publication.

Review

Not peer-reviewed version

Value-Based Health Care Definition and Operationalisation: A Scoping Review

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Review

Value-Based Health Care Definition and Operationalisation: A Scoping Review

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Abstract

Objective: To provide an overview of definitions and operationalisation criteria across hospital or health system perspectives. ***Methods:*** A scoping review following the PRISMA-ScR (Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews) methodology, with a registered protocol on the Open Science Framework. A literature search was conducted in the PubMed database on May 15, 2024, using the MeSH term 'Value-based health care.' Reviews and empirical studies describing a definition or implementation strategy of VBHC in hospitals and health systems in high-income countries were included. Data were categorised into VBHC definition components and operationalisation criteria. Criteria from existing frameworks were referenced, and additional criteria were included. Synthesis was organised around two perspectives: hospitals and health systems. ***Results:*** 36 studies were included: 27 with a hospital perspective and 9 with a health system perspective. All studies referred to Porter's VBHC definition, focusing on patient-reported outcomes (PROMs), clinician-reported outcomes (CROMs), and costs. Seven studies proposed broader, system-oriented definitions. Fourteen operationalisation criteria were identified. 'Measuring outcomes and costs for every patient' was the most cited criterion in both perspectives, while the health system perspective considered more criteria overall (13 vs. 10) and per study (median 10 vs. 3) compared to the hospital perspective. ***Conclusion:*** Value in health care is created at the local level, particularly within hospitals and along care pathways. While hospitals adopt VBHC inconsistently, health systems tend to apply broader criteria. Understanding system-level support could accelerate VBHC adoption, helping address global quality and cost challenges.

Keywords: value-based health care; health systems; hospital implementation; operationalisation; scoping review

Introduction

The concept of VBHC, popularised in 2006 by Michael E. Porter and Elizabeth Teisberg in 'Redefining Health Care: Creating Value-Based Competition on Results', aims to maximise value for patients by achieving the best possible outcomes at the lowest cost.(Porter & Teisberg, 2006) This approach shifts away from the traditional fee-for-service model, which rewards volume, to a system where reimbursement is tied to measurable patient outcomes relative to costs. VBHC promotes payment models such as bundled payments, shared savings, and pay-for-performance, aligning financial incentives with patient health outcomes.(Porter, 2010) Central to VBHC is the use of outcome measures, including clinician-reported outcomes measures (CROMs), patient-reported outcomes measures (PROMs), and patient-reported experience measures (PREMs), ensuring a patient-centered focus.(Porter et al., 2016)

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Since its introduction nearly two decades ago, VBHC has moved from theory to practice, with tentative implementations in the United States, the Netherlands, and Sweden.(Larsson et al., 2023a) However, widespread adoption remains limited, with success often confined to pilot projects.(Zanotto et al., 2021) (Van Hoorn et al., 2024) Steinman demonstrated that diverse interpretations of VBHC emerged among stakeholders (policymakers, hospitals, payers, and patients), and this diversity is a barrier to its broader implementation.(Steinmann et al., 2020) (Cossio-Gil et al., 2022) (Lansdaal et al., 2022) Effective implementation of a concept or theoretical idea is facilitated by its explicit operationalisation, which involves transforming (operationalising) concepts into measurable indicators.(Kaplan & Porter, 2011)

The Value Agenda proposed by Michael Porter was the first comprehensive framework for the operationalisation of VBHC.(Porter & Lee, 2013) It identified six key components: organising care into integrated practice units, measuring outcomes and costs for every patient, moving to bundled payments, integrating care across facilities, expanding geographic reach, and building an enabling information technology platform. Subsequent frameworks have built on Porter's agenda, largely retaining the same criteria while incorporating additional ones. Van der Nat's *new strategic agenda* for value transformation emphasised practical implementation, adding four components: using outcomes data for quality improvement, fostering transparent discussions with patients, promoting a culture of value delivery, and creating learning platforms for health care professionals.(van der Nat, 2022) Teisberg'strategic framework highlighted a holistic, patient-centric perspective for providers, emphasising 5 criteria: understand shared needs of patients, design solution to improve health outcomes, integrate learning teams, measure health outcomes and costs and expand partnerships.(Teisberg et al., 2020) Larsson's *framework for a value-based health system, developed with the World Economic Forum, included* health outcomes and costs systematic measurement, design of value-based payment models, digital standards and open digital platform, analytic tools for benchmarking and research, as well as new public policies.(Larsson et al., 2023b)

This scoping review aimed to map VBHC definitions and operationalisations criteria considered in studies adopting either a hospital or a health system perspective.

Methods

This scoping review was conducted following the PRISMA-ScR (Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews) methodology.(Tricco et al., 2018)

The protocol was registered on the Open Science Framework on May 7, 2024 (https://osf.io/x4hda/).(Chabloz et al., 2024) We subsequently identified the recent review by Fernandez-Salido et al. aiming to explore and synthesise the existing knowledge on the VBHC conceptualisation and the key elements and outcomes of implementing value-based care in the healthcare. While their aim was similar to ours, their review did not include a comparative analysis between health system and solely hospital perspectives.(Fernández-Salido et al., 2024) Building on this new basis, we opted to adopt a binary perspective in our protocol: hospitals and health systems. The search strategy and eligibility criteria remained unchanged.

Eligibility Criteria

This review focused on VBHC and its operationalisation from hospital or health system perspectives. We included publications that either defined VBHC or discussed its implementation in hospital settings or health systems. Publications without an explicit definition of VBHC were excluded. We included studies that addressed hospitalised patient populations across all ages, sexes, social backgrounds, and medical conditions, but excluded those conducted in low- or middle-income countries. Eligible publications comprised empirical research or review studies, while protocols, editorials, opinion pieces, and studies not published in English and French were excluded.

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Since its introduction nearly two decades ago, VBHC has moved from theory to practice, with tentative implementations in the United States, the Netherlands, and Sweden.(Larsson et al., 2023a) However, widespread adoption remains limited, with success often confined to pilot projects.(Zanotto et al., 2021) (Van Hoorn et al., 2024) Steinman demonstrated that diverse interpretations of VBHC emerged among stakeholders (policymakers, hospitals, payers, and patients), and this diversity is a barrier to its broader implementation.(Steinmann et al., 2020) (Cossio-Gil et al., 2022) (Lansdaal et al., 2022) Effective implementation of a concept or theoretical idea is facilitated by its explicit operationalisation, which involves transforming (operationalising) concepts into measurable indicators.(Kaplan & Porter, 2011)

The Value Agenda proposed by Michael Porter was the first comprehensive framework for the operationalisation of VBHC.(Porter & Lee, 2013) It identified six key components: organising care into integrated practice units, measuring outcomes and costs for every patient, moving to bundled payments, integrating care across facilities, expanding geographic reach, and building an enabling information technology platform. Subsequent frameworks have built on Porter's agenda, largely retaining the same criteria while incorporating additional ones. Van der Nat's *new strategic agenda* for value transformation emphasised practical implementation, adding four components: using outcomes data for quality improvement, fostering transparent discussions with patients, promoting a culture of value delivery, and creating learning platforms for health care professionals.(van der Nat, 2022) Teisberg'strategic framework highlighted a holistic, patient-centric perspective for providers, emphasising 5 criteria: understand shared needs of patients, design solution to improve health outcomes, integrate learning teams, measure health outcomes and costs and expand partnerships.(Teisberg et al., 2020) Larsson's *framework for a value-based health system, developed with the World Economic Forum, included* health outcomes and costs systematic measurement, design of value-based payment models, digital standards and open digital platform, analytic tools for benchmarking and research, as well as new public policies.(Larsson et al., 2023b)

This scoping review aimed to map VBHC definitions and operationalisations criteria considered in studies adopting either a hospital or a health system perspective.

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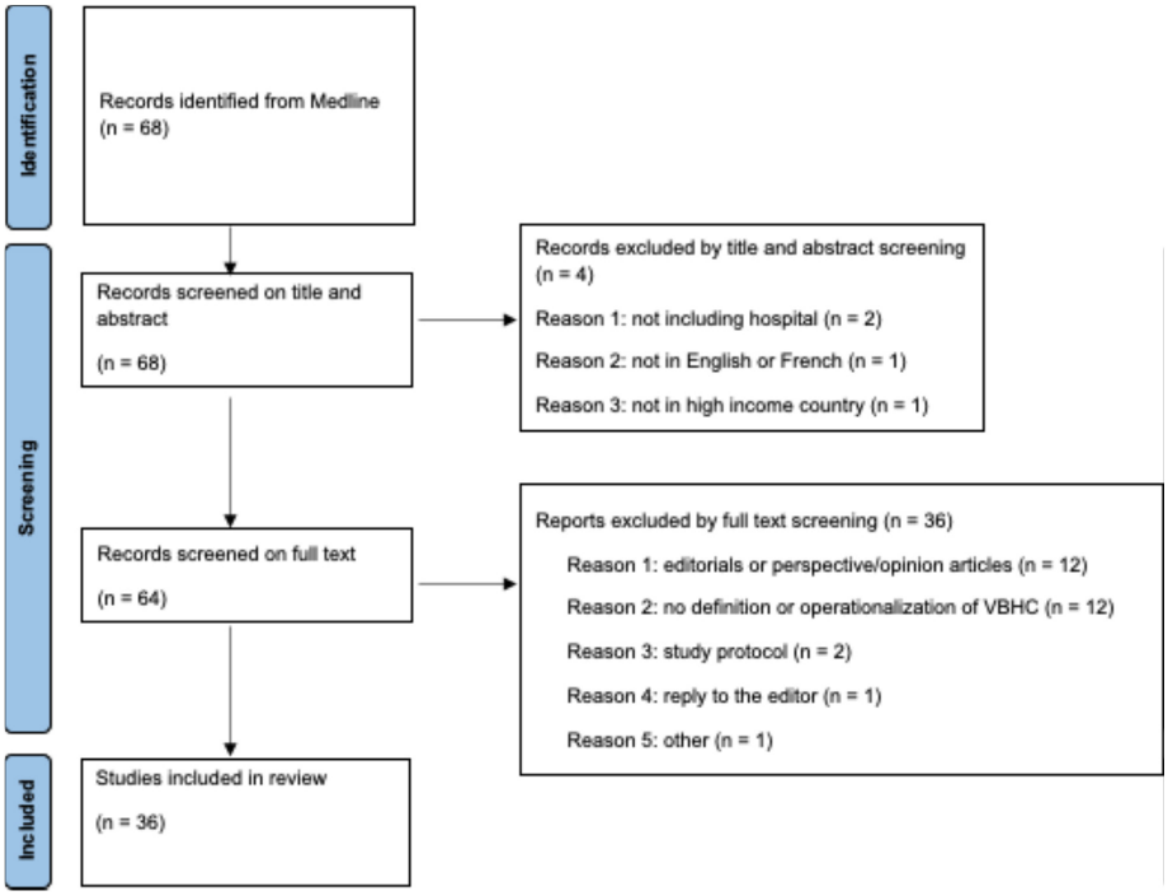

Figure 1. Flowchart of studies selection.

Characteristics of the Included Studies

The 36 selected studies were conducted in 14 countries: 15 in the Netherlands, five in Australia, two in the UK, two in Austria (including one in collaboration with the Netherlands), two in Wales, two in Belgium, two in the USA. One study each was conducted in China, Denmark, Finland, Ireland, Italy, Sweden and Indonesia. Additionally, two studies had been carried out by European organisations (see Supplemental Figure S1).

Most studies used empirical design (n=22), comprising quantitative studies (n=10), qualitative studies (n=10) and mixed-method studies (n=2). Additionally, 14 reviews were identified: narrative reviews (n=6), scoping reviews (n=6), and systematic reviews (n=2) (see Supplemental Table S3).

The majority of studies (n=27) focused on the hospital's perspective, while nine adressed VBHC with a health system perspective.[15,17–20,23,25,33,49]

Definition of VBHC

All 36 studies referenced Porter's definition of VBHC. However, the key dimensions of this definition, outcomes that matter to patients and costs, were not always fully acknowledged, as some studies mentioned only part of them, and they were not necessarily measured or analysed. Of the 36 studies analysed, 27 cited patient-reported outcome measures (PROMs) and 25 cited clinical-reported outcome measures (CROMs) as part of the definition of VBHC. Patient-reported experience measures (PREMs) were cited in 16 studies, twice more frequently in studies with a health system perspective (6/9) compared to a hospital perspective (11/27). The nature of the outcomes considered in VBHC definition was not explicitly specified in 7/36 of the studies. Costs were acknowledged as part of the VBHC framework in 29 studies and were consistently addressed in all health system-focused studies (9/9), but less so in hospital-focused ones (19/27).

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Six studies referenced or proposed alternative definitions of VBHC in addition to Porter's definition, not opposing it but building upon it. (Smith et al., 2023) (Gavaghan et al., 2024) (O'Donnell et al., 2023) (Derks et al., 2024) (van der Voorden et al., 2023) (van Engen et al., 2023) The rationale was that Porter's definition was 'too narrow', 'focusing mainly on health care', 'mostly adopted the provider perspective', 'more suitable for private health systems in the United States than for publicly funded systems with finite resources'. These studies preferred broader, more comprehensive definitions.

Four of them(Smith et al., 2023) (Derks et al., 2024) [41] (van Engen et al., 2023), including three with a hospital's perspective, cited a European expert panel that recommended adapting VBHC to align more closely with the foundational principles of solidarity-based health systems:

'VBHC is a comprehensive concept built on four value-pillars: appropriate care to achieve patients' personal goals (personal value), achievement of best possible outcomes with available resources (technical value), equitable resource distribution across all patient groups (allocative value) and contribution of health care to social participation and connectedness (societal value).' (Directorate-General for Health and Food Safety (European Commission), 2019)

Gavaghan(Gavaghan et al., 2024) referred to Hurst definition:

'In European countries with publicly funded health systems and finite resources, VBHC has been linked with population health and the need to assess value in terms of how resources are allocated across a population to ensure value is maximised by ensuring the right people within a population receive the right proportion of available resources at the right time.' (Gray et al., 2017)

O'Donnell(O'Donnell et al., 2023) cited the same passage, and Smith *et al* proposed their own broader definition :

'We define health system value to be the contribution of the health system to societal wellbeing, representing an aggregate measure of life satisfaction of its citizens.'(Smith et al., 2023)

These various definitions highlight a broader, more inclusive understanding of VBHC, with an emphasis on societal outcomes, equity, and the integration of population health within the VBHC framework.

