Talking Value: A Taxonomy on Value-Based Healthcare

European
Alliance for
Value in Health

December 2022

About this report

This report presents the outcomes of the “Value-Based Healthcare Taxonomy” initiative, conducted by the European Alliance for Value in Health (hereafter the “Alliance”), in collaboration with Vintura.

Value-based healthcare (VBHC) has evolved significantly since its conception. Alongside this, the use of language and terms related to VBHC has also evolved. However, in practice, there is considerable diversity in the usage of these terms and the underlying meanings that they intend to convey. This presents challenge when engaging different stakeholders.

For the Alliance to achieve their Vision and Mission (see right), clear communication is needed between a range of stakeholders; from patient groups, care givers and healthcare practitioners, to policy-makers, payers, research groups and beyond. Even if our native tongue differs, we need to speak the same language of VBHC.

This taxonomy initiative forms the first step in the road towards a common language. It aims to sharpen the debate on VBHC, by ensuring stakeholders have a common understanding of related terms, and that these terms are used consistently across different stakeholder groups. This taxonomy includes terms which are commonly-used in VBHC, and are either well-defined in the literature (27 terms) or not well-defined in the literature and/or have multiple definitions in use (15 terms). To develop and refine descriptions for the latter, an Adapted Delphi methodology was employed, in collaboration with the Partners of the Alliance, their members, Affiliated Organisations and additional VBHC experts.

The **VISION** of the Alliance for Value in Health is a Europe, where health systems are value-based, sustainable, and people-centred

Our **MISSION** is to partner to facilitate health system transformation, by disseminating knowledge and best practices, and engaging with policy makers and stakeholders – at European, national, and regional levels

Overall, this VBHC Taxonomy initiative proved to be more than just a starting point. It represents a milestone towards creating a common language, and a common goal; namely the transformation of healthcare to be more value-based. For the Alliance, this has sparked a lively discussion on our role and the opportunity we have to be a part of this transformation. We hope to keep the debate alive, and engage in further collaboration with different stakeholders in future, and move towards our vision of a Europe where health systems are value-based, sustainable and people-centred.

Acknowledgements

We would like to thank all Partners, Affiliated Organisations, related member organisations and VBHC Experts which have been involved in the development of the VBHC taxonomy. In particular, the initiative leads, Jacqueline Bowman-Busato (EASO) and Ioanna Charalampopoulou (COCIR), and the co-chairs of the Alliance, Thomas Allvin (EFPIA) and George Valiotis (EHMA).

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Goals and objectives

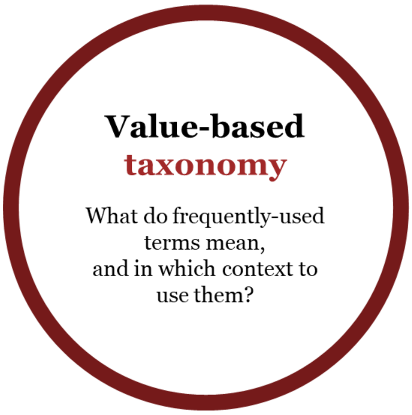
Different interpretations and usage of value-based healthcare (VBHC) terms lead to misalignment and hinders progress. Describing the definition and scope of terms ensures that different stakeholders can understand each other with a common language.

The main objective of this initiative was to develop a clear and robust set of descriptions for terms relating to VBHC, to act as the basis of this common language. The secondary objective was to broaden and deepen connections between organisations working in VBHC; therefore the taxonomy was developed with involvement from the Partners of the Alliance, their members, Affiliated Organisations and additional VBHC experts.

The terms in the taxonomy relate to the Alliance's Mission, Vision and the 6 Principles (which can be found here: Our Principles). The taxonomy is not intended to be exhaustive, but to serve as a basis for key terms, which can be built upon in future.

The goals of the VBHC taxonomy are summarised in Figure 1.

