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perspectives brief

title

Dental Health Services Victoria: Journey to Value Based Healthcare

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Background

Value-based healthcare (VBHC) is a framework for the design, delivery, funding, reporting and evaluation of health services, which aims to maximise improvements in health outcomes that matter to patients relative the cost of delivering that care (1). This approach incentivises all stakeholders in the system to deliver better health outcomes, by prioritising care for demographic cohorts likely to derive a greater benefit of care, delivering individualised interventions, improving the quality of clinical care and minimising waste (2, 3). It takes a systemic approach to integrate VBHC into service provision models, requiring all actors and services within the system to work together to enable better value in healthcare delivery.

Dental Health Services Victoria (DHSV) is the lead public oral health agency in Victoria. We developed and implemented a VBHC model of care and commenced rollout at the Royal Dental Hospital of Melbourne (RDHM) in late 2018.

Public dental care in Australia is funded via a mix of state and Commonwealth funding, in addition to individual co-payments in many instances. Like all providers of public dental care in Australia, we operate within a fee-for-service model which rewards activity and hence drives the volume of services provided.

The imperative to implement VBHC at DHSV emerged from the need to improve health outcomes that matter to patients, particularly for people accessing public dental care as they tend to (4, 5):

- have more disease and fewer teeth than the general population;
- be less likely to access services than the general population;
- have to wait on average a year for routine care with no recall arrangements; and
- receive care that is not always focused on achieving better health outcomes.

Moving toward a VBHC model of care was a significant change for DHSV, as it called for fundamental reform of the way in which we operated, given our fee-for-service model. This transformation necessitated an organisation-wide cultural shift, requiring significant clinical leadership for our people to embark on a journey of discovering and deepening our shared values, purpose and practices within the organisation.

This Perspectives Brief maps the experience of change from the perspective of our organisational leaders on our journey to VBHC.

Our theory of change

As health interventions typically impact health and system indicators over long periods of time, back-casting was used to identify intended long-term impacts of a VBHC model of care, and then working backwards to identify the actions required to achieve our desired outcomes. These outcomes were mapped in an outcomes-hierarchy across short, medium- and long-term time frames. We tested the assumptions of the outcome's hierarchy through our initial and ongoing evaluation. Our initial evaluation was finalised in August 2019 and focused on reporting short term outcomes and testing assumptions of the theory of change (Figure 1).

Figure 1: Dental Health Service Victoria Value-Based Healthcare Model of Care Theory of Change.

In designing our program logic, our core assumption of our VBHC program was: *Inequities in oral health outcomes of care for the Australian population are driven by systems that are not responsive to consumers. To overcome inequities in access to care and improve the outcomes of oral health care for people who are disproportionately impacted by poor health, we need to deliver care which meaningfully improves the outcomes that matter most to individuals, families and communities at an appropriate cost and to fund investment where it delivers the best health outcomes.*

We deconstructed our program assumption to articulate causative linkages between each level of the outcome's hierarchy, outlined at Table 1.

Table 1: Description of change theory for each segment of our outcomes-hierarchy

Access to care

Population	Intervention	Change	Rationale
Disadvantaged populations, defined as populations with high (oral) health treatment needs who are impacted by poor health, are less likely to access care and more likely to experience poor outcomes of care.	Appropriate clinical intake, which aligns patient readiness, time to treatment and care pathways based on patient risk and need.	By treating the right people at the right time in the right way by the right clinician, we are ensuring that care is rationalised according to need, not rationed on a 'first come, first served' basis. More people with higher needs can be proportionally prioritised for care. These people are less likely to experience deterioration in their condition. Outcomes of care are relatively improved for this group.	Inequalities in the utilisation of healthcare and the outcomes of care exist on a social gradient. Access relates to the opportunity for consumers and communities to have their healthcare needs fulfilled, by having contact with health systems and obtaining the desired benefits of healthcare (6). Our VBHC model of care targets population cohorts impacted by the greatest inequalities of access. Program activities were designed to address barriers and challenges to people having their health needs met at a system level. A co-design process with consumers drove the development of activities in line with the lived experiences of consumers accessing public oral healthcare.