VBHC Operationalisation

Half of the studies (18/36) explicitly referred to one or more existing frameworks, mainly the Porter's value agenda (16/36),(Porter & Lee, 2013) but also Teisberg strategic framework for VBHC care implementation (7/36),(Teisberg et al., 2020) Van der Nat's new strategic agenda for value transformation (1/36),(van der Nat, 2022) and the most recent Larsson conceptual framework for a value-based system (1/36). (Larsson et al., 2023b) However, even when no existing framework was cited in the paper, we were able to identify operationalisation criteria part of these frameworks in all 36 studies, and all 11 criteria included in these frameworks were found. Additionaly, we identified 3 new criteria: 'include prevention and early intervention', 'involve people and communities' and 'involve care delivery workforce'. 'Measure outcomes and costs for every patient' was by far the most common operationalisation criterion, considered in 33/36 studies.

From the hospital perspective, we identified 10 criteria. The average number of criteria cited per study was 3.5, with a median of 3. 'Measure outcomes and costs for every patient' was cited in 24/27 studies, followed by 'organise care into IPU/integrated care delivery system' (12/27), 'set up value-based quality improvement' (11/27), and 'build and enabling information technology platform' (10/27). Other criteria were mentioned by less than one-third of the studies. One criterion, 'integrate value in patient communication', was cited exclusively in studies with a hospital perspective (8/27).

From the health system perspective, we identified 13 criteria. The average number of criteria cited per study was 9.1, with a median of 10. 'Measure outcomes and costs for every patient' was cited in all 9 studies, followed by 'develop policies to accelerate VBHC' (8/9), 'include prevention and early intervention' (8/9), 'integrate care across separate facilities'(7/9), 'expand excellent services across geography' (7/9), and 'build an enabling information technology platform' (7/9). All cited criteria were found in at least 4/9 studies. Four criteria were cited exclusively in studies with a health

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system perspective: 'develop policies to accelerate VBHC' (8/9), 'include prevention and early intervention' (8/9), 'involve people and communities' (6/9) and 'involve care delivery workforce' (5/9) (see Supplemental Table S2).

Figure 2 illustrates the differences in the citation frequencies of VBHC operationalisation criteria between studies adopting a hospital perspective or those adopting a system perspective.

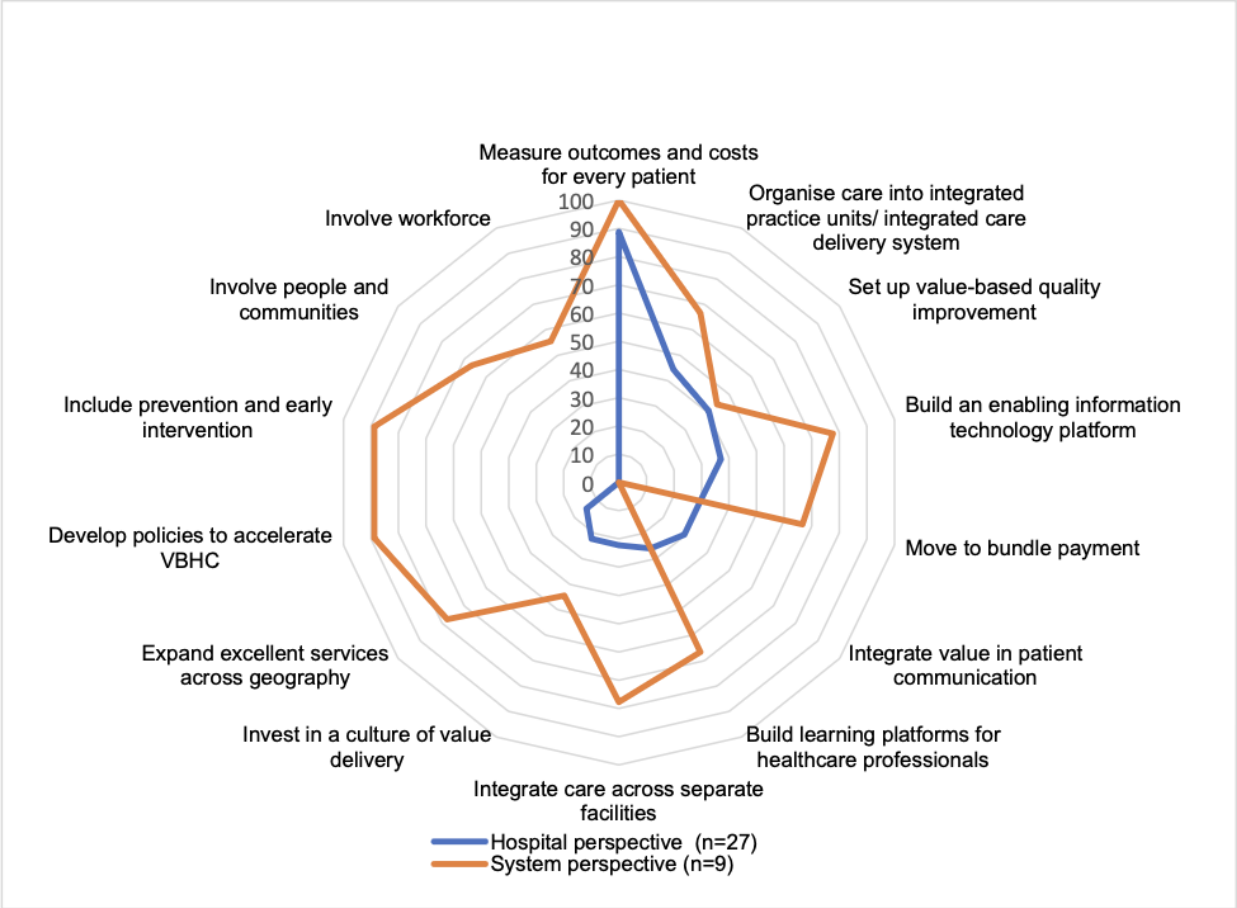

Figure 2. Comparison of the percentages of citation of each VBHC operationalization criteria between papers with hospital or system perspectives.

Comparison of Perspectives

Comparing both perspectives, we observed that, apart from the dominant criterion, 'measure outcomes and costs for every patient', the frequency of citations varied by perspective. For instance, 'expand excellent services across geography' was frequently cited in the healthcare system perspective (7/9 studies) but rarely mentioned in the hospital perspective (4/27). The health system perspective on VBHC was more comprehensive than the hospital perspective, both in terms of the total number of criteria considered (13 vs. 10, respectively) and the median number of criteria considered (10 vs. 3, respectively).

Discussion

The analysis of 36 recent studies revealed key differences in how the VBHC concept is defined and operationalised depending on the perspective taken. While all studies referenced the Porter's definition, many did not fully consider all patient-relevant outcomes and costs. Upon examining the components of the numerator in the VBHC definition, PROMs measures are always cited as essential outcomes, followed closely by CROMs measures and, with less consistency, by PREMs. Additionally, six studies proposed broader definitions to better align with publicly funded health systems. The operationalisation of VBHC varied significantly between hospital or broader health system

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perspectives: hospital-focused studies emphasised outcome measurement and care integration, while in recent years, some health systems have endorsed a shift toward a population-centric and participatory approach, adopting a comprehensive set of operationalisation criteria.

Recent literature recognises Porter's seminal work as the key reference for defining VBHC, as Fernandez-Salido *et al* also found out in their review.(Fernández-Salido et al., 2024) Prioritising outcome measurement over patient experience is consistent with the findings of Katz *et al*'s, who reported that over 83 per cent of patients prioritise care outcomes when assessing the quality of their medical team.(Katz et al., 2024)

The observed hospital focus on fundamental building blocks may illustrate Porter's emphasise on a gradual transition.(Porter & Teisberg, 2006) Recommendations for VBHC implementation by Cossio-Gil *et al*, based on the experiences of nine European university hospitals, also advocate measuring outcomes and organising care into integrated practice units, before developing a technology platform. However, the authors also recognise that hospital implementation of VBHC needs to be embedded in a larger healthcare ecosystem.(Cossio-Gil et al., 2022)

Another reason for hospitals' narrow focus may be the misalignment highlighted by Porter: fee-for-service payment models often conflict with VBHC's value-driven goals by incentivising volume over outcomes. This creates financial challenges for hospitals striving to prioritise patient health results over service quantity.(Porter, 2010) This issue has been underscored by the lessons learned from Sweden's experience with VBHC, as described by Krohwinkel et al. Systems that do not integrate bundled payments or comprehensive funding for VBHC-related transformation projects, such as Sweden's initial VBHC initiatives, illustrate how hospitals frequently encounter significant constraints without supportive systemic funding and policy adaptations.(Krohwinkel et al., n.d.) While this issue has been observed in Sweden, it is likely not unique to this country, as the reliance on fee-for-service payment structures presents a common challenge for hospitals seeking to implement VBHC more comprehensively.

This study has several limitations. First, we relied on a single bibliographic database (PubMed), which may have resulted in missing relevant studies indexed elsewhere. Our search focused on PubMed articles indexed under the MeSH term 'Value-based health care' from 2021 onward, which may have excluded studies published before 2021 or those not indexed under this term. Additionally, by focusing on studies explicitly defining or operationalising VBHC, we may have overlooked relevant insights from broader health policy or implementation science literature. The exclusion of non-English and non-French publications may have introduced language bias. We also limited our analysis to high-income countries, excluding lower-resource settings. While study selection and data extraction were conducted by independent reviewers, discrepancies were resolved through discussion rather than statistical measures of inter-rater reliability, introducing potential subjectivity. Finally, the lack of patient and public involvement may have limited our ability to capture patient-centered perspectives.

Our findings highlight the divergence in VBHC operationalisation between hospitals and health systems. While hospitals tend to focus on core aspects such as outcome measurement and quality improvement, health systems adopt a broader approach, incorporating preventive care, policy alignment, and digital transformation. This distinction underscores the need for greater coordination between hospitals and policymakers to ensure a cohesive and scalable VBHC strategy. Moreover, the persistent reliance on Porter's definition, despite evolving frameworks, suggests a need for clearer guidance on practical implementation. The lack of a universally accepted set of operational criteria may contribute to inconsistent adoption across different settings, requiring policymakers and healthcare leaders to foster alignment between hospital-level initiatives and systemic reforms.

Bridging the gap between hospital-focused and system-wide approaches to VBHC requires interdisciplinary collaboration, investment in enabling infrastructure, and a shared commitment to value-driven care. By fostering an integrated approach, stakeholders can accelerate the transformation toward a more efficient, patient-centered healthcare system.

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Conclusions

Value in health care is created at the local level, particularly during the care pathway and within hospitals. Two decades after the seminal work of Porter, the definition of VBHC seems to have reached consensus at the hospital level. However, in practice, when translating the VBHC definition into action, particularly throught the establishment of operationalisation criteria, most hospitals remain focused on the basic aspects of VBHC, such as collecting outcomes and enhancing care pathways, with low consensus in the selection of operationalisation criteria. In contrast, health systems embracing VBHC seems to more systematically embrace a broader, more comprehensive, and unified set of operationalisation criteria. Gaining a deeper understanding of how health systems can support hospitals in accelerating the adoption of VBHC could facilitate hospitals' VBHC journey. This, in turn, could contribute to adressing the quality and cost challenges that all health systems encounter.

Supplementary Materials:

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Supplemental materials

Supplemental Table 1 - Charting table fields

Category	Data extracted
1. Article information	Author(s)
	Year of publication
	Country
	Aim(s)
	Methodology
	Setting
	Medical condition(s) (if applicable)
	Study population (if applicable)
	Intervention (if applicable)
2. Key findings related to VBHC definition	VBHC definition(s) the authors relied on (text)
	Key elements considered in the definition: outcomes (PROMs-CROMs-PREMs) and costs
3. Operationalisation of VBHC at provider level	Components of Porter value agenda[1]
	Van der Nat additional components of the value agenda[2]
4. Operationalisation of VBHC at system level	Components of Porter value agenda[1]
	Van der Nat additional components of the value agenda[2]
	Teisberg value strategic framework components[3]
	Larsson / World Economic Forum value-based health system components[4]
	Other criteria of operationalisation

PROMs, Patient-reported outcomes measures; CROMs, Clinician-reported outcomes measures; PREMs, Patient-reported experience measures; VBHC, Value-based health care.

[1]Porter ME, Lee TH. The strategy that will fix health care. *Harvard Business Review*. 2013 Oct 1. https://hbr.org/2013/10/the-strategy-that-will-fix-health-care

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Supplemental Table 2 - Operationalisation criteria from hospital and healthcare system perspectives (n=36)

Operationalisation criteria	Perspective of the papers		
	All (n=36) No (%)	Hospital (n=27) No (%)	System (n=9) No (%)
Measure outcomes and costs for every patient[P,N,T,L]	33 (91.6)	24 (88.8)	9 (100.0)
Organise care into integrated practice units / integrated care delivery system[P,N,T,L]	18 (50.0)	12 (44.4)	6 (66.6)
Build an enabling information technology platform[P,N,L]	17 (47.2)	10 (37.0)	7 (77.7)
Set up value-based quality improvement[N,T,L]	15 (41.6)	11 (40.7)	4 (44.4)
Move to bundle payment[P,N,L]	14 (38.8)	8 (29.6)	6 (66.6)
Integrate care across separate facilities[P, N, T]	13 (36.1)	6 (22.2)	7 (77.7)
Build learning platforms for healthcare professionals[N,L]	13 (36.1)	7 (25.9)	6 (66.6)
Expand excellent services across geography[P,N,T]	11 (30.5)	4 (14.8)	7 (77.7)
Invest in a culture of value delivery[N]	10 (27.7)	6 (22.2)	4 (44.4)
Develop policies to accelerate VBHC[L]	8 (22.2)	0 (0.0)	8 (88.8)
Include prevention and early intervention*	8 (22.2)	0 (0.0)	8 (88.8)
Integrate value in patient communication[N]	8 (22.2)	8 (29.6)	0 (0.0)
Involve people and communities*	6 (16.6)	0 (0.0)	6 (66.6)
Involve care delivery workforce*	5 (13.8)	0 (0.0)	5 (55.5)

Criteria included in existing frameworks:

P, Porter *et al* "value agenda"; N, Van der Nat "new strategic agenda for value transformation" ; T, Teisberg *et al* "strategic framework";

L, Larsson et al "global agenda for the next decade".