Figure 1: Goals of the Value-Based Health Care Taxonomy



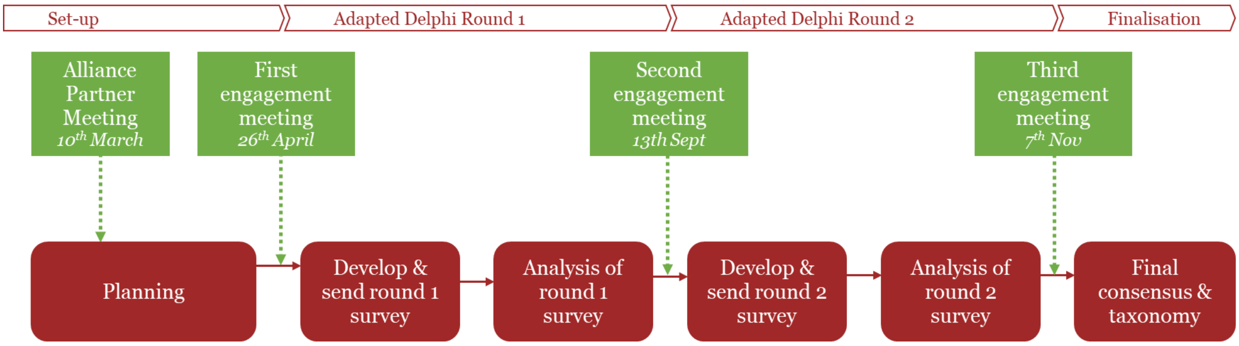
The VBHC taxonomy aims to:

- Provide a common language that will enable Alliance partners and member organisations to discuss and align on how to implement person-centred, value-based healthcare at all levels
- Form a basis for discussions both within the community directly involved as well as towards any external stakeholders (incl. citizens)
- Allow stakeholders that are newer to the topic to learn and become champions and trainers within their own communities

Methods

An Adapted Delphi study was employed to develop the VBHC taxonomy; consisting of two Delphi survey rounds and three Engagement Meetings (see Figure 2). The purpose of the Delphi survey rounds was to gather qualitative and quantitative insights on the potential descriptions of VBHC terms and understand the level of consensus, whilst the Engagement Meetings enabled refinement of descriptions through collaborative discussions. For both the Delphi surveys and the Engagement Meetings, participants included the Partners of the Alliance, their members, Affiliated Organisations and additional VBHC experts. The Delphi analysis was executed by an appointed Research Team[1].

Figure 2: Steps taken for the Adapted Delphi study



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[1] The Research Team includes members from Vintura and an independent researcher.

During the project's 1st Engagement Meeting, participants were consulted to discuss and develop a list of the 15 VBHC-related terms that were most relevant to the Alliance. Then, a literature scan was performed to identify and copy several existing definitions for each term[2]. The literature scan was performed in the Pubmed-database and in Google Scholar. Search terms included the name of the term and/or synonyms and/or the word 'definition'. The most prominent (most cited) articles and reports were analysed to formulate a clear and concise description of each term. Although the scan of the literature was systematic, it was not exhaustive, because the goal was not to find the 'best' definitions, but to find definitions to create 'starting point'- descriptions for the first survey round (as a basis for discussion). This resulted in 2-4 descriptions per term, based on the literature.

In the 1st survey round, participants were invited to rate and refine these literature-based descriptions (based on 3 qualitative and 3 quantitative questions per term). Respondents were asked to rate the descriptions between 0 (the description is not suitable at all) to 9 (the description describes the term perfectly). For the refinement, respondents were asked to indicate: [i] which components within each description were important to include; [ii] whether any specific components were missing; and [iii] what their own ideal description would be. The Research Team analysed the responses and defined the degree of consensus. Terms were subsequently designated into 1 of 4 categories based on the following decision rules (based on answers to the rating question above)[3]:

1.	**Consensus**	≥70% of respondents rated the description 7-9 AND <15% rated 1-3
2.	**Approaching**	60-70% of respondents rated the description 7-9 OR ≥70% of respondents rated the description 7-9 AND >15% rated 1-3
3.	**Half consensus**	50%-60% of respondents rated the description 7-9
4.	**No consensus**	<50% of respondents rated the description 7-9

The responses on the components of each description were analysed, to understand which aspects were most important to respondents. Finally, a qualitative text analysis was performed on the answers of the qualitative questions, by coding and clustering words and sentences. Based on this analysis, the highest-rated descriptions per term were adjusted accordingly.

