PRESCRIBING PAYMENTS FOR VALUE-BASED HEALTH CARE

By: Alan Ong, Prasanna Santhanam, Mariam Jaafar, Benedict Keneally, and Ben Horner

Value-based health care (VBHC) is high on the agenda for many health care payers, providers, and policymakers around the world. The underlying idea is that health systems should seek to maximize the health outcomes they achieve for each dollar that is spent. This is imperative if we are to ensure sustainable and equitable use of health care resources in order to deliver better outcomes for patients, payers, and the health system as a whole. The idea of VBHC has proven to be a powerful paradigm shift for health systems, and has driven major innovations in care delivery across the globe.

Delivering VBHC requires a number of key pillars—policies and regulations to support delivery, informatics to enable a data-driven approach, care delivery models that enable better access to continuously improving care, payments that reimburse for value rather than volume, and the tools to analyze, understand, and inform delivery.

This Perspective focuses on the element of payment reform as an essential pillar of VBHC transformation.

Payment systems are a key enabler of VBHC, and while not sufficient by themselves to deliver an end-to-end transformation, they nevertheless form a vital foundation to the holistic transition towards a value-based ecosystem. It builds on previous work that Boston Consulting Group (BCG) has completed on VBHC, particularly work BCG has done to review existing value-based payment models outlined in its publication Paying for Value in Health Care, and efforts to identify the key features that lead to success for value-based payment initiatives.

A wide variety of payment models have been applied in support of VBHC—no one payment model is suitable for all circumstances. BCG has worked with clients around the world to select, design, and implement fit-for-purpose payment models to support VBHC initiatives. These projects include a recent initiative to explore how payment reform can deliver on the goals of VBHC in Singapore, working with a local health care cluster to deliver positive reform in the area of palliative care.

UNDERSTANDING SINGAPORE'S HEALTH CARE SYSTEM

The Singapore Government announced a major transformation of its health care system in 2022 through the HealthierSG initiative. The overarching objective is to shift the focus of health care systems from treatment to prevention, helping Singaporeans stay healthy for longer, and thereby achieving improved health care outcomes at lower overall cost.

Singapore's public health care system operates across three health care clusters, with each serving a population of approximately 1.8 million people. Each cluster owns and directly operates one or more tertiary hospitals with a full breadth of specialist capabilities, a network of primary carecenters, as well as a small number of community hospitals that are used for step-down care.

In addition, the clusters have various programs to collaborate with GPs as well as non-profit organizations in their region which provide intermediate and long-term care, such as nursing homes or independent community hospitals.

Most of the funding for the clusters comes from the government, and the government health budget has grown rapidly from US$3 billion in 2010 to US$8.5 billion in 2019. Total government health budget for 2023 is approximately US$13 billion and, on current trends, is forecast to reach US$20 billion by 2030. A significant impetus for HealthierSG is the need to moderate the increase in health expenditures to a more sustainable level.

Fundamental to moving HealthierSG forward will be shifts in financing systems. First, the funding that public health care clusters receive will shift from being based on workload, to being based on capitation. Under the capitation model, clusters will receive a fixed amount of money for each member of the eligible population that they cover, regardless of the patient-specific workload.

Second, the clusters will be expected to shift from a focus on service delivery, to a focus on managing the health of the region under their care. Among other implications, this shift will include the role of disbursing government health care subsidies to qualifying entities within the regions, including clinics and tertiary health care providers.

The shift in traditional cluster financing to a capitation model, alongside the expansion in role to include disbursement of subsidies, creates a unique opportunity for clusters to design and implement new payment models that are customized to their specific circumstances. In doing so, they not only have an opportunity to better serve patients and support a more sustainable health care ecosystem, but embrace a payment model that fits their own long-term needs.

Singapore's palliative care provision is one area of particular interest for the Singapore Government, and one which offers a fascinating case study in how this evolving payment model can provide an improved health care ecosystem for all participants.

The Singapore Government has prioritized quality improvements and utilization of palliative care services. Historically, most palliative care provision in Singapore has been delivered by non-profit organizations (NPOs) operating in this space. NPOs are largely funded through a combination of government subsidy, charity donations, insurance, and patient fees. These organizations typically have linkages with an acute public hospital, and frequent exchanges and patient transfers occur between public hospitals and palliative care institutions.

The level of Government subsidy is provided on the basis of care setting, severity of a patient's condition, and length of stay, with a fixed amount being paid per day or per month for each patient of a particular severity in a particular setting. Due to historical industry norms, home care is free for patients.With the new window of opportunity provided by a shift to capitation, and with the overarching ambition to improve palliative care for patients and providers, BCG partnered with a public health care cluster in Singapore to design a new, improved payment model for palliative care. Key stakeholders included a public tertiary hospital with over 1,500 beds, with specialty care provision which incorporate palliative care, and an NPO hospice with 40 beds, offering in-patient hospice care, home-based care, and day care. Working with the cluster provided invaluable insight into VBHC reform in Singapore, with wider implications for global health care operators.