* new operationalization criteria

Supplemental Table 3 - Characteristics of included studies (N=36)

Authors & year	Country	Study design	Setting type	Setting status	Aim
Abubakar, 2024	Indonesia	Scoping review	One or group of hospitals	NR	To identify and summarise how value-based healthcare is implemented in the field of ophthalmology.
Bensink, 2023	The Netherlands	Empirical, observational, cohort study	One or group of hospitals	NR	To determine if the introduction of value-based healthcare in fertility care can help to create realistic expectations in patients resulting in increased patient value.
Carbone, 2024	European Union	Case study	One or group of hospitals	NR	To present a consensus statement on outcome measures in liver transplantation following the principles of VBHC.
Derks, 2024	The Netherlands and Austria	Empirical, observational, cohort study	One or group of hospitals	public	To investigate repurposing the off-label empagliflozin treatment of persons with glycogen storage disease type2, showcasing a meaningful application of VBHC principles to an ultra-rare disease.
Eijsink, 2023	The Netherlands	Scoping review	One or group of hospitals	NR	To conduct a scoping review on patient-reported and clinical outcomes resulting from hospital-based interventions in Western countries, within the explicit context of VBHC.
Gavaghan, 2024	Australia	Case study	Healthcare system	public	To describe the process, including stakeholder co-design, and the lessons learned from the development of a VBHC framework.

He, 2023	China	Scoping review	One or group of hospitals	NR	To summarize how VBHC had been represented in theory and in practice, how it had been applied to assess hospital performance, and how well it had been ultimately implemented.
Hegde, 2024	Australia	Case study	Healthcare system	public	To describe the experiences and learnings from developing and implementing a codesigned VBHC framework within the Victorian public oral health sector.
Hilhorst, 2023	Belgium	Mixed-method study	One or group of hospitals	NR	To develop a value-based outcomes sets for psoriasis.
Kidanemariam, 2023	The Netherlands	Scoping review	One or group of hospitals	NR	To provide an overview of measures used to assess the effect of VBHC implementation and to examine to what extent the evidence indicates that VBHC supports patient-centred care.
Leao, 2023	The Netherlands	Narrative review	One or group of hospitals	NR	To serve as a warning for the constant presence of risk selection, as well as informing policy makers, politicians, and organisations implementing value based procurement models on ways to minimise the possibility of risk selection.
Lee, 2024	USA	Empirical, observational, cohort study	One or group of hospitals	NR	To describe and report a strategy for the implementation of a novel patient centered value-based ‘‘optimal surgical care’’ framework, with validation and cost analysis in kidney surgery 5years post implementation.

Leusder, 2022	The Netherlands	Systematic review	One or group of hospitals	NR	To categorise costing methods reported in empirical VBHC literature published over the last two decades into cost measurement methods defined in the literature.
Lin, 2023	Australia	Case study	Healthcare system	public	To describe three key principles, which can be adopted by other organisations engaged in reforming oral healthcare, to improve the oral health for the population it serves.
Newton, 2024	USA	Narrative review	One or group of hospitals	NR	To discuss building and implementing evidence-based perioperative care pathways and measuring the value achieved using process maps and time-driven activity-based costing (TDABC) models.
Nguyen, 2023	Australia	Case study	Healthcare system	public	This paper explores a VBHC case study showing promise for achieving universal health coverage that includes oral health.
Nielsen, 2024	Denmark	Empirical, observational, cohort study	One or group of hospitals	NR	To develop and test an outcome-based, patient-centred management model for patients with psoriasis in Denmark.
O'Donnell, 2023	UK Wales and Ireland	Case study	Healthcare system	public	To explore some of the challenges and opportunities that the implementation of VBHC presents to a national publicly funded health service.

Omara, 2023	Austria	Case study	One or group of hospitals	public	To describe challenges and opportunities of integrating a standardized patient reported outcome as the way forward to implement future VBHC.
Pecoraro, 2023	Italy	Narrative review	One or group of hospitals	mixed	To understand in vitro diagnostics 'role in enabling the adoption of value-based care models.
Raymond, 2023	Australia	Narrative review	Healthcare system	NR	To describe a value agenda for value based public health.
Silveira Bianchim, 2023	UK	Scoping review	One or group of hospitals	NR	To identify and describe studies on the implementation, use and effectiveness of patient reported outcomes as part of a VBHC program or a similar routine practice context.
Smith, 2023	UK and EU	Narrative review	Healthcare system	NR	To develop a unified policy framework of value-based health care that adopts a health system perspective and focuses on the value created by the health system as a whole.
Theunissen, 2023	The Netherlands	Case study	A regional integrated care network	NR	To report the experience of implementing the Netherland Heart Network. A regional integrated care system for cardiac patients.
Torkki, 2023	Finland	Case study	Healthcare system	NR	To build an outcome-based population segmentation model for health authorities.
van der Poort, 2024	The Netherlands	Narrative review	One or group of hospitals	mixed	To provide guidance on how to use costs in VBHC delivery at different levels of the healthcare system.
van der Voorden, 2023	The Netherlands	Systematic review	One or group of hospitals	NR	To present an overview of empirical findings regarding patient

					engagement in a VBHC context on the organizational level of hospitals.
van Elten, 2023	The Netherlands	Scoping review	One or group of hospitals	NR	To see what has been reported about VHBC and performance management in practice.
van Engen, 2023	The Netherlands	Delphi consensus	One or group of hospitals	public	To find a consensus on clinicians' and patients' activities that underpin an ideal value-based outpatient specialty consultation, among clinicians.
van Staalduinen, 2023	The Netherlands	Empirical, observational, survey study	One or group of hospitals	public	To examine relational coordination in VBHC and its antecedents.
van Veghel, 2024	The Netherlands	Empirical, observational, cohort study	One or group of hospitals	public	To develop a pragmatic framework, based on VBHC principles, to monitor health outcomes per unit costs on an institutional level and investigate the association between health outcomes and healthcare utilisation costs.
van Zwol-Janssens, 2024	The Netherlands	Mixed-method study	One or group of hospitals	public	To establish a set of clinician and patient-reported outcome measures, and evaluate a VBHC program in patients with premature ovarian insufficiency.
Walshe, 2022	UK Wales	Empirical, observational, cohort study	Group of hospitals & healthcare system	public	To evaluate the level of completeness of the ICHOM* patient-centred outcome set for patients with inflammatory bowel disease that could be achieved just by linking routinely collected health data.

Westerink, 2024	The Netherlands	Empirical, observational, survey study	One or group of hospitals	NR	To provide insight into the progress of VBHC implementation at the level of value integrated teams, by Empirical, surveying Dutch value integrated team members on their performance.
Wolf, 2024	Sweden	Empirical, qualitative study (interviews)	One or group of hospitals	public	To explore the perception of value among different stakeholders involved in the process of implementing VBHC at a Swedish hospital to support leaders to be more efficient and effective when developing health care.
Wyffels, 2023	Belgium	Empirical, observational, pre-post study	One or group of hospitals	public	To assess the effects on outcomes and hospital revenues of a by default strategy of same day discharge in patients undergoing a cardiac catheterization procedure in a Belgian Hospital.

Supplemental Figure 1 - Countries of origin of selected studies

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Chapter 3

From research to knowledge translation:

VBHC symposium

Chapter 3 | From research to knowledge translation: VBHC symposium

This chapter presents the reports of the Value-Based Health Care Symposium organized as a knowledge translation and dissemination initiative stemming from this research. The symposium aimed to foster dialogue and critical reflection among healthcare professionals and key stakeholders in Switzerland.

Direction médicale

Symposium

Créer de la valeur en santé par le « Value-Based Health Care »

Quand les résultats guident nos choix

Lausanne, CHUV le 23 septembre 2025

DOI : 10.5281/zenodo.18410354

Comité scientifique, intervenants et rédaction du rapport

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[2] Laboratoire de santé des populations (#PopHealthLab), Université de Fribourg

[3] Hôpital Riviera-Chablais

[4] Laboratoire des patient·e·s en oncologie, Swiss Cancer Center Leman

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[6] Assistance publique - Hôpitaux de Paris

[7] Société française de la valeur en santé – VBHC

[8] Université de Genève

[9] Fédération des hôpitaux vaudois

Rapport du symposium Créer de la valeur en santé par le « Value-Based Health Care » - Quand les résultats guident nos choix, CHUV, Lausanne 23 septembre 2025.

Rédaction :

Claire Chabloz avec les contributions de François Bastardot, Arnaud Chiolero, Stéphane Cullati, Michaël Laurac, Marie Méan, Christoph A. Meier, Anthony Staines.

Table des matières

Résumé

• Le symposium “Value-Based Health Care (VBHC)” a réuni au Centre hospitalier universitaire vaudois (CHUV) des experts, cliniciens, patient·e·s partenaires et décideurs pour réfléchir à la création de valeur en santé dans le contexte suisse.

• Le VBHC repose sur l’idée que la finalité du système de santé doit être la création de valeur pour le·s patient·e·s, définie comme le rapport entre le·s résultats de santé pertinents pour les patient·e·s et le coût total des soins sur l’ensemble du parcours.

• Les échanges ont mis en évidence la nécessité de développer une culture commune du monitoring de la qualité des soins via des indicateurs, d’impliquer le·s patient·e·s dans l’évaluation des soins via les PROMs (Patient Reported Outcomes Measures) et d’adapter les modèles organisationnels et financiers.

• Les principales conditions de réussite identifiées sont un leadership institutionnel fort, la formation des professionnels, des outils numériques adaptés et une gouvernance claire au niveau de l’institution (ex. hôpital, clinique) et plus largement au niveau régional ou national.

• Le symposium a permis de dégager des pistes concrètes pour la mise en œuvre du VBHC en Suisse : renforcer le monitoring de la qualité de soins, favoriser la transparence, et soutenir les équipes dans cette transformation centrée sur la valeur.

Summary

• The “Value-Based Health Care (VBHC)” symposium brought together experts, clinicians, patient partners and decision-makers at the Lausanne University Hospital (CHUV) to reflect on the creation of value in health in the Swiss context.

• VBHC is based on the idea that the (ultimate) goal of a health system should be to create value for patients, define as the ratio between the health outcomes that matter to them and the total cost of achieving those outcomes across the entire care pathway.

• The discussions highlighted the need to develop a common culture of measurement, involve patients in the evaluation of care via PROMs (Patient Reported Outcomes Measures) and adapt organizational and financial models.

• The key success factors identified include strong institutional leadership, adequate training for healthcare professionals, well-adapted digital tools, and clear governance structures, both at the institutional level (e.g., hospitals or clinics) and, more broadly, at the regional or national level.

• The symposium made it possible to identify concrete avenues for the implementation of the VBHC in Switzerland: strengthen results measurement, foster transparency, and support teams in this value-centric transformation

1. Contexte

Le système de santé suisse fait face à des défis majeurs : augmentation continue des coûts, pression sur les ressources humaines, et complexification des prises en charge. Dans ce contexte, la notion de VBHC émerge comme une approche prometteuse pour concilier qualité, équité et soutenabilité.

Inspirée des travaux de Michael Porter et Elizabeth Teisberg (2006), l'approche VBHC repose sur un principe simple : la valeur en santé correspond aux résultats qui comptent pour le·s patient·e·s, rapportés aux ressources nécessaires pour les atteindre.

Le symposium organisé par la Direction médicale du Centre hospitalier universitaire vaudois (CHUV) a eu pour ambition de traduire ce concept en pratiques et réflexions concrètes.

Il a rassemblé des représentant.e.s du monde clinique, académique et institutionnel, ainsi que des patient·e·s partenaire·s, autour d'une question :

Comment créer de la valeur pour le·s patient·e·s dans un système de santé fragmenté, sous pression et en mutation ?

2. Objectifs

Ce symposium a proposé une réflexion collective nourrie par des regards croisés : patient·e·s partenaires, clinicien·ne·s, chercheur·euse·s, responsables institutionnels, autour de deux axes :

- L'intégration des résultats qui comptent pour le·s patient·e·s dans les pratiques.
- Les évolutions nécessaires de nos approches via un monitoring de la qualité des soins, nos outils et nos collaborations pour faire face aux défis actuels de manière concrète et durable.

La réflexion a été nourrie par des retours d'expériences, des témoignages et un espace de dialogue sur les leviers et les freins à l'implémentation du VBHC en Suisse.

3. Présentations et intervenants

Les intervenant·e·s, issus de disciplines variées, ont présenté leurs perspectives sur les bénéfices et les défis liés au monitoring des indicateurs de valeur en santé, en particulier l'utilisation des PROMs et CROMs (Clinician Reported Outcomes Measures) (*Table 1*) dans les parcours de soins.

Table 1 – Indicateurs de résultats PROMs et CROMs

Mesures de résultat	Définitions	Exemples
Clinician Reported Outcomes (CROMs)	Mesures de résultats rapportées par les cliniciens ou les équipes soignantes, basées sur des données cliniques. Elles évaluent l'état de santé, la progression ou l'efficacité d'un traitement selon des critères médicaux.	• Taux de survie à 1 an après un infarctus du myocarde • Taux de récidive tumorale après chirurgie du cancer du sein
Patient Reported Outcomes (PROMs)	Mesures de résultats rapportées directement par les patient·e·s. Elles reflètent la perception du patient sur sa santé, ses symptômes, sa qualité de vie ou sa capacité fonctionnelle.	• Score de qualité de vie • Échelle de douleur • Score fonctionnel

Le symposium a réuni 150 participant·e·s, incluant les organisateur·trice·s et les conférencier·ère·s.

Les participant·e·s comprenaient des représentant·e·s de différentes institutions de santé et de recherche suisses et internationales ainsi que des patient·e·s partenaires. Les titres, noms des intervenant·e·s et leurs affiliations sont indiqués dans la *Table 2*.

Des photos de l'évènement se trouvent en annexe 1 et les présentations en annexe 2.

Table 2 - Liste des présentations et orateurs·trices

Titre	Orateur.trice(s)	Affiliation(s)
Qu'est-ce que la Valeur en Santé ?	Claire Chabloz[1,2]	[1]Centre Hospitalier Universitaire Vaudois [2]Laboratoire de santé des populations (#PopHealthLab), Université de Fribourg
Le VBHC en Suisse : Historique et défis	Pr Christoph A Meier[1]	[1]Université de Genève
Expérience sur l'usage des PROMs en oncologie	Pre Manuela Eicher[1,2,3] Dre Tourane Corbière[4,5]	[1]Institut universitaire de formation et recherche en soins [2]Université de Lausanne [3]Centre Hospitalier Universitaire Vaudois [4]Laboratoire des Patient.e.s en Oncologie [5] Swiss Cancer Center Leman
Retour d'expérience sur le recueil des PROMs au sein de l'Assistance Publique – Hôpitaux de Paris	Dre Virginie Luce-Garnier[1,2]	[1]Assistance Publique – Hôpitaux de Paris, Paris, France [2]Société française de la valeur en santé - VBHC**
Retour d'expérience en chirurgie de la main	Dr Laurent Wehrli[1]	[1]Centre Hospitalier Universitaire Vaudois
<u>Table ronde</u> : **Quels leviers et quels freins pour l'implémentation du VBHC en Suisse ?**	Dre Tourane Corbière[1,2] Mme Anne Pouly[3] Dre Marie Méan[3] Dr Alain Akiki[4] Pr Arnaud Chiolero[5]	[1]Laboratoire des Patient.e.s en Oncologie [2] Swiss Cancer Center Leman [3]Centre Hospitalier Universitaire Vaudois [4]Hôpital Riviera-Chablais [5]Laboratoire de santé des populations (#PopHealthLab), Université de Fribourg

4. Discussion

Comprendre la valeur : un changement de paradigme.