The results of the 1st survey round were discussed during the project's 2nd Engagement Meeting. Descriptions that reached consensus were included 'as is' in the 2nd Delphi round, along with 1-3 adapted descriptions based on the given input. For terms where none of the descriptions reached consensus, the discussion in the Engagement Meeting was used to adapt the descriptions. This resulted in 2-4 new (improved) descriptions per term that were included in the 2nd Delphi survey round.

In the 2nd (and final) survey round, respondents[4] were invited to rate and rank these refined descriptions to measure the degree of consensus (using the same decision rules as in the 1st survey round above). This survey round resulted in 7 descriptions which reached consensus, that were included "as-is" in the taxonomy, and 7 descriptions which were approaching consensus, which were discussed and refined during the 3rd Engagement Meeting.[5]

Results

The deliverable of this initiative is the VBHC Taxonomy of the Alliance; a glossary of terms with descriptions. This list includes the 14 terms[6] that were included in the Delphi study, plus a further 27 terms with descriptions based solely on the literature. A total of 27 respondents answered the 1st Delphi survey, and 60 respondents answered the 2nd Delphi study.

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[2] Further detail on the literature analysed for each term can be found in Appendix 2.

[3] The same methodology was employed as that by: Schapira MM, Williams M, Balch A, Baron RJ, Barrett P, Beveridge R, Collins T, Day SC, Fernandopulle R, Gilberg AM, Henley DE, Nguyen Howell A, Laine C, Miller C, Ryu J, Schwarz DF, Schwartz MD, Stevens J, Teisberg E, Yamaguchi K, Schapira E, Hubbard RA. Seeking Consensus on the Terminology of Value-Based Transformation Through use of a Delphi Process. Popul Health Manag. 2020 Jun;23(3):243-255

[4] Further details on the respondents for the Delphi survey can be found in Appendix 1, including the number of respondents per term and the names of the organisations which completed the survey.

[5] Further details on the output of the Delphi survey can be found in Appendix 1, including the level of consensus per term.

[6] After the first survey round person-centred care and patient-centred were merged to one term: person-centred care.

Further conversations and efforts are needed to explore and decide how this taxonomy can be used amongst stakeholders working in VBHC; both those connected to the Alliance and those who are not. Additionally, the Engagement Meeting discussions showed that the taxonomy is a starting point and can be used to further sharpen the debate on transforming healthcare towards a value-based approach.

Descriptions developed

We have 3 categories of descriptions: (1) terms that reached consensus in the Delphi analysis, (2) terms that approached consensus in the Delphi analysis, and (3) terms that were not included in the Delphi analysis, but are included in the Taxonomy with a description solely based on the literature.

1. Terms that reached consensus

Following the second Delphi survey, 7 descriptions reached consensus (see "Methods" for the decision rules to determine the degree of consensus reached):

Term	Description
Costs	Costs consist of direct and indirect costs of providing health care. Direct costs are both medical costs, and non-medical costs – such as those related to travel of providing health care. Indirect costs are costs incurred by patients due to e.g. loss of production (due to incapacity for work, occupational disability, or death), by their carers or families (e.g., those looking after a person when ill or providing ongoing care), and hence to society as a whole.
Integrated care	Integrated care consists of health services that are managed, resourced and delivered so that people receive a continuum of health promotion, disease prevention, diagnosis, treatment, disease-management, rehabilitation and palliative care services, coordinated across the different levels and sites of care within and beyond the health sector, and according to their needs throughout the life course.
Patient journey	A patient journey represents the entire sequence of events that a patient experiences within a given healthcare system or across providers, from prevention and self-management to receiving treatment for an illness or injury. A patient journey is an ongoing process that incorporates all parts of the healthcare ecosystem, from community, informal, and primary care, to hospitals, physicians, specialty care and outpatient therapy.
Person-centred care	Person-centred care is care in which people and their care teams form partnerships around high quality, accessible care, which is both evidence-based and delivered in an efficient manner, and in which patients' and caregivers' individual preferences, needs and values are paramount.
Precision medicine	Precision medicine is a healthcare approach that utilises molecular information (genomic, transcriptomic, proteomic, metabolomic, etc.), phenotypic and health data from patients to generate care insights to prevent or treat human disease resulting in improved health outcomes. It focuses on giving the right treatment, to the right patient at the right time.
Prevention	Prevention is action to reduce or eliminate the onset, causes, complications, or recurrence of disease. Several levels are defined: primordial prevention (preventing the emergence of predisposing social and environmental conditions that can lead to causation of disease); primary prevention; secondary prevention; and tertiary prevention to improve function, minimise impact, and delay complications.
Value-based payment models	Value-based payment models shift payments from volume-based to value-based payments (health outcomes/costs). They align reimbursement with the achievement of value-based care in a defined population in which healthcare service providers (in partnership with patients and health care organisations) are held accountable for achieving financial goals and health outcomes that matter to patients. Value-based payment encourages risk-sharing and optimal care delivery, including coordination across health care disciplines and between the health care system and community resources, to improve health and social outcomes for both individuals and populations.