THREE STEPS TO THE PAYMENT PRESCRIPTION

Developing and embedding a new value-based payment model is a core enabler of VBHC. The process of developing this payment model needs to be closely coupled with the development of the desired end-to-end patient care model.

This means that there are three fundamental steps to designing a new payment model to drive VBHC:

1. Understanding the current state of the system
2. Designing the desired future state
3. Laying out the implementation pathway

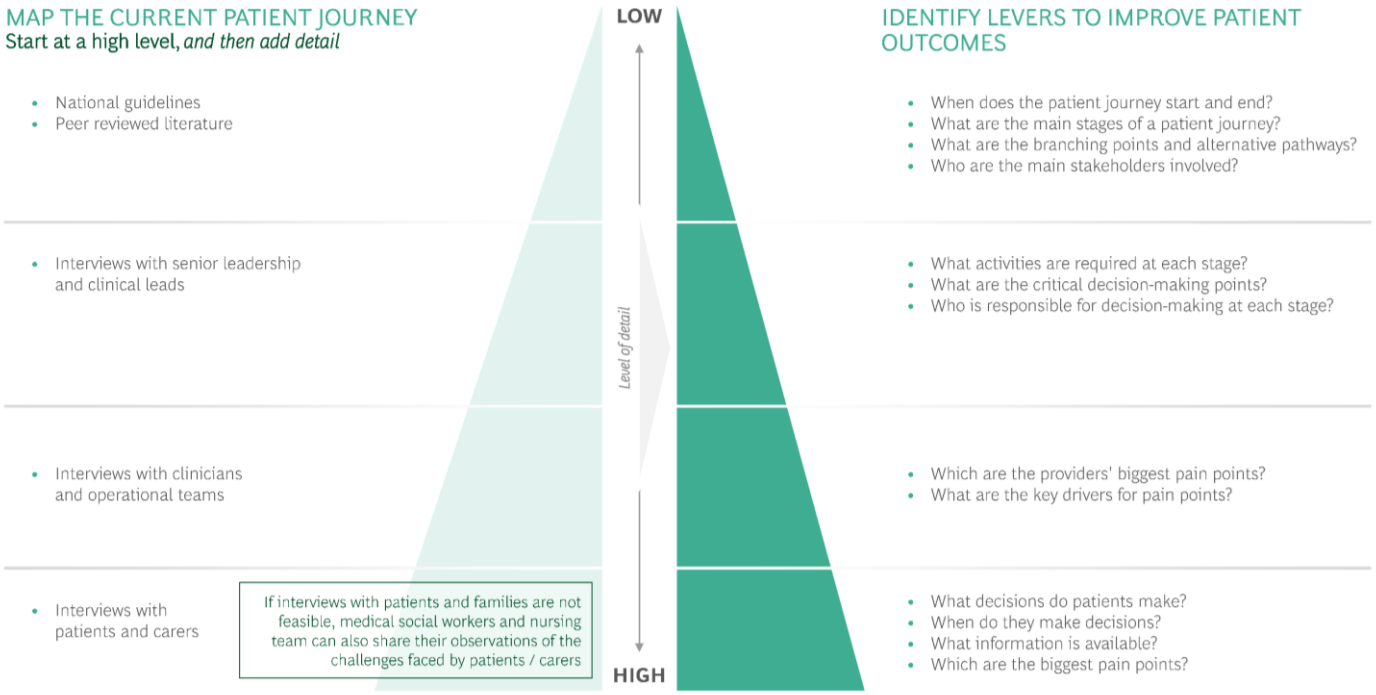
UNDERSTANDING THE CURRENT STATE OF THE SYSTEM

The starting point for any VBHC initiative is to develop a deep understanding of the current system. Key issues to understand are (1) current outcomes and patient journeys, (2) possible changes to the patient journey to improve outcomes and/or reduce costs, (3) key cost drivers and finance mix to inform the prioritization of changes to the payment model.

CURRENT OUTCOMES AND PATIENT JOURNEYS

It is vital to map the current patient journey and its respective outcomes. This should be done through interviews with leadership, clinicians, operating teams, patients, and caregivers, accompanied by a review of applicable national and institutional guidelines, as well as existing outcome metrics for institutions. [Exhibit 1.] The objective here is to get a clear and comprehensive picture of the performance of the system.