Service efficiency and effectiveness

Population	Intervention	Change	Rationale
Clinical teams who provide care, funded by Dental Health Services Victoria.	Workforce development via employment frameworks and safety and quality frameworks reflecting the principles of VBHC.	Drawing upon employment and performance management frameworks, safety and quality frameworks and human resource management frameworks, clinical practice can be harmonised through clinical leadership, decision-making feedback and guidance. Workforce strategies for recruitment, on-boarding, training, leadership, team communication, audit, clinical protocol development, decision-support tools, mentoring and re-developing job descriptions support standardised practice. Wastage is reduced and services operate more effectively.	Variation in delivery of oral health care is widespread and linked to current activity-based funding (4). Unwarranted variation is associated with elevated safety and quality risks, undertreatment of some patient cohorts and overtreatment of others. Understanding patterns of unwarranted variation in care and redirecting resources away from low-value care to areas of higher need will improve the efficiency and quality of care. Workforce engagement via performance monitoring, benchmarking, audit and decision-making tools can align clinical practice and reduce variation. An appropriate workforce composition, scope of practice and skill mix using mid-level providers in a team-based approach can appropriately meet consumers' general needs in most situations, while producing fiscal savings.

Consumer experience

Population	Intervention	Change	Rationale
Consumers (patients and their partners in care, including families and carers) who receive public dental treatment.	Co-designed consumer orientation to the service, supported by culturally appropriate communication tools.	By working with consumers, their families and carers to familiarise them with the service in a culturally appropriate way, consumers develop knowledge, skills and literacy in navigating health systems. This enables expectations to be better met by the service and contributes to positive consumer experiences and perceptions about care, thereby supporting consumer empowerment in care. Care has an overall greater focus on partnering with consumers.	Improved consumer engagement and experience results in better clinical and patient reported outcomes, improved prevention, improved functional status and greater adherence to treatment regimens. Positive consumer engagement through an established minimally disruptive medicine (MDM) process. Engagement is supported by fostering consumers' knowledge about the service their ability to engage in their healthcare journey, their service literacy and empowerment in shared decision making. This approach will help consumers to achieve their desired health outcomes, moderated through clinical input.

Risk factors			
Population	**Intervention**	**Change**	**Rationale**
Consumers (patients and their partners in care, including families and carers) who access or are waiting for public dental services	Universal oral health coaching and goal-setting.	Workforce skills and process design supports the provision of oral health coaching and goal setting as a universal first step to all consumers in their care pathway. Tailored coaching supports consumers to develop skills to improve their oral health behaviours, with regular coach contact. Modifiable risk and protective factors for oral disease can be changed to improve individual self - management.	Driven by an integrated theory of health behavioural change, oral health coaching provides a basis for improved health behaviours, improved self-management and sustainable health outcomes. Short-term mitigation of impacts of disease can be achieved using telephone-administered behavioural prevention and face to face group consultations, tailored to individual needs and delivered in a supportive and interactive environment. This can support more effective management of chronic disease and lead to improved self-management, empowerment and patient and provider satisfaction. Coaches provide education and goal identification for behavioural change. As health attitudes are often socially related and generational, group-based coaching provided to families can support collective behavioural change.

A framework for organisational change

Our journey to VBHC and associated organisational change required us to map our current state and determine how we planned to transition to our desired future state. We identified our 'current state' had been characterised by an activity-based, demand-driven model of primary general dental care. We set out to develop and implement a re-designed model of general oral healthcare within the VBHC framework, whereby primary general dental services were provided in a 'future state' on the basis of oral health needs and measured in accordance with patient outcomes achieved from care.

We conceptualised our process of organisational change in accordance with the recent ecological approach to change management in healthcare organisations by Braithwaite and Braithwaite et al., (7, 8). In Braithwaite's model, healthcare systems are characterised by a complex, adaptive and dynamic state, comprised of multiple interacting agents. Similar to a natural ecosystem, an organisational state of equilibrium is a dynamic point of ecological balance which is sensitive to ecological pressures. System agents are responsive to external and internal pressures and act with varying levels of impact to balance or destabilise a point of equilibrium – thereby enabling, resisting or preventing change to reach a new point of equilibrium.