Les participant·e·s ont souligné qu'adopter le VBHC implique un changement de perspective : partir des besoins des patient·e·s plutôt que de l'organisation des soins. Cela requiert de définir, pour chaque groupe de patient·e·s, quels résultats sont réellement significatifs de leur point de vue : qualité de vie, autonomie, absence de complications, retour à l'emploi, etc.

La valeur en santé ne se limite pas à ces résultats ; elle doit être évaluée en lien avec les ressources et les coûts nécessaires pour les atteindre. Dès lors, le monitoring de la qualité des soins est un élément clef de la VBHC. Les décisions cliniques et organisationnelles doivent donc intégrer à la fois les bénéfices pour les patient·e·s et l'efficience des soins.

Le monitoring via la mesure des résultats repose sur deux types d'indicateurs :

• **CROMs** : résultats observés par les professionnel·le·s ;

• **PROMs** : résultats rapportés directement par les patient·e·s.

L'intégration des PROMs dans la pratique clinique constitue un levier essentiel pour améliorer la qualité et l'efficience des soins. Ces données permettent de relier l'expérience vécue par le·la patient·e à la performance réelle des soins, tout en soutenant le dialogue patient–professionnel et l'optimisation des ressources.

De la mesure à la transformation

Mesurer ne suffit pas : encore faut-il restituer, interpréter et utiliser les données. Les échanges ont insisté sur la nécessité d'un retour d'information dynamique et bienveillant aux équipes et aux patient·e·s, afin que les indicateurs deviennent des outils d'apprentissage et de monitoring, et non de contrôle. L'indicateur est utile dans le soin, dans la discussion avec le patient et dans la décision clinique ; il est aussi utile pour monitorer le système, faire du benchmarking et organiser la structure de soins.

La valeur en santé suppose également de réorganiser les soins autour de parcours de patient·e·s, plutôt que par spécialités médicales, et de favoriser la collaboration interprofessionnelle.

Les expériences partagées ont montré que lorsque les équipes disposent d'indicateurs clairs et pertinents, elles peuvent identifier les marges d'amélioration et ajuster leurs pratiques. Toutefois, cette démarche requiert des outils numériques adaptés, une formation à la lecture des résultats et une volonté institutionnelle forte.

Les conditions de réussite

Plusieurs conditions ont été identifiées pour permettre le déploiement du VBHC en Suisse :

- Leadership et gouvernance : la direction des institutions doit impulser la dynamique et garantir un cadre stratégique stable.
- Formation et accompagnement : les professionnels doivent être formés à la culture de la mesure et à l'interprétation des résultats.
- Participation des patient·e·s : les patient·e·s doivent être associés à la définition des résultats et à l'interprétation des données.
- Monitoring de la qualité des soins et systèmes d'information : des plate-formes intégrées sont nécessaires pour collecter, analyser et restituer les données de manière fluide et

sécurisée ; le système doit produire une information utile pour les soins et pour la gouvernance.

- Financement aligné sur la valeur : le modèle économique doit évoluer

pour récompenser les résultats plutôt que les volumes d'actes.

Un mouvement collectif à structurer

Les participant·e·s ont également souligné l'importance de partager les expériences existantes, de documenter les réussites comme les difficultés, et de créer des espaces d'apprentissage collectif entre institutions.
La transparence et la diffusion des résultats constituent des leviers essentiels pour accélérer la transition vers un système fondé sur la valeur.

5. Conclusion

Ce symposium VBHC a marqué une étape dans la réflexion sur la transformation du système de santé suisse.
Tous les acteurs et actrices s'accordent sur la pertinence du modèle : il permet de redonner du sens à la pratique clinique, de renforcer le partenariat avec les patients et d'améliorer l'efficience collective.

Mais la mise en œuvre du VBHC demande du temps, des outils, un monitoring efficace, et surtout une évolution culturelle profonde : apprendre à mesurer ce qui compte, à partager les résultats, et à en faire le moteur de l'amélioration.

Le CHUV, en réunissant autour de cette thématique des partenaires nationaux et internationaux, se positionne comme un acteur moteur de cette transition vers une santé centrée sur la valeur crée pour les patient·e·s.

Remerciements

Nous remercions le Laboratoire de Santé des Populations de l'Université de Fribourg pour avoir proposé cette initiative, la direction médicale du CHUV pour l'avoir organisée et à nos partenaires pour leur contribution à l'élaboration et la diffusion du programme du Symposium, en particulier les membres du comité scientifique du symposium : Dr François Bastardot, Dre Claire Chabloz, Pr Arnaud Chiolero, M. Michaël Laurac, Dre Marie Méan, Pr Christoph A. Meier et Dr Anthony Staines.

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Chiolero A, Cullati S, Tancredi S, et al. De la pratique fondée sur les preuves à l'amélioration de la qualité pour des soins de haute valeur centrés sur le patient. *Rev Med Suisse.* 2022;18(790):1402-5. Disponible sur : https://doi.org/10.53738/REVMED.2022.18.790.1402

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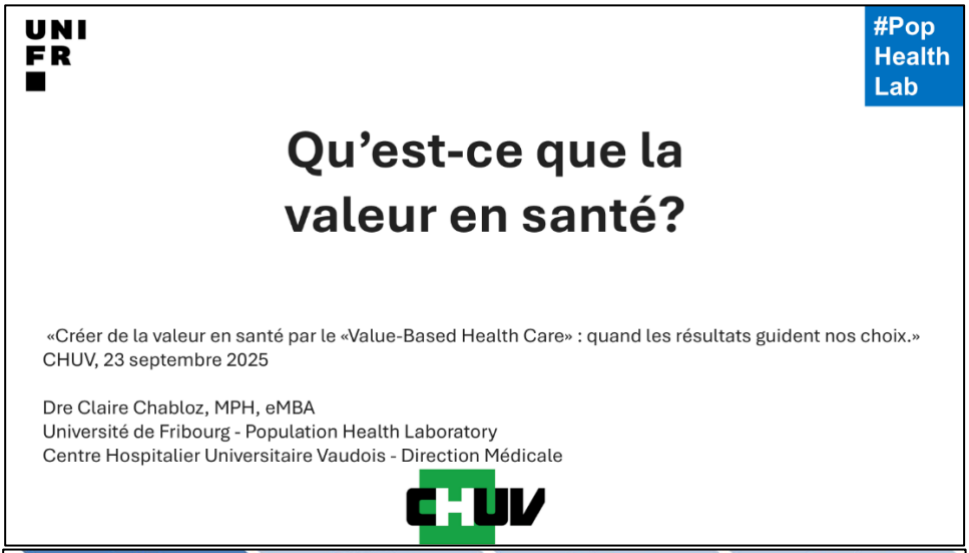
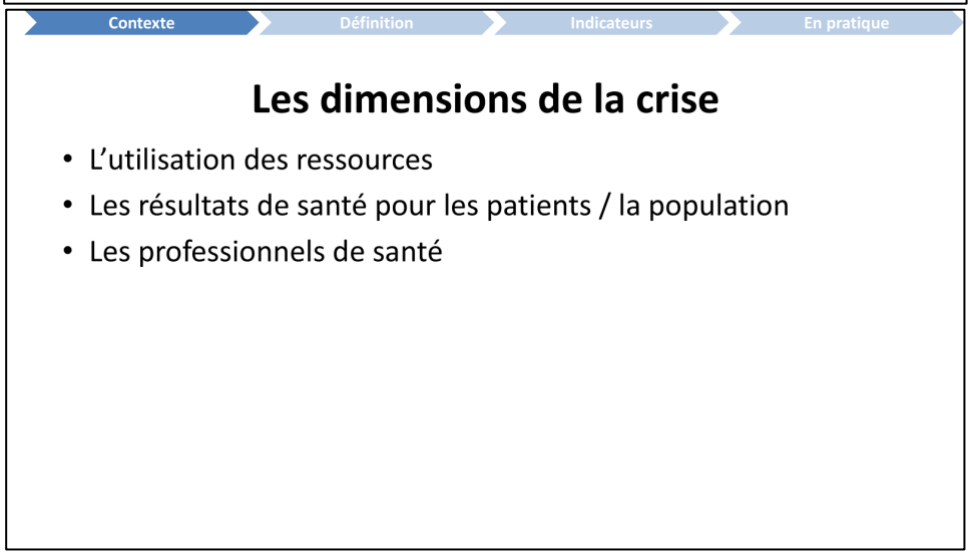
Association VBHC Suisse. Disponible sur : https://www.vbhc.ch/

Annexe - Présentations

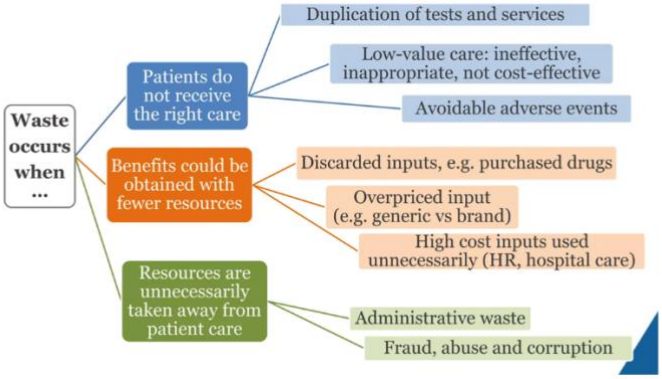
Présentation par Dre Claire Chabloz



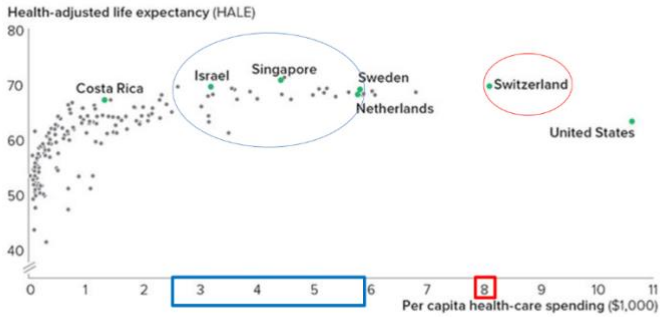


20-30% des dépenses de santé sont gaspillées

OCDE, 2017



Dépenses de santé vs espérance de vie en bonne santé



Source : WHO, World Bank 2019. Published in "The patient priority" S Larsson et al.

Variabilités des résultats

Differences in hospital outcomes[7-16]

Country	Variation	
	2x	in one-year survival rates for lung-cancer treatment in England* [7]
	3x	in complications after colon cancer surgery in the Netherlands* [8]
	5x	in reoperations due to complications after knee replacement in Germany* [9]
	6x	in reoperations within two years after total hip replacement in Sweden [10]
	7x	in percentage of complications after colon cancer surgery in Sweden [11]
	7x	in mortality rate after rectal cancer surgery in Belgium* [12]
	8x	in reoperations following coronary artery bypass grafts in the UK [13]
	11x	in severe incontinence after radical prostatectomy in Germany [14]
	15x	in 30-day mortality rates after emergency hospital admissions for COPD in England [15]
	31x	in capsule complications after cataract surgery in Sweden [16]

Risk-adjusted

Source : EIT Health, Implementing Value-Based Health Care in Europe: Handbook for Pioneers (Director: Gregory Katz), 2020.

Contexte | **Définition** | Indicateurs | En pratique

Valeur en Santé = $\frac{\text{Résultat qui compte pour les patients}}{\text{Coût total pour atteindre ce résultat}}$

M Porter, E Teisberg, HBS 2006

« L'utilisation équitable, durable et transparente des ressources disponibles afin d'obtenir de meilleurs résultats et expériences pour chaque personne.»

Hurst L et al. CEBM, University of Oxford 2019

Contexte | **Définition** | Indicateurs | En pratique

Valeur en Santé = $\frac{\text{Résultat qui compte pour les patients}}{\text{Coût total pour atteindre ce résultat}}$

M Porter, E Teisberg, HBS 2006

- **Perspective** : celle du patient
- **Unité considérée** : condition médicale => des patients qui partagent des besoins similaires
- **Alignement** des tous les acteurs du système de santé sur cet objectif

- ✓ Cliniciens
- ✓ Administrateurs de structures de soins
- ✓ Patients / Asso patients / Population
- ✓ Décideurs politiques
- ✓ Payeurs - Assureurs
- ✓ Industrie pharma / MedTech

Contexte | Définition | Indicateurs | En pratique

Qu'est-ce-qui compte pour les patients?