2. Terms that approached consensus

A further 7 descriptions were “approaching consensus” following the second Delphi survey (see “Methods” for the decision rules to determine the degree of consensus reached). The 3rd Engagement Meeting was used to discuss these descriptions, and incorporate some minor alterations for improvement. The final descriptions are as follows:

Term	Description
Care pathway	Care pathway refers to the stages an individual person has in the management of his or her condition. A care pathway is designed by health and care professionals to organize the care processes for a well-defined group of patients during a well-defined period. The care pathway is adapted according to the patient's need through shared decision-making between the provider and patient.
Health equity	Health equity is the absence of systematic and potentially remediable differences in health status (e.g. length of life, quality of life, rates of disease) or in the distribution of health resources (e.g. access to treatment) between different population groups defined by socially, economically, demographically, geographically or other dimensions of inequality (e.g. sex, gender, ethnicity, disability or sexual orientation). Health equity is achieved when everyone can attain their full potential for health and well-being and no-one is disadvantaged from achieving this potential because of social position or other socially determined circumstances.
Health outcomes	Health outcomes capture the (measurable change in) state of health and wellbeing (physical, mental and social) that result from specific health interventions. There are different types of outcomes: patient reported, clinical or population-level outcomes.
Health system performance	A high performing health system is a system that delivers the best possible outcomes for patients and service users within the resources available. Health system performance has three dimensions: accessibility, quality, and efficiency. Together, these determine the extent to which the best possible outcomes can be attained. Accessibility describes the extent to which patients are able to get the care they need when they need it. Quality describes the extent to which the right care is delivered in the right way. Efficiency describes the extent to which accessibility and effectiveness are optimized in relation to the resources expended.
Personalised care	Personalised care is tailor-made treatment for individuals or groups of individuals that works best for them. People have choice and control over the way their care is planned and delivered. Care is based on ‘what matters’ to them and their individual strengths and needs. Personalised care empowers people to have a voice.
Value	Value is a comprehensive concept that is an interaction between outcomes for people and patients, and the resources spent by health systems and societies to achieve these outcomes. Value is more than just monetary value and can be subjective.
Value-based health system	A value-based health system is organised and resourced to maximise the health outcomes most important for patients and populations, while simultaneously making healthcare more sustainable, accessible and resilient.

3. Terms with descriptions based on the literature:[7]

Term	Description
Allocative value	Allocative value represents an equitable distribution of resources across all patient groups.
Bundled payments	Bundled payment is a one-off or periodic lump-sum payment for a range of services delivered by one or more providers based on best practices or by following clinical pathways with an increasing

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[7] The appendix presents the literature used per term. These terms have not been included in the Delphi.