Throughout our VBHC journey, our thinking evolved beyond conventional and linear approaches to organisational change, whereby initial system 'unfreezing' establishes a basis for change, followed by the tweaking of individual system elements to reach a desired future state where subsequent 're-freezing' occurs (9).

Our ecological approach recognised the complex, dynamic, interlinking and nuanced characteristics of system elements.

Our journey to implementing VBHC required us to consider the key aspects of our desired point of equilibrium and define this in terms of emergent changes to system performance and behaviour. In doing so, we considered the collective influence of system components to destabilise a point of equilibrium. We clustered these elements into overarching themes, which informed the development of our VBHC Framework.

To enact our ecological approach, we drew upon the mutually reinforcing components of Porter and Lee's model of VBHC (10) and further developed and contextualised these components to accurately capture our system elements. We did this via our 'Voice of Consumer' storytelling project and a deep dive into the narratives of consumers' lived experiences, with an emphasis on those who face significant barriers to accessing care and are more likely to be impacted by poorer outcomes of care. We also engaged our clinical staff in an extensive process of journey mapping and deep diving into pain points.

Based on the emergent themes, we grouped system components into two central enablers and nine system components, recognising that these are constantly moving, evolving and interacting. We described these components collectively as our VBHC Framework (Figure 2).

Figure 2: Dental Health Service Victoria Value-Based Healthcare Framework (11)

Our ecological approach to change management within healthcare systems required us to leverage the organisation's environmental circumstances to precipitate change within a complex system while minimising circumstances likely to hinder progress. Change in the context of organisational ecology is always considered to be emergent, as a product of interactions of system components which drive behaviour (7, 8).

Braithwaite's ecological approach to organisational change recognises that change is interpreted idiosyncratically by stakeholders. In addition to top-down drivers of change, ground-up parts of systems such as staff culture, social interactions and behaviours will also drive system pressures toward a new point of equilibrium (12). It was in accordance with this approach that our consumer and workforce engagement and co-design elements were identified as fundamental catalysts of system change and reflected in our VBHC Framework as central enablers (11).

Braithwaite describes attractors for change as: technological advancements in care, scientific evidence, emerging models of care and general professional acceptance, and we considered these within the nine elements of our VBHC Framework.

Change repellents are: top-driven mandates; entrenched bureaucracy; and layering of new policies and procedures over existing and superficial attempts to alter enduring culture and historical practice. We also considered these barriers within our approach to implementation.

Based on Braithwaite's construct of organisational change management in healthcare, we recognised the need to drive acceptance of change among the clinical workforce by harnessing practitioners' decision-making and behaviours which underpin team interactions using a strengths-based approach. Our experience of this approach is subsequently outlined.

Experience of barriers and enablers of change

Throughout implementation, qualitative enquiry was used to identify perceptions of teams about barriers and enablers to organisational change associated with the implementation of the new VBHC model of care.

We undertook a series of interviews with our VBHC program designers, implementation teams, senior leaders and administrators, in addition to focus groups with clinical staff about their experiences of the VBHC model of care implementation and change process. A separate qualitative evaluation process was utilised to understand the impacts of the new VBHC model of care on consumers' experience.