Traduit et adapté de Porter ME. What is value in health care? N Eng J Med 2010; 363:247

Priorité

Niveau 1 Etat de Santé amélioré ou préservé	Survie
	Niveau de santé ou de guérison
Niveau 2 Parcours de soins	Temps nécessaire
	Effets indésirables / erreurs
Niveau 3 Durabilité de l'état de santé	Maintien du niveau de santé et récidives
	Conséquences à long terme des traitements

Catégories d'indicateurs

CROMs
Clinician Reported Outcomes measures

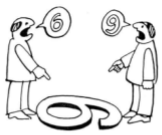
PROMs
Patient Reported outcomes measures

Contexte | Définition | Indicateurs | En pratique

CROMs & PROMs

Clinician Reported Outcomes Measures (CROMs)

- ✓ Fréquence respiratoire
- ✓ Indice de Masse Corporelle
- ✓ Une fracture consolidée à la radio
- ✓ Votre taux de glucose sanguin est maitrisé



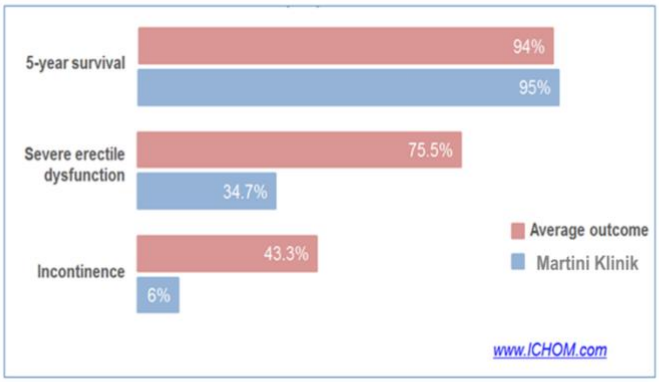
Patient Reported Outcomes Measures (PROMs)

- « Je n'arrive pas à monter 2 étages »
- « Je peux de nouveau lacer mes chaussures»
- « J'ai tellement mal en tenant ma fourchette »
- « Mon régime alimentaire me prend la tête»

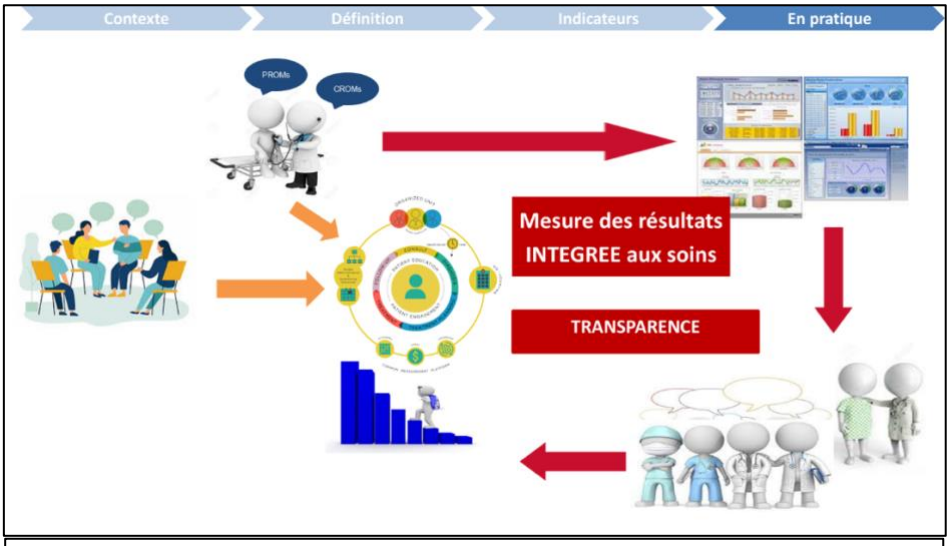
Adapted from G Katz

Contexte | Définition | Indicateurs | En pratique

Mesurer les résultats qui comptent pour les patients



Risk-adjusted



Messages clés

1. **L'objectif : obtenir de meilleurs résultats de santé tout en utilisant au mieux les ressources**
2. **Mesurer les résultats qui comptent pour les patients**
3. **Mesurer les dépenses nécessaires pour atteindre ces résultats**
4. **Redonner du sens ?**

«Un système aligné avec les motivations des professionnels de santé, et susceptible d'améliorer la satisfaction au travail… **en fonction des modalités de mise en œuvre**.»

van Engen V et al. Value-Based Healthcare From the Perspective of the Healthcare Professional: A Systematic Literature Review. Front Public Health. 2022

UNI FR

#Pop Health Lab

MERCI

Dre Claire Chabloz, MPH, eMBA
Université de Fribourg - Population Health Laboratory
Centre Hospitalier Universitaire Vaudois - Direction Médicale

CHUV

Présentation par Christoph A. Meier

UNIVERSITÉ DE GENÈVE

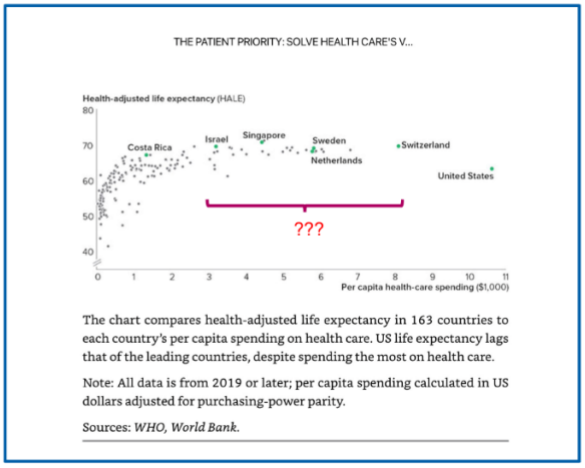
Le VBHC en Suisse
Historique et défis

Prof. Dr. med. Christoph A. Meier, UniGE

Newsweek Global Hospital Ranking, Advisory Board
SIRIS, Advisory Board
Novartis Venture Fund, VR
VIVA Health Suisse CMO
SensTek USA, CMO

23 septembre 2025

Swiss Health Care – *Value for money?*



The chart compares health-adjusted life expectancy in 163 countries to each country's per capita spending on health care. US life expectancy lags that of the leading countries, despite spending the most on health care.

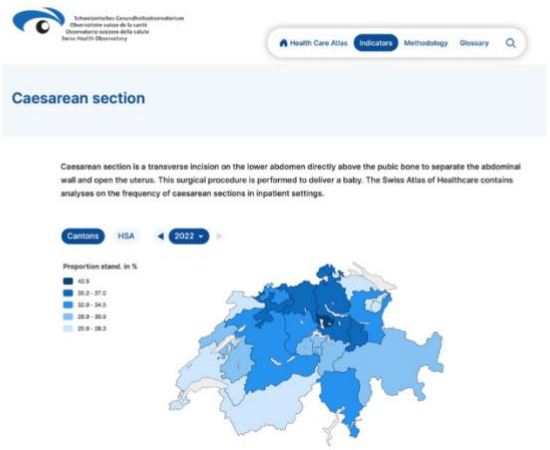
Note: All data is from 2019 or later; per capita spending calculated in US dollars adjusted for purchasing-power parity.

Sources: *WHO, World Bank.*

Stefan Larsson:
Patient Priority
McGrawHill (2022)

2

Swiss Health Care – *Variations of care / outcomes*



3

Implementing Value-Based Health 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 VBHC 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.

Implementation

To achieve these results, USB organised its VBHC 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 VBHC 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 VBHC 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 VBHC 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.

Aufbrechen

Katalysatoren für die Umsetzung von Value-based Healthcare in der Schweiz

Dr. med. Sophie-Christin Ernst, Dr. med. Murat Bilici, Dr. med. Florian Rüter

VBHCSUISSE

Beispiele wertbasierter Versorgungsmodelle in der Schweiz

5.1 Patient Empowerment & Pay 4 Patient Value

In der «Patient Empowerment-Initiative» unter der Projektleitung von PwC Schweiz wird die Entwicklung einer «dynamischen Baserate» für OKP-Versicherte der CSS und SWICA des Universitätsspitals Basel und des Kantonsspitals Winterthur angestrebt. Die Realisierbarkeit unter bestehender Gesetzgebung ohne Inanspruchnahme des Experimentierartikels fusst auf einem Rechtsgutachten und wird vom Kanton Basel-Stadt positiv beurteilt.
Wissenschaftlich begleitet vom Kompetenzzentrum für Health Data Science der Universität Luzern ist der Hüftgelenksersatz auch Ausgangspunkt des von der Groupe Mutuel in Kooperation mit dem Universitätsspital Basel und dem Hôpital la Tour (Meyrin) lancierten Pilotprojekt «Pay 4 Performance». PROM- und klinische Qualitätsdaten sollen nach einer Testphase mit realen Daten in die wertbasierte Abrechnungsroutine für diese und weitere Indikationen einfliessen.

5.2 Value-based Healthcare im Lungentumorzentrum USB/Roche

Universitätsspital Basel interpharmaph

pwc SWICA CSS

Switzerland

Rank	Hospital	Score	City	Footnote	PROMs survey
1	Universitätsspital Zürich	91.90%	Zurich		
2	Universitätsspital Basel	88.55%	Basel		
3	Centre Hospitalier Universitaire Vaudois	86.93%	Lausanne		
4	Les Hôpitaux Universitaires de Genève (HUG)	85.84%	Geneva		
15	Kantonsspital Winterthur	78.21%	Winterthur		
16	Hirslanden Klinik St. Anna	78.11%	Luzern		
17	Hôpital de la Tour	76.85%	Meyrin		
Special	Schulthess Klinik - Orthopedics		Zurich		
Special	Universitätsklinik Balgrist - Orthopedics		Zurich		

7

NEJM Catalyst | Innovations in Care Delivery

IN DEPTH

Mass General Brigham's Patient-Reported Outcomes Measurement System: A Decade of Learnings

Jason B. Liu, MD, MS, Robert S. Kaplan, PhD, MS, David W. Bates, MD, MSc, Maria O. Edelen, PhD, Rachel C. Sisodia, MD, Andrea L. Pusic, MD, MHS

Vol. 5 No. 7 | July 2024
DOI: 10.1056/CAT.23.0397

since 2012

> *"Ten years after starting collection of patient-reported outcome measures, rates still vary widely across clinics, with many at or above 90%, while others struggle to sustain a 50% collection rate."*

8

NEJM Catalyst | Innovations in Care Delivery

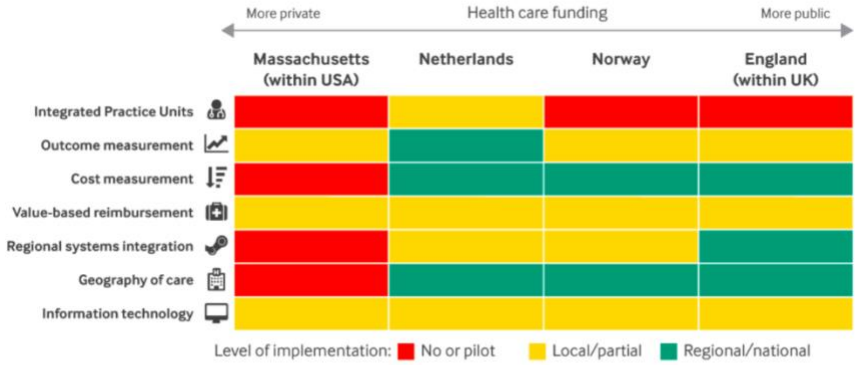
COMMENTARY

Value-Based Health Care in Four Different Health Care Systems

Christer Mjåset, MD, BA, Umar Ikram, MD, MPH, PhD, Navraj S. Nagra, MD, PhD, MS, Thomas W. Feeley, MD

9

Implementation of the Value-based Health Care Elements in Massachusetts (USA), the Netherlands, Norway, and England (United Kingdom) as of August 2020.



Note: The 7 elements here are based on Reference 3: Porter ME, Lee TH. The Strategy that will Fix Health Care. Harvard Business Review. October 2013.

10

> *This study shows that government-run systems, not surprisingly, tend to be more successful in initiating centers of excellence across the country, compared to more privately run systems. Governments in the U.K. and Norway have determined, centrally, where and what type of highly complex care centers are required to better address the specific needs of their populations."*

> *A key factor for VBHC implementation seems to be government involvement in care organization. Due to institutional legacies and divergent interests between providers, it is too complex for providers to realize full-fledged value-based systems themselves, as repeatedly indicated by interviewees regardless of the health care system."*

The future of VBHC in Switzerland?

EHC Hôpital de Morges

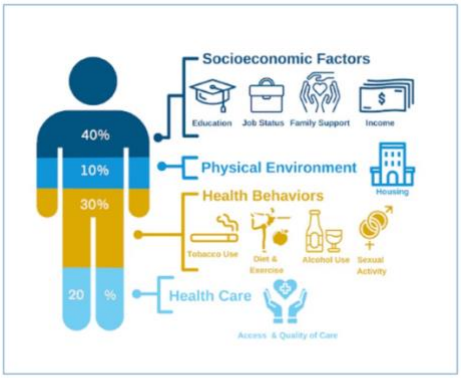
VIVA

VIVA Réseau de l'Arc

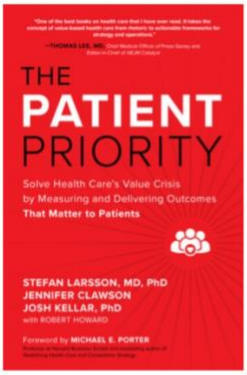
12

The Future of Health Care is not only VBHC

1. Population Health



2. Measure outcomes relevant to patients



13

Présentation par Tourane Corbière et Manuela Eicher

Expérience sur l'usage des PROMs en oncologie

Dr Tourane Corbière
Patiente partenaire / experte,
Laboratoire des Patient.e.s en Oncologie,
Swiss Cancer Center Leman
Prof. Manuela Eicher
ut universitaire de formation et de recherche en soins (IUFRS)
Faculté de biologie et de médecine
de Lausanne (UNIL) | Centre hospitalier universitaire vaudois (CHUV)

Symposium:
Créer de la valeur en santé par le «Value-Based Health Care»
Quand les résultats guident nos choix

CHUV, 23 septembre 2025

Pourquoi des PROMS ?

Parce que mon expérience de vie est souvent en décalage avec les données médicales objectives

Les résultats objectifs sont meilleurs mais je ne me sens pas mieux / je suis incapable de reprendre mes activités habituelles

Les résultats objectifs sont mauvais mais je ne sens rien de particulier – je ne vois pas l'intérêt d'entamer un traitement

J'aimerais que mon expérience puisse servir à améliorer ma prise en charge et celle des autres

PROMS en Oncologie

Intérêt particulier:

- Mortalité et morbidité: enjeux important
- Traitements complexes nécessitant une évaluation minutieuse

«Endpoints» des essais cliniques :

- Les PRO définissent l'impact clinique "réel" du traitement.
- Fournissent une définition complète des avantages et des inconvénients
- Les PRO peuvent faire pencher la balance lorsque les thérapies présentent des résultats d'efficacité similaires.

Mesure systématique et longitudinale dans la pratique clinique :

- Soins centrés sur le patient
- Qualité des soins

Implémentation de PROMs à tous niveaux

References:
- Krawczyk M, Sawatzky R, Schick-Makaroff K, et al. Micro-Meso-Macro Practice Tensions in Using Patient-Reported Outcome and Experience Measures in Hospital Palliative Care. Qual Health Res. 2019;29(4):510-521. doi:10.1177/1049732318761366

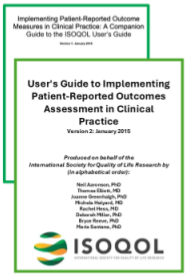
Utilisation des PROMs

DOMAINES MESURES	UTILISATION AU NIVEAU INDIVIDUEL	UTILISATION AU NIVEAU DU SYSTEME
SYMPTÔMES	Communication et prise de décision partagée	Assurance et amélioration de la qualité
ETAT FONCTIONNEL	*Empowerment* du patient à l'autogestion	Rémunération axée sur les résultats (P4P) et certification
QUALITE DE VIE	Facilitant surveillance des patients et télémédecine	Transparence des résultats
SANTE (ET SOUTIEN) SOCIAL	Adaptation du parcours de soins et prise de décision clinique	Recherche, par exemple en médecine et en économie de la santé (ETS)
PERCEPTIONS GENERALES (DE SA PROPRE SANTE)		Benchmarking et échange de bonnes pratiques

Reference: Viktoria Steinbeck, Sophie-Christin Ernst, Christoph Pross. Patient-Reported Outcome Measures (PROMs): ein internationaler Vergleich - Herausforderungen und Erfolgsstrategien für die Umsetzung von PROMs in Deutschland. Bertelsmann Stiftung 2021:104. https://doi.org/10.11586/2021053

Processus d'implémentation des PROMs

GUIDELINES POUR PROMS GENERIQUES



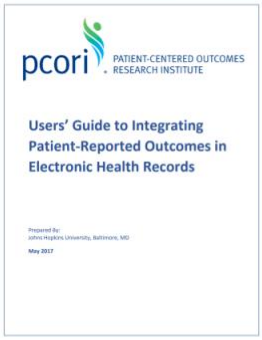
ETAPES

1. Objectifs — Ressources — Barrières
2. Groupe de Patients Cible
3. Choix du PROM
   Outils de scoring et interprétation du PROM
4. Présentation des Résultats (Quand? Où? Comment? À qui?) — **Réponse aux PROs**
5. Evaluation

Reference: Neil Aaronson, Thomas Elliott, Joanne Greenhalgh, Michele Halyard, Rachel Hess, Deborah Miller, et al. User's Guide to Implementing Patient-Reported Outcomes Assessment in Clinical Practice. International Society for Quality of Life Research; 2015.