	emphasis on outcomes. Financial and clinical accountability are shifted to a single provider organisation/group of collaborative organisations. Care is coordinated across settings, amount spent is limited, and interests are aligned, to deliver services in different way. This is a broader transformation to a more sustainable VBHC system, based less on short-term and more on long-term collaborative relationships between payers and providers.
Capitation based payments	Capitation payment for services delivered by different providers or at different levels of care is combined into a single prospective payment to an integrated care organization (ICO) or a large physician group. The provider is responsible for delivering all needed care for a defined population and for distributing payments to their constituent providers out of the capitation pool. The core concept is that total payment does not vary based on actual services provided to individuals in the population served. It can be seen as a per member per month payment and are adjusted at least for age and sex. Insurance risk and technical risk are under providers' control.
Community based care	Community based care is a public health approach by treating patients with specific clinical needs that can be cared for in a nonacute care hospital setting. It is the delivery of medical care and education in the community setting.
Continuous learning	Health providers have to keep up with new techniques and technologies and expand their knowledge and skills, because the healthcare industry is continuously evolving and changes quickly. Continuous learning is thus a necessity to provide high-quality care. In this way, healthcare professionals can enhance the quality of care and outcomes for patients. Health systems should reward outcomes and implement collaborative systematic care models that promote optimal outcomes.
CROM	Clinician Reported Outcome Measures (CROMs) are clinical outcomes and are mostly obscure to patients. Terms like blood pressure, cholesterol, prostate specific antigen (PSA) and complications may be incorporated in CROMs. Complications are one of the health outcome indicators and represent a medical problem that occurs during a disease, or after a procedure or treatment. The complication may be caused by the disease, procedure, or treatment or may be unrelated to them. Examples of complications are mortality or readmission.
Efficiency	Allocative efficiency refers to how resource inputs are combined to produce a mix of different outputs. This is achieved when it is not possible to increase overall benefits produced by the health system by reallocating resources between programs. Technical efficiency refers to achieving maximum outputs with the least costs. It reflects the relationship between resource inputs and outputs. Overall efficiency combines allocative efficiency and technical efficiency together.
Health system fragmentation	Health system fragmentation can be defined as the “division without explicit means of coordination” of functions (e.g., financing, provision) or agents (e.g., payers, providers) in a health system or its sub-system. It can be further characterised by the existence of many non-integrated entities that operate without synergy and often in competition and encompass a lack of coordination among organizations, functions, and governance systems. Fragmentation of health systems financing can be considered across six dimensions. Specifically, these cover the number of different organizations, risk pooling mechanisms, groups of beneficiaries, benefits packages, combinations of premiums, and payment mechanisms in a health system, with

	increasing numbers considered indicative of higher system fragmentation.
Home based care	Home based care is the care of patients (with chronic or terminal illnesses) extended from the hospital or health facility to the patients' homes through family participation and community involvement within available resources and in collaboration with health care workers.
Horizontal integration	Horizontal integration is based on partnering providers which provide health services to clients on the same or similar level. Horizontal integration may occur for example between physicians or between hospitals.
Indicators	Quality indicators are measurable elements of practice performance and may relate to process, outcome and structure. Outcome measures reflect the impact on the patient and demonstrate the end result of your improvement work and whether it has ultimately achieved the aim(s) set (e.g. reduced mortality, reduced length of stay, reduced hospital acquired infections, improved patient experience). Process measures reflect the way your systems and processes work to deliver the desired outcome (e.g. length of time a patient waits for a senior clinical review, if a patient receives certain standards of care or not, if staff wash their hands). Structure measures reflect the attributes of the service/provider (e.g. staff to patient ratios, operating times of the service). These are otherwise known as input measures. Measurement for improvement has an additional component – balancing measures. These reflect unintended and/or wider consequences of the change that can be positive or negative. It is about recognising these and attempting to measure them and/or reduce their impact if necessary. An example of a balancing measure would be monitoring emergency re-admission rates following initiatives to reduce length of stay.
Integrated Practice Units	Integrated Practice Units (IPU's) organize care around the patient's medical condition to organize around the customer and the need. In an IPU, a dedicated team made up of both clinical and nonclinical personnel provides the full care cycle for the patient’s condition. It contains an additional set of characteristics that represents a further stage of development, such as more formal organizational of the team, the team’s finances, involving the “whole cycle of care,” and feedback on outcomes and costs.
Multidisciplinary care teams	Multidisciplinary care teams are comprised of multiple health professionals from several different disciplines, which brings together expertise and skills of different professionals. The team members assess, plan and manage care jointly to address as many aspects of a patient's care as possible. It is a mechanism to organize and coordinate health and care services to meet the needs of individuals (with complex care needs).
Pay-for-performance	Pay-for-performance model consists of financial incentives or penalties based on provider's ability or inability to meet certain performance expectations based on predetermined measures to improve quality provided to patients. The model measures performance using clinical process and outcome measures and surveys on patients' experiences with care. Formulations of P4P differ based on whether providers attain a certain level of performance or improve from a baseline performance enough to qualify for bonuses.
Personal value	Personal value represents appropriate care to achieve patients' personal goals (outcomes that matter to people and patients). Personal value ensures that each individual patient's values are used as basis for decision-making in a way that will optimise the benefits for them. Patient relevant outcomes reflect the effect of