We triangulated emergent themes about barriers and enablers to organisational change throughout the VBHC implementation by focusing on platforms for knowledge transfer, in accordance with Braithwaite's model for implementation facilitators in organisational change (Figure 3).
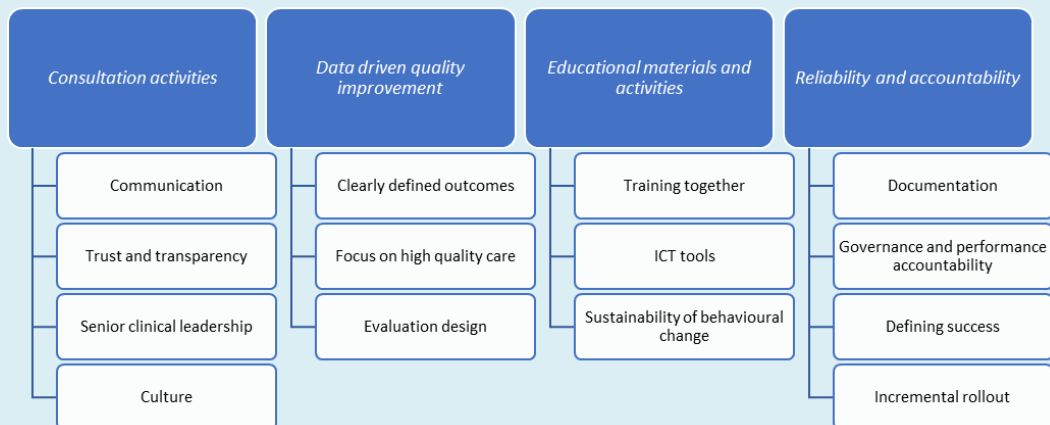
Figure 3 – Perceptions of barriers and enablers to implementation of Value-Based Healthcare Model of Care within Dental Health Service Victoria, based on the knowledge transfer frameworks of Braithwaite et al. (2018) (8) and Greenfield et al. (2014) (13)

1. Consultation activities

Ongoing and clear communication facilitated change. Activities such as team huddles, organisation-wide town hall meetings and regular program management meetings provided certainty and reassurance to clinical teams. Communication throughout planning stages enabled the identification of workplace champions to enact change at a clinical level. Where communication was perceived to be upfront and transparent, senior leaders, implementation teams and clinical staff experienced enhanced trust.

Conversely, infrequent communication caused tension within and between administrators, implementation teams and clinical staff. Communication silos were identified as a hindrance to implementation, especially where reporting or governance structures did not emphasise ongoing communication between decision makers, designers and clinical teams.

Structured engagement and consultative activities supported ongoing communication and feedback between design, implementation and clinical teams. Senior leaders supported implementation and review using a 'Plan, Do, Check, Act' approach. A clinical reference group provided subject matter expertise and endorsement of clinical tools and clinical working groups provided user testing and feedback on new tools and processes.

Workforce culture played a notable role in the change process. Team attitudes of early-adoption, collaboration and commitment to care were perceived to relate to the successful uptake of new practices and processes. Conversely, where team culture was perceived to be change-averse, hierarchical, competitive, activity-driven or overly individualistic, these areas were perceived to be less conducive to the uptake of new activities. Positive team morale was perceived to be linked to readiness for change, and the speed and extent of implementation achieved.

2. Data driven quality improvement

Senior leaders understood the need for clearly defined outcomes to drive implementation. In instances where outcomes were in the process of development during implementation, lower team cohesion and responsiveness was reported by administrators, design teams, clinical staff and senior leaders.

Quality of care was identified as an enabler for team engagement and enhanced implementation. Teams unanimously acknowledged the intention of the model of care to improve the safety, quality and experience of care provided to consumers.

Sequential-simultaneous program design and rollout created barriers to capturing baseline data to inform early evaluation. Data capture tools were in an early process of development throughout initial implementation and had not been externally validated. Evaluative design therefore focused on early indicators and key implementation requirements to inform further rollout and subsequent evaluation planning. Understanding of evaluative practices varied within program design teams and data capture opportunities were not consistently identified within adequate time frames for meaningful evaluation.

3. Educational materials and activities

Collective learning using modalities such as team training and reflective practice were supported as foundations of organisational learning and workforce development. This in turn benefited perceptions of positive team culture and engagement.

Design teams maintained a strong focus on the development of clinical support tools, point of care prompts and decision-making tools. These were perceived to improve consistency of practice amongst teams and provided opportunities for data capture when utilised consistently. However, where paper-based tools were utilised as opposed to electronic capture within a patient information system, clinical users expressed frustration and perceived this form of data capture as inefficient.