Processus d'implémentation des PROMs

GUIDELINES POUR INTEGRATION DES PROMS DANS LE DOSSIER MEDICAL INFORMATISE (DMI)



1. Quelle stratégie sera utilisée pour intégrer les PROMs dans les DMI ?
2. Comment le système PROM-DMI sera-t-il gouverné ?
3. Comment les utilisateurs peuvent-ils être formés et mobilisés ?
4. Quelles populations et quels patients sont les plus appropriés pour la collecte et l'utilisation des données PROM, et comment les DMIs peuvent-ils aider à identifier les patients appropriés ?
5. Quels résultats sont importants à mesurer pour une population donnée ?
6. Comment les mesures potentielles de PROM doivent-elles être évaluées ?
7. Comment, où et à quelle fréquence les PROMs seront-ils administrés ?
8. Comment les données PROM seront-elles affichées dans le DMI ?
9. Comment les données PROM seront-elles utilisées ?
10. Comment les données PROM issues de plusieurs DMI peuvent-elles être regroupées ?
11. Quelles sont les questions éthiques et juridiques ?

Reference: Neil Aaronson, Thomas Elliott, Joanne Greenhalgh, Michele Halyard, Rachel Hess, Deborah Miller, et al. User's Guide to Implementing Patient-Reported Outcomes Assessment in Clinical Practice. International Society for Quality of Life Research; 2015.

Barrières et Facilitateurs à l'implémentation des PROMs/ePROMs

Reference: Silveira Bianchim M, Crane E, Jones A, Neukirchinger B, Roberts G, Mclaughlin L, et al. The implementation, use and impact of patient reported outcome measures in value-based healthcare programmes: A scoping review. Baradaran HR, éditeur. PLoS ONE. 6 déc 2023;18(12):e0290976.

Ressources en Oncologie: Exemples

A PRO is "any report of the status of a patient's health condition that comes directly from the patient, without interpretation of the patient's response by a clinician or anyone else."

- National Cancer Institute (NCI) - Patient-Reported Outcomes version of the Common Terminology Criteria for Adverse Events (PRO-CTCAE)
- European Organisation for Research and Treatment of Cancer (EORTC)
- PROMIS (Patient-Reported Outcomes Measurement Information System)
- Functional Assessment of Cancer Therapy (FACT) Measurement System
- PROQOLID (Patient-Reported Outcome and Quality of Life Instruments Database)

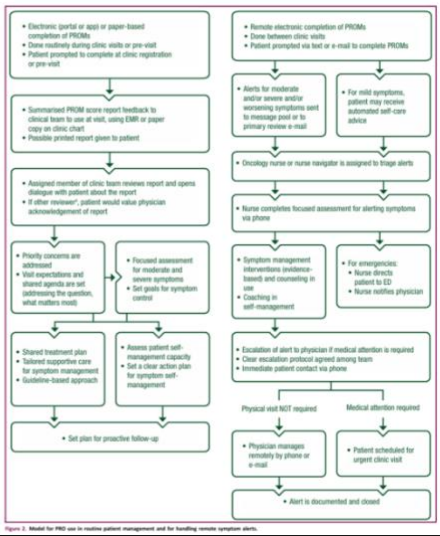
European Medicines Agency(EMA) Reflection paper on the regulatory guidance for the use of health related quality of life (HRQL) measures in the evaluation of medicinal products. London: European Medicines Agency; 2005. US food and drug administration guidance for industry: patient-reported outcome measures: use in medical product development to support labeling claims. Rockville, MD: Department of Health and Human Services, Food and Drug Administration, Center for Drug Evaluation and Research; 2009. Patrick DL, et al. Value Health. 2011;14:1–9.

Ressources en Oncologie: ESMO Guideline

ESMO — ANNALS OF ONCOLOGY

SPECIAL ARTICLE

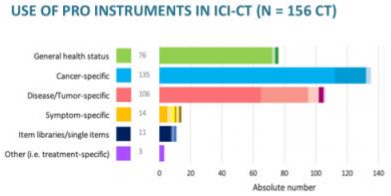
The role of patient-reported outcome measures in the continuum of cancer clinical care: ESMO Clinical Practice Guideline



Examples d'intégration des PROMs dans les soins

References: Da Silva Lopes AM, Colomer-Lahiguera S, Darnac C, et al. Development of an eHealth-enhanced model of care for the monitoring and management of immune-related adverse events in patients treated with immune checkpoint inhibitors. Support Care Cancer. 2023;31(8):484. doi:10.1007/s00520-023-07934-w

Which PRO instruments are used in ICI-CT?



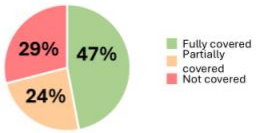
The most frequently used PRO tools in clinical trials are the cancer-specific **EORTC QLQ-C30 (72%)** and the general health status **EQ-5D (45%)** questionnaires.

Journal of Patient-Reported Outcomes

RESEARCH

Patient-reported outcome instruments in immune-checkpoint inhibitor clinica trials in oncology: a systematic review

COVERAGE OF SYMPTOMATIC AEs IN ICI-CT BY PRO INSTRUMENTS



Despite the high frequency of **symptom-related toxicities caused by ICI**, these events are only **partially covered (or not addressed) by current PRO instruments**, even when combined.

Déterminer les PROMS: Consensus international pour une population spécifique

OBJECTIVE:
Identify PRO-CTCAE items representing priority symptoms to monitor in patients treated with immune checkpoint inhibitors

Delphi method

- 11 International Experts
- Consensus: 75% agreement
- 4 Rounds
- Round 1: Relevance
- Round 2-3: Importance
- Round 4: Live Discussion

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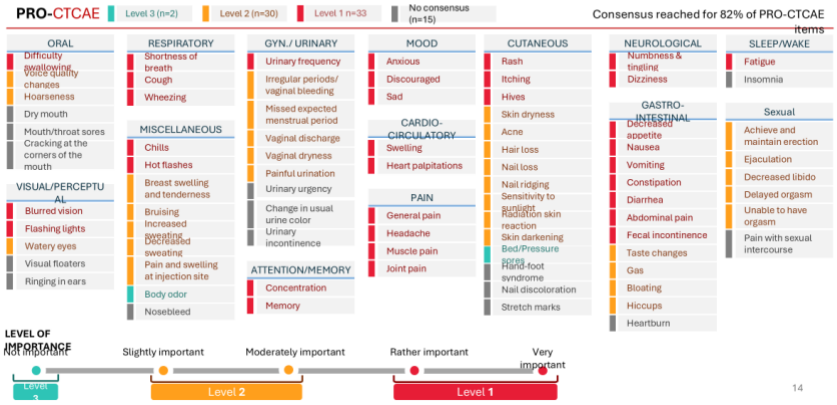
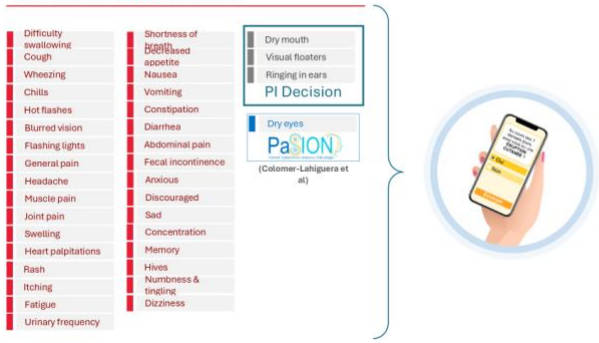
iePRO: Patient-reported outcomes measures for symptoms related to ICIs



14

iePRO: Patient-reported outcomes measures for symptoms related to ICIs

Selected **PRO-CTCAE** (**37 items**)



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PROMs: Intégration dans les soins

Expérience des patients ayant déclarant des PROs dans l'étude lePRO:

*« (…) ce que j'ai le plus apprécié, c'est que **vous fassiez le lien avec les Médecins** (…) **vous m'avez écouté** et que **vous pouvez le transmettre**, je pense que **cela aide aussi les oncologues**, car [il savent déjà ce que s'est passé] la prochaine fois qu'ils me verront (…)."*

(Femme, 73 ans)

*« Je suis heureuse, très heureuse [d'avoir participé], car **cela m'a aussi rapprochée de l'hôpital**. **J'ai moins peur de rencontrer une infirmière ou un médecin** maintenant. (...) ce sentiment de peur, d'inquiétude, que si je fais ça, si j'appelle, je vais déranger, mais non... au contraire, c'était positif de ce côté-là. »*

(Femme, 52 ans)

*« Avant d'avoir l'application [ePROM], **je sentais un poids sur mes épaules** (...), et **après, je me sentais plus léger** parce que **je savais qu'il y aurait un suivi**.*
*À chaque fois, **c'était clair pour eux ce que j'avais**, les problèmes que j'avais, et ils étaient tranquilles. Cela m'a permis de relâcher la pression.*

(Homme, 48 ans)

References: Lopes AMDS, Giacomini S, Ulahannan A, Darnac C, Bugeia S, Gutknecht G, Colomer-Lahiguera S, Spurrier-Bernard G, Latifyan S, Addeo A, Michielin O, Eicher M. Acceptability of an Electronic Patient-Reported Outcomes-Based Model of Care to Monitor Symptoms Related to Cancer Treatment with Immune Checkpoint Inhibitors: Results from the lePRO Randomized Controlled Trial. Semin Oncol Nurs. 2025 Aug;41(4):151903. doi: 10.1016/j.soncn.2025.151903. Epub 2025 May 24. PMID: 40413059.

Demandez-moi ce qui compte pour moi et quel est le meilleur moment pour me poser des questions

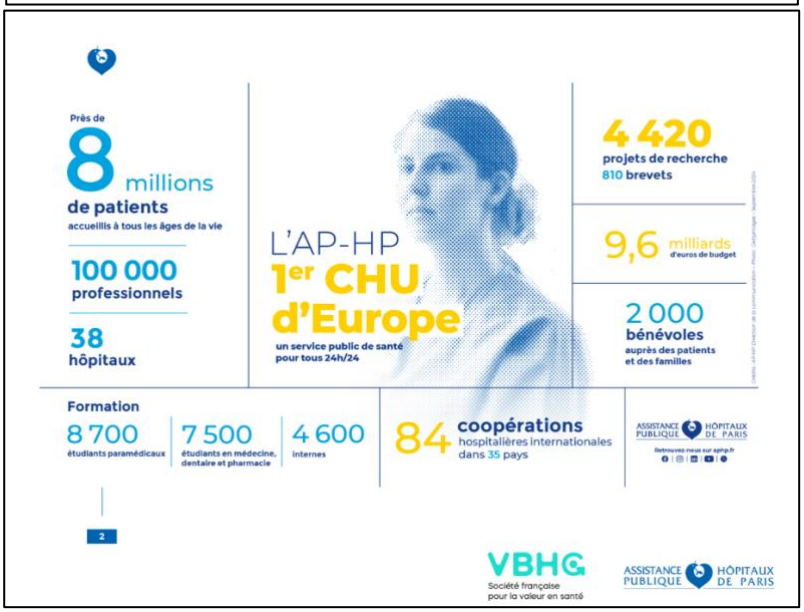
Peut-être que je suis trop embrouillée pour vous répondre

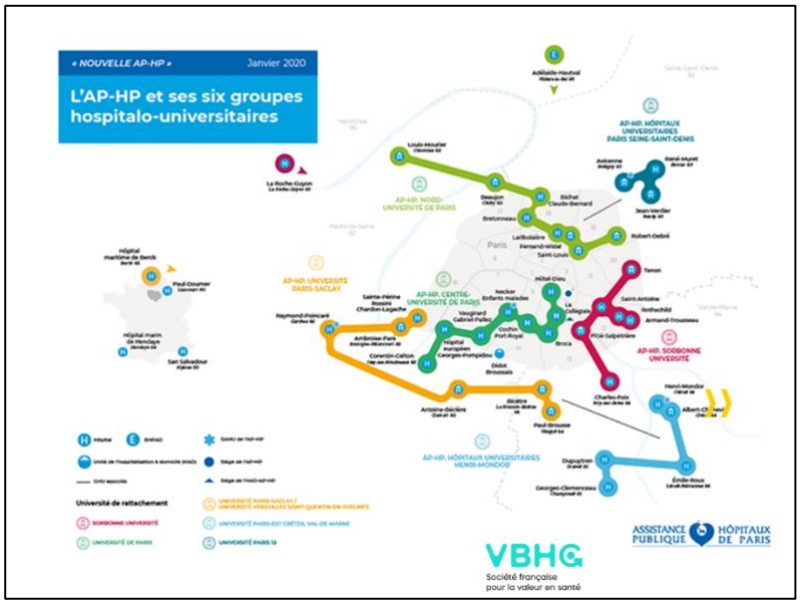
Peut-être que ce qui m'importe vous a échappé

Peut-être que vous prenez trop de pincettes avec moi

Peut-être que ce n'est pas le moment

Présentation par Virginie Luce-Garnier





VBHC : contexte français

- **Une volonté marquée des tutelles de passer d'un financement au volume à un financement à la qualité :**
  - Evoqué dans les documents stratégiques de santé depuis 2018 (rapport Aubert) dernier en date : rapport Ricordeau
  - Création d'un compartiment qualité dans l'ONDAM hospitalier
  - Nouveau cycle de certification V6 : Recueil de PROMs = critère avancé