	changes in the individual patient's health status with respect to outcomes that matter to patients. The most common patient relevant outcomes are based on quality of life and survival and incorporate symptoms, adverse events/complications, survival/mortality, and (co)morbidities.
PREM	Patient Reported Experience Measures (PREMs) are standardized, validated questionnaires measuring patients' perceptions of their experience whilst receiving care. It measures mainly the health process and the accompanied experiences of patients with healthcare and services (care delivery experiences).
PROM	Patient Reported Outcome Measures (PROMs) are standardized, validated questionnaires used to study how patients feel about their health status. It measures the experienced health and quality of life of patients and outcomes are often measured periodically to follow trends over time. Other examples of specific factors measured are symptoms, distress/anxiety, pain after surgery, recovery time before returning to work, and unmet needs. The quality of life measured in PROMs is an example of a patient-reported outcome and measures an individual's perception of their position in life. This is perceived in the context of the culture and value systems in which people live and in relation to their goals, expectations, standards and concerns.
Quality of care (health outcomes, process and structure)	Quality of care is the degree to which health services for individuals and populations increase the likelihood of desired health outcomes. Evaluating quality of care consists of three components and underpins measurement for improvement. The three components are structure, process and outcomes. First, structure measures the physical and organisational characteristics where healthcare occurs. This is followed by process which focusses on the care delivered to patients e.g. services, diagnostics or treatments. Lastly, outcome measures the effect of healthcare on the status of patients and population. Each of the different types of measures has a different purpose in determining whether the improvement project has had the desired impact.
Resource allocation	Resource allocation is the distribution of resources, usually financial, among competing groups of people or programs. When we talk about allocation of funds for healthcare, 3 different types of allocation should be considered: allocating resources to healthcare versus other social needs, within the healthcare sector and among individual patients.
Shared decision making	Patients and providers together decide upon the best possible and suitable treatment or intervention for the patient. The disease is followed and discussed with the patient. Providers must understand what matters to people, what their views are, their priorities and what their preferences are. Patients must know all risks/harms and benefits of specific treatments. The goal is to let patients understand and make them feel supported in making good decisions. Hence in shared decision making, a healthcare provider communicates personalised information to the patient about the options, outcomes, probabilities, and scientific uncertainties of available treatment options, and the patient communicates their values and the relative importance they place on benefits and harms.
Shared savings	Shared savings reward or penalise (shared risk) care organisations for spending performance in relation to spending targets for a population of patients. Whenever spendings are lower than the target, care organisations are rewarded. These savings can be distributed to its members. In this model, care organisations are reliant on quality performance measures. Providers will not receive savings unless quality performance

	thresholds are met. Incremental rewards or penalties are provided on top of other base payment methods.
Social care	Social care is the care and support of vulnerable people, usually in the community. Broadly, it can be defined as all forms of personal and practical care and assistance and is primarily aimed at supporting individuals in ways that allow them to live independently. Social connectivity embodies feeling connected to the individuals, community, and environment in which one resides.
Societal preferences	Societal preferences describe the human tendency to not only be motivated by material self-interest, but also care negatively or positively for material payoffs of relevant reference groups.
Societal value	Societal value represents the contribution of healthcare to social participation and connectedness. It is the intrinsic value of good health as enabler to participate in society and solidarity as contributor to social cohesion of equal individuals. The societal values of solidarity are access and equity, quality and performance, and efficiency and productivity.
Technical value	Technical value represents achievement of the best possible outcomes with available resources.
Value-based procurement	Value-based procurement involves making purchasing decisions that consider how a product or solution can best deliver the outcomes being measured and reduce the total cost of care — rather than focusing exclusively on purchasing a specific product at the lowest possible price.
Vertical integration	Vertical integration is based on coordinating healthcare services by complementing each other and thus fulfilling patients' needs on various levels. There are many different combinations of parties where vertical integration can take place. It may arise between hospital and physicians, between insurers and hospitals, between hospitals and suppliers of medicines, etc.

About the European Alliance for Value in Health

The European Alliance for Value in Health is a group of associations representing stakeholders active in the broader European health systems. The Alliance aims to accelerate the transformation towards value-based, sustainable and people-centred health systems in Europe. For more information on the European Alliance for Value in Health, please reach out:

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