The concept of sustaining the outcomes of change though behaviour was understood unanimously. Gaps in behavioural processes for sustaining change such as ongoing audit, revalidation of training, regular performance feedback and setting of performance indicators were identified focus areas to ensure sustainable changes in practice. Senior leaders recognised the compliance-driven nature of clinical teams in safety and quality settings and suggested that similar approaches to framework utilisation could be used to sustain a changed model of care.

4. Reliability and accountability

Process documentation was relevant to the change process. In situations where minimal process documentation occurred, team confusion was noted. Compiling information in a central repository accessible by the workforce was identified as a mechanism to improve communication and standardise new practices. The development of a manual or blueprint housed in an online repository was an identified quality improvement.

While senior leaders reported leveraging current governance systems for overall decision-making, confusion about levels of program governance amongst design and implementation teams was reported as hindering implementation progress. However, where lines of decision-making and reporting were clear, this enabled transparency of performance and accountability for unintended impacts of decisions. Design, implementation and clinical teams expressed uncertainty of expectations of success in instances where metrics and associated performance indicators had not been identified or where distal outcomes could not be reached within the short-term.

An incremental approach to rollout was identified by senior leaders as a useful change enabler. Commencing rollout at a local level while designing for scalability provided a testing ground for many of the implementation tools and assumptions of the model of care. Senior leaders emphasised the need to be realistic about the extent and breadth of implementation within short time frames and the extent to which health outcomes can be captured within short time frames.

Drawing on the experience of organisational leaders on our journey to VBHC, we identified five key learnings.

Learning 1   Organisational change management

The success of any organisational change depends on the people involved. Managing change requires healthcare leaders to work collaboratively with staff to integrate new ideas with existing organisational culture, values and practices. People deal with change in different ways and are often influenced by previous experiences of change. Staff involvement in the formulation, planning and implementation of change initiatives empowers staff and lessens resistance, improves peoples' intrinsic motivation for change and acceptance of change.

On our journey to VBHC, we reflected the need for ongoing involvement of staff and consumers in the change process by embedding a co-design principle with the central enablers of our VBHC Framework. Our 'Voice of Consumer' project sought to engage consumers, who encountered significant barriers to accessing care and were more likely to be impacted by poor outcomes of care, through a deep dive process.

Learning 2   Sensitively planned change informs a positive psychosocial environment

Providing psychological safety is critical to successful change management and reducing unintended impacts arising from new initiatives. Bringing about organisational change requires persistence as it involves changing longstanding practices and established norms. Carefully designed change processes which are transparent, ongoing, evolving and incremental should form part of a sustained implementation process.

Identifying stages in change implementation and harnessing environmental triggers within the organisation are necessary to unbalance a current point of equilibrium and

drive progress toward a future desired state. Leading staff through a process of equilibrium upset entails complexity and uncertainty and must be sensitively planned and executed in collaboration with staff. This requires reinforcing the organisational values at multiple time points and ongoing communication on 'above and below the line' behaviours. Opportunities for people to provide input, engage in dialogue and follow-up on items of concern should form part of a coordinated effort to create a positive psychosocial environment and make the outcomes of the change process sustainable.

Our journey to VBHC required us to consider how our organisational values aligned with VBHC principles and messaging. We simultaneously embarked on staff surveys of organisational culture, undertook storytelling sessions with teams and identified key themes to drive cultural improvements within the organisation. Strategies to support team-based practice, patient-centred care, intelligent kindness and commitment to service are currently underway, driven by identified staff desires. As a key learning, we believe a strengths-based approach to changing organisational culture is vital for the implementation of VBHC within health service organisations.

Learning 3
Timely dissemination of change initiatives should occur in accordance with a clear communication strategy

Change is a social process. Change readiness and buy-in requires an ongoing, robust communication strategy delivered through the right mediums. Transparent, accountable, relevant and timely communication concerning 'why the change is required', 'what is going to change', 'what are the impacts of change' and 'what are the benefits and outcomes associated with change' enables people to proactively engage with the change process and prepare. Any process that hinders the exchange of information should be addressed at the outset.

Time must be devoted to communicating and explaining how new systems, processes, practices and behaviours will allow staff to better enact organisational values and deliver high value care.