PROMS AP-HP

- **Volonté de plus en plus prégnante des cliniciens de recueillir et utiliser ce type d'indicateurs :**
  - Bases de données des sociétés savantes (EPITHOR, RENACOT…)
  - Multiples initiatives de recueil de PROMs
- **Pertinence d'un pilotage fondé sur la valeur :**
  - Associant cliniciens et équipes de direction autour d'un objectif commun
  - Les indicateurs VBHC sont la boussole d'une démarche d'amélioration continue

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Les projets institutionnels

PROMs AP-HP

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L'expérience AP-HP

Un pilote et intégration progressive des équipes

- **Pathologie : cancer du sein**
- **Pilote : Georges Pompidou**

Déploiement transversal sur l'ensemble de l'institution

- **Orthopédie**
- **Ensemble AP-HP**

PROMS AP-HP

Il n'y a pas qu'une façon de bien faire les choses

Progresser, c'est essayer, évaluer, améliorer

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Cancer du Sein : choix du pilote

File active de 450 nouvelles patientes/an environ

Motivation des équipes

- Intérêt scientifique pour la démarche
- Intégration au groupe de recherche européen VBHC cancer du sein
- Pertinence et ergonomie du thésaurus

PROMs AP-HP

Solutions SI

- Recueil de PROMs via Outil maison
- Recueil de CROMs via Dossier Patient informatisé
- Les 2 sont interfaçés
- Choix de ne pas avoir de tableau de bord formalisé, exploitation directe de la base de données brute

Hôpital Européen Georges Pompidou

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Cancer du Sein Hôpital Européen Georges Pompidou

Travaux réalisés courant 2019 :

- Organisation du recueil de CROMs dans le DPI
- Organisation du recueil de PROMs dans l'outil Hermès

Travaux réalisés courant 2020 :

- Conceptualisation du processus d'enrôlement des patientes
- Première patiente inscrite en février 2020
- Interruption due à la crise sanitaire jusqu'en octobre

Travaux réalisés courant 2021

En octobre : 50 patientes inscrites

PROMS AP-HP

- Persistance de difficultés à systématiser le recueil des PROMs
- Difficulté à effectuer le contrôle qualité de la base de données

Travaux réalisés courant 2022 :

- Rattrapage rétrospectif des CROMs des patientes des années 2021 et 2022 pour arriver à une base de donnée quasi exhaustive
- 150 patientes inscrites dans la base de données
- Certification OECI

2023 Interruption du recueil pour changement d'outil d'administration des PROMs

Octobre 2024

- Soutien de l'ARS IDF
- reprise du recueil avec un nouvel o
- 80 patientes inscrites sur 6 mois

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Sénologie Pompidou : premières inscriptions 2021

Le chirurgien présente la demarche à la patiente lors de la première consultation

L'infirmier d'accueil de consultation inscrit la patiente dans le Dossier patient informatisé

La patiente reçoit un email de connexion pour le premier questionnaire

La patiente reçoit un email pour chaque nouveau questionnaire

1/3 de réponses seulement

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Enquête auprès des patientes

Pourquoi ?

- Je n'ai pas réussi à créer mon compte
- Je n'aime pas les applications SI
- J'ai répondu trop tard
- J'ai oublié

PROMS AP-HP

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Solutions prévues

- **Les patientes ont oublié parce qu'elles ont reçu trop d'informations au même moment**
  - VBHC sera dorénavant proposé au moment de la consultation d'anesthésie — Non FAIT
- **Les patientes ont des difficultés à utiliser l'application**
  - Accompagnement par les infirmières de consultation
  - Simplification du processus d'authentification — FAIT
- **Retard pour renseigner le premier questionnaire**
  - L'équipe SI/DOP organise l'envoi de rappels email et téléphoniques — FAIT

PROMS AP-HP

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Ce qui fonctionne

- **Impliquer l'ensemble de l'équipe de professionnels de santé : Médecins, chirurgiens, Infirmiers, Aide-soignants**
- **Inscrire les tâches liées à VBHC dans le parcours de soin**
- **Expliquer la démarche :**
  - **Intérêt individuel : Proposition de soins de support sur la base des réponses aux questionnaires de qualité de vie**
  - **Intérêt collectif : montrer les évolutions permises par l'analyse des résultats**
- **Accompagner les patientes jusqu'à la première question du questionnaire**
- **Relances personnelles par téléphone**

PROMS AP-HP

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Le projet institutionnel

PROMS AP-HP

- En 2026 : extension du pilote aux 4 autres équipes de sénologie de l'AP-HP (file active 2000 nouvelles patientes par an)
- Structuration des CROMs dans le DPI institutionnel courant 2022, disponible depuis janvier 2024
- Choix d'un outil de recueil de PROMs institutionnel
- Intégration de VBHC dans le parcours de soin

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Orthopédie AP-HP : état d'avancement 2025

PROMS AP-HP

Recueil de CROMs

- Maquette de recueil CROMs construite avec la participation de 2 équipes
- Recueil disponible depuis janvier 2024

Recueil de PROMs commencé par une équipe en juin 2022, plus de 2000 patients dans la base en juin 2025

Extension

- Nécessité d'un choix d'outil de recueil de PROMs institutionnel
- Plusieurs équipes volontaires

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V. Luce-Garnier – APHP – VBHC

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Orthopédie AP-HP : difficultés

PROMS AP-HP

Périmètre

- Ensemble AP-HP
- Prothèse totale de hanche et prothèse totale de genou
- Les 5 équipes ayant l'activité la plus importante ont été contactées (environ 1500 séjours annuels au total)

Systèmes d'information :

- Portail patient prêt pour le recueil de PROMs
- Evolutions du DPI à organiser pour les CROMs
- Tableaux de bord extraits de l'entrepôt de données de santé

Communication collégiale d'orthopédie

Difficultés

- Démarche TOP-DOWN
- Niveaux de maturité différents des équipes cliniques
- Eloignement équipe SI/ Equipes cliniques
- Point d'attention +++ : accompagnement du déploiement en local
- Gestion des accès aux données

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V. Luce-Garnier – APHP – VBHC

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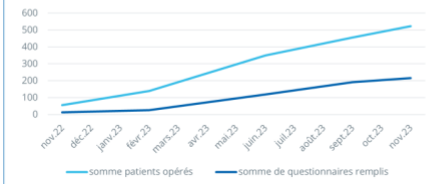
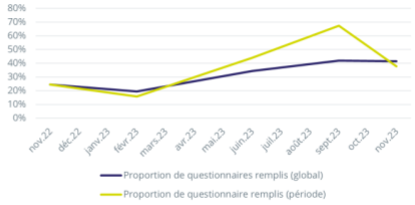
Recueil de PROMs





V. ROZIER (AMA), R. NIZARD (Chef de service) et S. BAZIN (IDE Coordination)

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FOCUS contraintes SI

PROMS AP-HP

- **Recueil des CROMs et des PROMs sous forme numérisée et structurée**
- **Construction d'une base de données commune avec PROMs et CROMs du même patient**
- **Pas de double saisie pour les professionnels**
- **Ergonomie pour les patients**
- **Restitution au fil de l'eau**

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Les contraintes SI

PROMS AP-HP

CROMs	PROMs
■ Pour être facilement exploitables, ils doivent être recueillis :	■ Questionnaires patients
▸ Via le Dossier patient informatisé	▸ Sous forme de questionnaires patients auto-administrés
▸ Sous forme structurée	■ Facteurs clé de succès :
■ Importance de prévoir la gestion de formulaires structurés lors de la création de Dossiers Patients informatisés...	▸ Recueil en ligne : nécessite une plateforme de recueil
■ L'utilisation d'une base de données dédiée est possible mais impose une double saisie et risque de décourager les équipes	▸ Relance automatique par mail, SMS, voire téléphone
	▸ Promotion par les professionnels de santé

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Notre cahier des charges outil de recueil de PROMs

PROMS AP-HP

- **Processus d'inscription par les professionnels et d'authentification par les patients le plus simple possible**
- **Respect de notre dictionnaire de données**
- **L'AP-HP garde la propriété des données, y compris agrégées**
- **Format de base de données compatible avec une restitution dans notre entrepôt de données de santé**
- **Restitution au fil de l'eau**
  - **Un tableau de bord patient individuel**
  - **Un tableau de bord de suivi des réponses pour les professionnels**
  - **Un tableau de bord de cohorte pour les professionnels**

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Les enseignements

PROMS AP-HP

- **C'est un travail de longue haleine**
- **C'est un projet qui nécessite le recours à de nombreux métiers et compétences**
- **L'adhésion des équipes médicales conditionne la réussite**
- **Importance du portage local et central**
- **Le recueil des données doit être le plus simple possible**
- **L'accompagnement des patients est indispensable**

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Pour en savoir plus

DEUXIEME JOURNÉE DE LA VALEUR EN SANTE :
LUNDI 07 NOVEMBRE 2025
Paris, Grand amphithéâtre GHU Paris - Psychiatrie&neurosciences
1, rue Cabanis, Paris 14

VBHC Société française de la valeur en santé

Virginie Luce-Garnier : virginie.garnier2@aphp.fr

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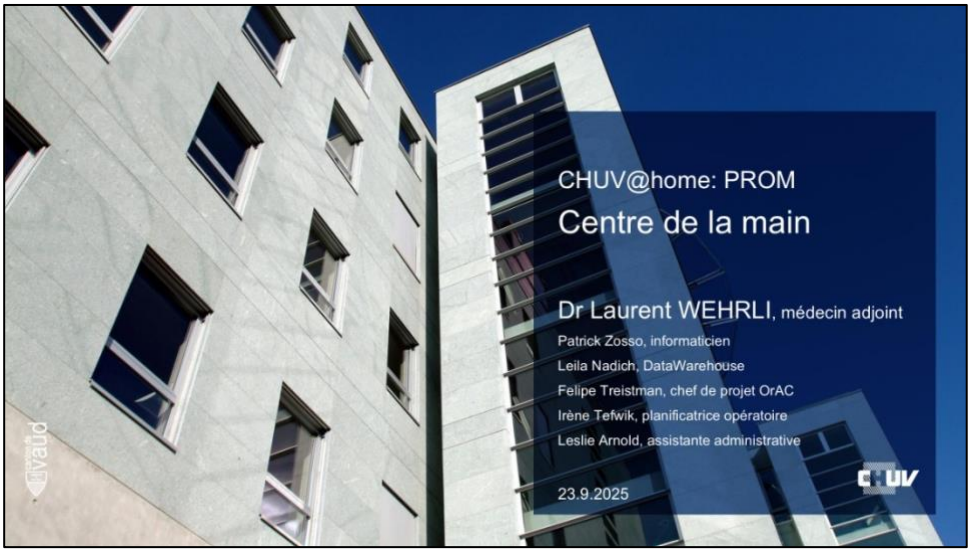
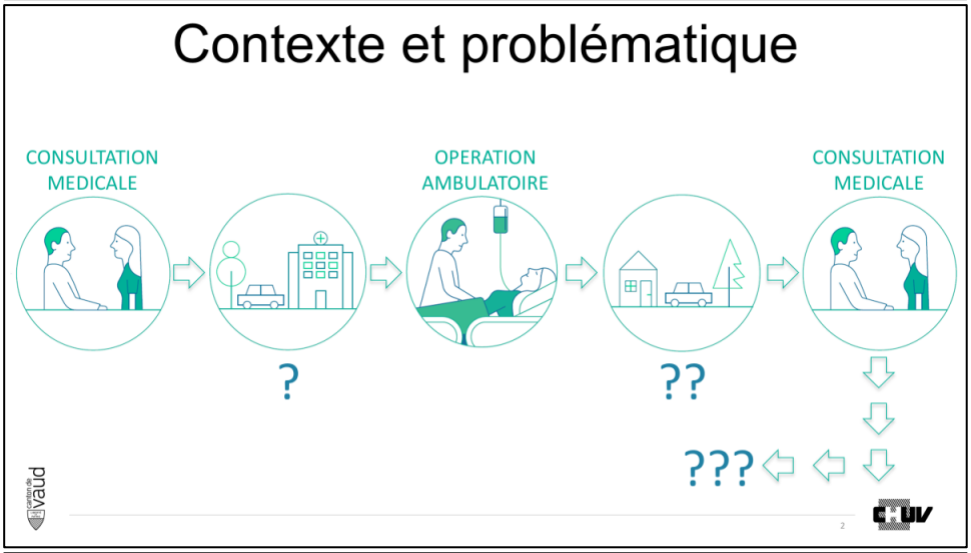
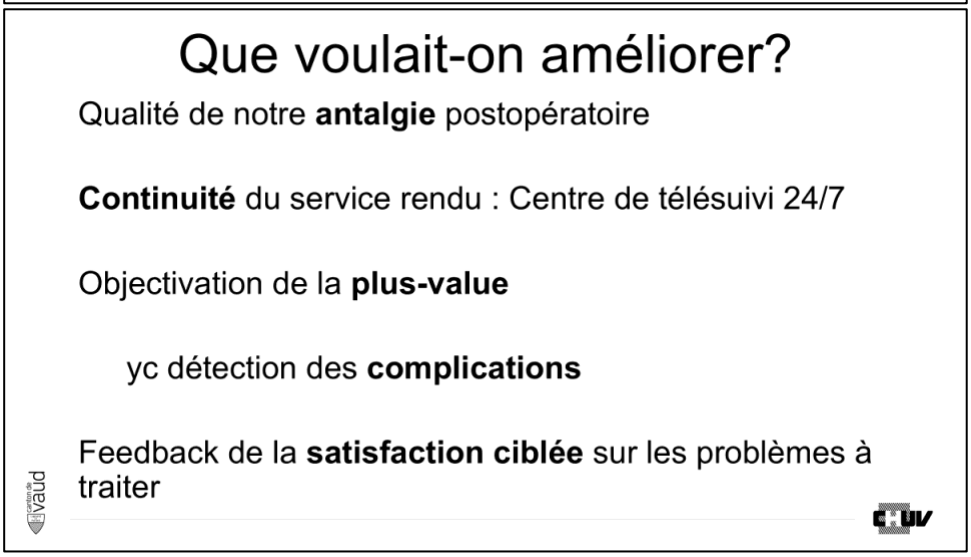
Présentation par Laurent Wehrli