Concise and consistent messages delivered using simple language reduces uncertainty and builds common understanding of the outcomes of change.

Our journey to VBHC reinforced the benefits of concerted and timely communication with the workforce and consumers. We also experienced unintended impacts in situations where communication was fragmented or intermittent. We addressed this by reflecting the principle of workforce and consumer engagement as a central enabler in our VBHC Framework. The need to adapt messages and communication modalities for audiences and to co-design our communication strategies was an important learning.

Learning 4

The change processes can be streamlined through a clear governance structure

The implementation of a new model of care, especially an innovative model such as VBHC, is not straightforward, nor is it a linear process. It has several interdependencies requiring cohesive and collaborative action across multiple areas within a health service organisation. Change activities must be clearly designed, adequately resourced and governed at a centralised level. Streamlining the change processes, establishing essential systems, communicating and adhering to a change management framework which appropriately reflects the complex and dynamic nature of health service organisations must be reflected in the governance approach of leadership.

On our journey to VBHC, understanding the complexities of our operational ecosystem though journey mapping with consumers and staff underpinned thematic discovery of our system elements and contextualisation of Porter and Lee's early model of VBHC. As a key learning, we believe an environmental scan is necessary to commence organisational change and is particularly valuable where implementing a new approach to VBHC, by enabling contextual system complexities to be reconciled with established models of VBHC.

Learning 5

Change is an ecology

Health systems are complex and dynamic. Our journey to VBHC has required us to fundamentally rethink and redesign the way in which we deliver and evaluate care. Our journey is far from over. We recognise that reshaping the foundations by which we define and measure 'success' in healthcare will require time, sustained action and a maturing of our model as it is streamlined and incrementally rolled out to other parts of our organisation.

While VBHC theory is not new, we recognise that our journey to VBHC challenges conventional thinking of healthcare organisations, funders and governments in program design, funding and delivery of care. Our change process, based on an ecological approach to organisational change, requires us to draw upon environmental triggers to destabilise a point of equilibrium and tip it toward a new direction.

Our inputs into the health service ecosystem need to be sustained to hold us at our new point of equilibrium. We are not there yet. To effect this change, a critical mass of our health service leaders, design and clinical teams need to align their daily practices, behaviours, skills, knowledge and decision-making with our VBHC principles. We have many 'strings to our bow' when it comes to influencing workforce capability, capacity and culture and there is more work to be done in this space.

Other environmental determinants of the health system such as state and Commonwealth policy and funding need to support VBHC in order to truly embed and sustain the benefits of VBHC within public healthcare in the long term. Our dissemination of new knowledge and advocacy for the healthcare and financial

advantages of VBHC are also important to influence change within the broader funding and policy landscape.

As a key learning, we believe the ecological approach to change management is the right approach to accurately capture the complex and dynamic nature of health service organisations, healthcare systems and the public health landscape generally and to consider how these complexities can be harnessed to work toward a new era of VBHC.

Future considerations

Our journey has helped to evolve our thinking about VBHC and how healthcare systems can better address peoples' needs. The potential for health system transformation through application of a VBHC framework is significant, but an implementation gap arises from current systems that are geared toward disease-driven care, provided in high volumes within current infrastructure limitations and data system silos. While organisational change is important, sustained implementation will ultimately depend on the appetite for reform to these system determinants at a state and national level.

An important advancement of VBHC theory is the potential to address determinants of disease and population health through an inequity lens. The public dental sector is providing useful testing grounds because access to public dental care is not universal but underpinned by a position on social equity. Though our initial program design work, we identified the imperative of a VBHC system to eliminate overtreatment and focus on the aspects of care material to improving outcomes for populations in need.

The population component of a VBHC approach is therefore a position on health inequity. Health inequities arise from complex interactions between individuals, their environment and the health system. As health is socially determined, further thinking about potential population impacts of VBHC should be accompanied by dialogue about social injustice and its role in access to healthcare and the outcomes of care.

A journey to leverage further change will need to extend beyond organisational approaches and focus on sustaining change across systems. An ecological approach to change management would similarly apply to a broad scale change process.

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