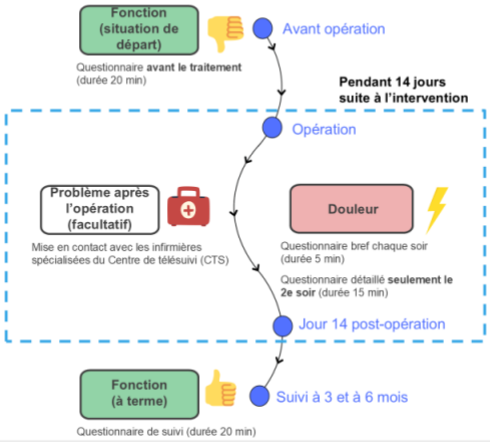


Histoire des PROM connectées au Centre de la main

- 2017: collaboration avec MVSanté (partenariat public – privé)
  - Application MVS Connect
- 2019: suivi des douleurs postopératoires sur 14 jours
  - devient la norme clinique
  - COVID 2020: CHUV@home remplace MVS Connect
- 2020: accord Commission d'éthique (réutilisation des données)
  - 2019-2020: Etude «Facteurs prédictifs» de la douleur postop
- 2023: projet pilotage par tableau de bord
- 2024: ajustement des risques
- 1.10.2025: lancement systématique du parcours PROM FONCTION

4

Evaluation de santé subjective par le patient (PROM)



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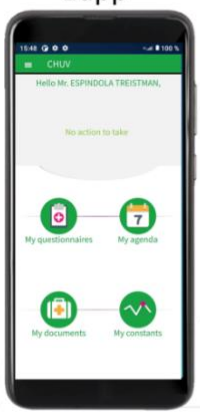
2 outils CHUV@home

L'app



Le tableau de bord

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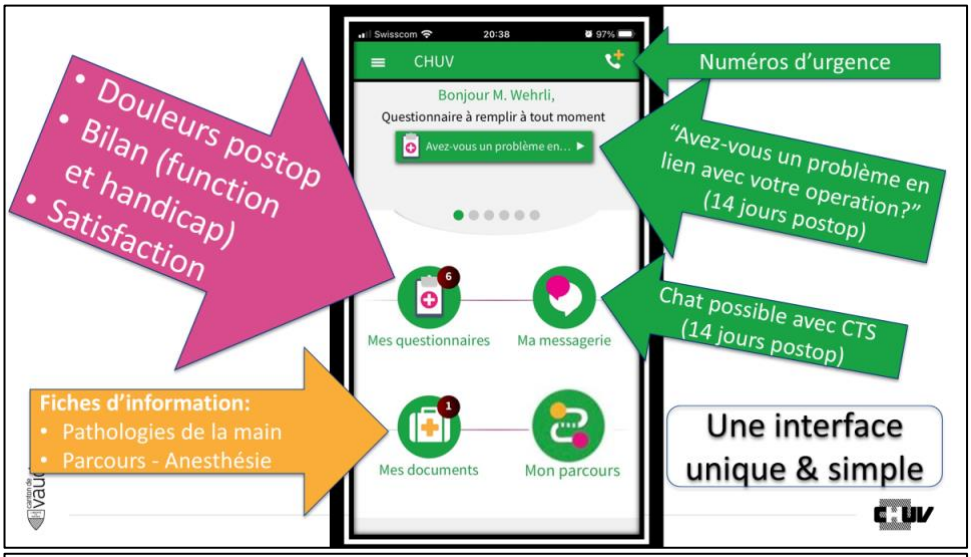
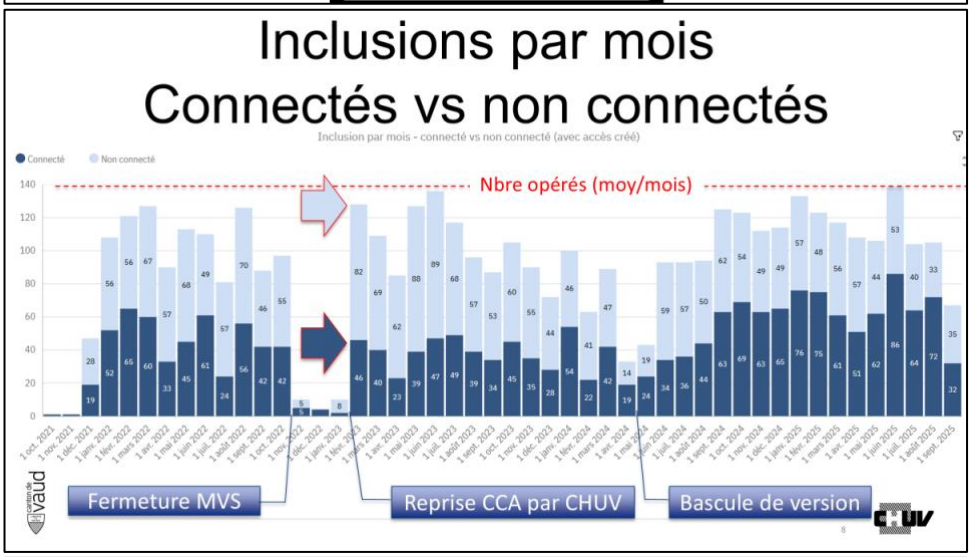
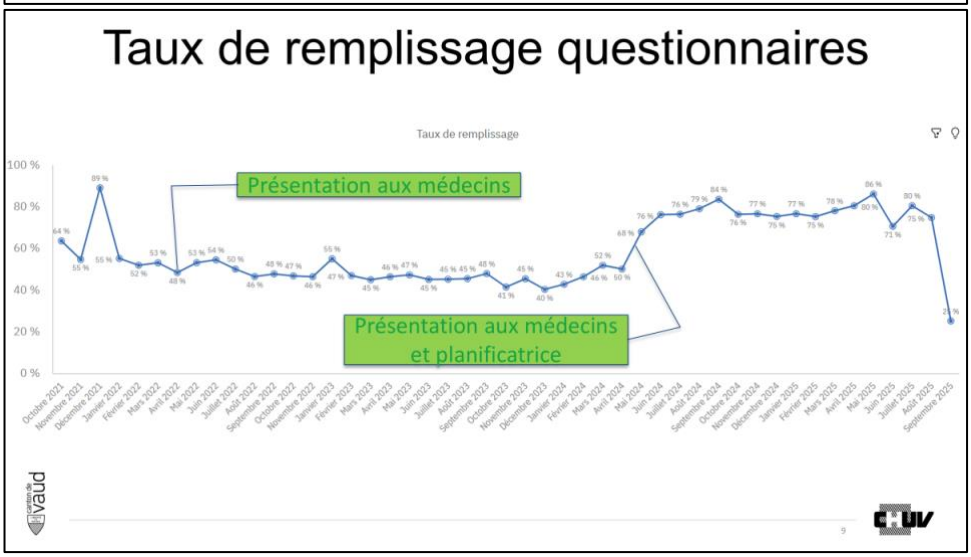
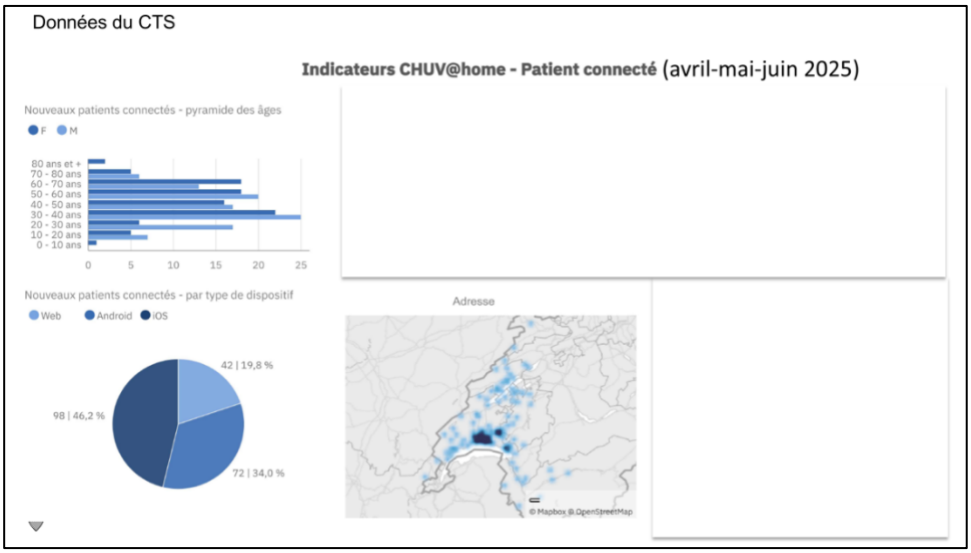
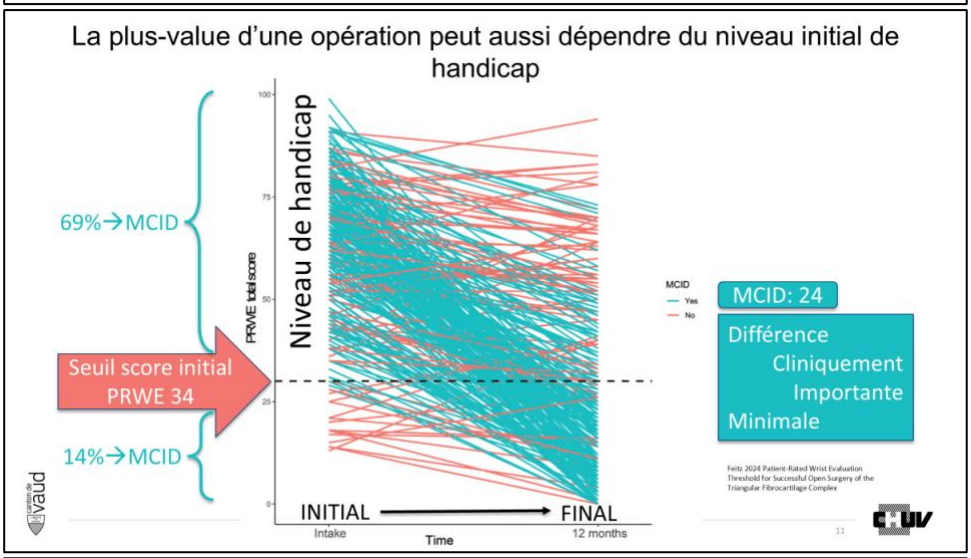
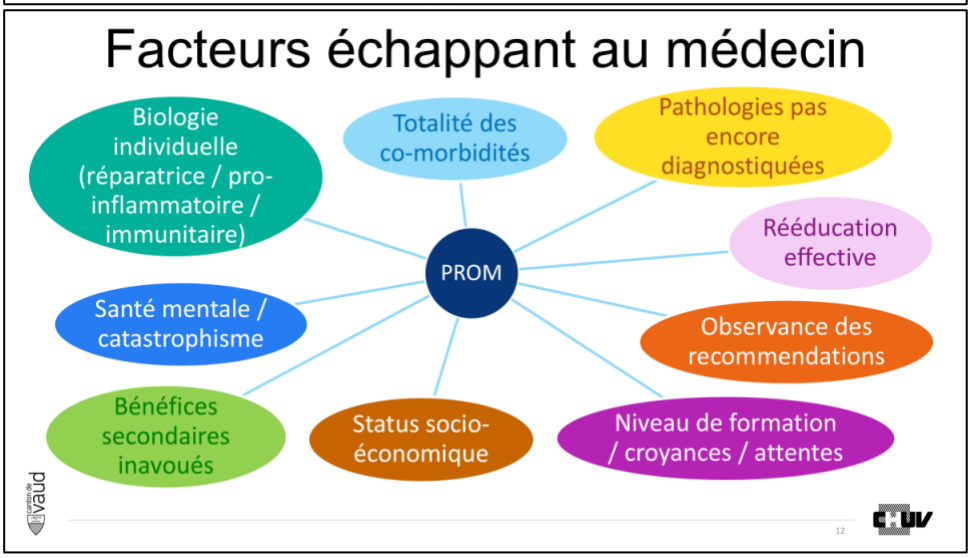

• Douleurs postop
• Bilan (function et handicap)
• Satisfaction
Swisscom 20:38 97%
CHUV
Bonjour M. Wehrli,
Questionnaire à remplir à tout moment
Avez-vous un problème en…
Numéros d'urgence
"Avez-vous un problème en lien avec votre operation?" (14 jours postop)
Chat possible avec CTS (14 jours postop)
Mes questionnaires
Ma messagerie
Fiches d'information:
• Pathologies de la main
• Parcours - Anesthésie
Mes documents
Mon parcours
Une interface unique & simple


Inclusions par mois
Connectés vs non connectés
Inclusion par mois - connecté vs non connecté (avec accès créé)
Connecté
Non connecté
Nbre opérés (moy/mois)
Fermeture MVS
Reprise CCA par CHUV
Bascule de version


Taux de remplissage questionnaires
Taux de remplissage
Présentation aux médecins
Présentation aux médecins et planificatrice


Données du CTS
Indicateurs CHUV@home - Patient connecté (avril-mai-juin 2025)
Nouveaux patients connectés - pyramide des âges
F M
80 ans et +
70 - 80 ans
60 - 70 ans
50 - 60 ans
40 - 50 ans
30 - 40 ans
20 - 30 ans
10 - 20 ans
0 - 10 ans
0 5 10 15 20 25
Nouveaux patients connectés - par type de dispositif
Web Android iOS
42 | 19,8 %
98 | 46,2 %
72 | 34,0 %
Adresse
© Mapbox © OpenStreetMap


La plus-value d'une opération peut aussi dépendre du niveau initial de handicap
69%→MCID
Seuil score initial PRWE 34
14%→MCID
PRWE total score
Niveau de handicap
INITIAL
FINAL
Intake
Time
12 months
MCID
Yes
No
MCID: 24
Différence Cliniquement Importante Minimale
Feitz 2024 Patient-Rated Wrist Evaluation Threshold for Successful Open Surgery of the Triangular Fibrocartilage Complex
11


Facteurs échappant au médecin
Biologie individuelle (réparatrice / pro-inflammatoire / immunitaire)
Totalité des co-morbidités
Pathologies pas encore diagnostiquées
Rééducation effective
PROM
Santé mentale / catastrophisme
Observance des recommandations
Bénéfices secondaires inavoués
Status socio-économique
Niveau de formation / croyances / attentes
12

En conclusion

L'engagement des patients dans leurs PROM est aussi proportionnel à:

- l'engagement des professionnels de santé (info, retour, utilisation)
- au bénéfice perçu (direct et immédiat)
- à la facilité technologique de recueil et de visualisation

Ce projet au Centre de la main a pour objectifs de:

1. Soutenir la **décision partagée** avec le patient — Préop cas chroniques
2. Adapter l'**antalgie** (INF +/- MED) — Postop immédiat
3. Quantifier les **bénéfices** fonctionnels d'un traitement (REEDUC & MED)
4. Détecter et atténuer les **complications** postopératoires — Suivi individuel
5. Clarifier les **facteurs** de risque/favorisant: — Données agrégées
    - Douleurs postop
    - Complications postop
    - Diminution de la gêne fonctionnelle subjective

Direction médicale

En partenariat avec

VBHCSUISSE
Swiss Society for Value Based Healthcare

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