Exhibit 1 - Patient journey mapped to identify potential levers to improve outcomes



POSSIBLE CHANGES TO PATIENT JOURNEY

Comparing current state against external benchmarks and exemplars will allow decision makers to determine possible changes to the patient journey which can improve outcomes and reduce costs. Interviews also often provide valuable suggestions that provide insight on improvements to patient journeys, which again can be validated against external benchmarks.
Optimization of the patient journey should also consider the patient perspective, and incorporate respect for patient decision making, information access, and pain points.

In our work with the cluster in Singapore, this process led to the identification of three specific target improvements as priority areas of intervention:

- Speeding up referrals and transfers to palliative care
- Increasing the proportion of patients receiving care at home, rather than through in-patient palliative care
- Reducing avoidable readmissions from hospices to tertiary hospitals

In the wider health care context, other common improvements to patient journeys could include reducing unnecessary steps in patient journeys, such as additional unnecessary referrals, admissions, or clinic visits. It could also include greater standardization of patient care pathways, as well as more appropriate use of high-cost interventions such as intensive care unit (ICU) care.

KEY COST DRIVERS AND FINANCING MIX

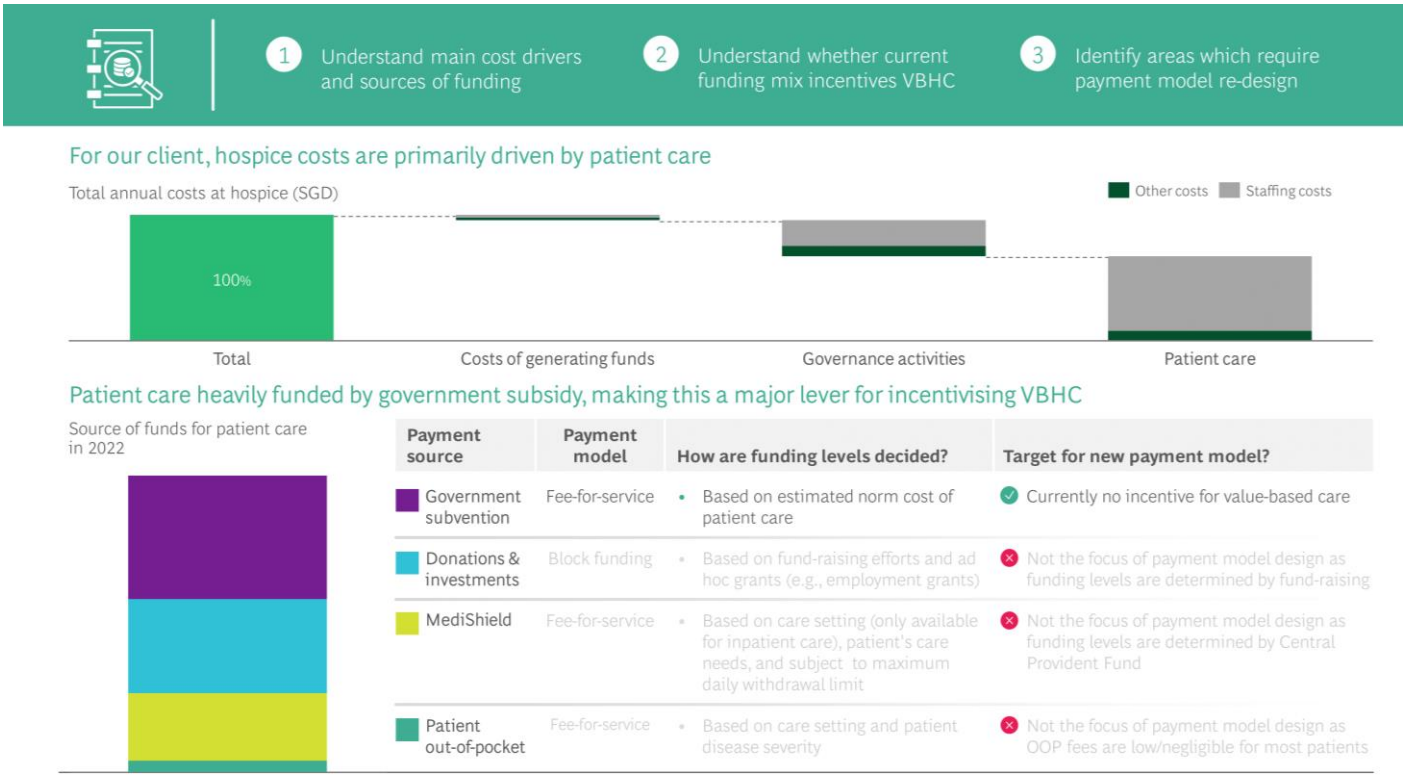
Mapping out key cost drivers and financing sources is essential to determine what payment sources need to be incorporated into payment model redesign, and which provide the appropriate starting point(s) to drive the desired changes to the care model. [Exhibit 2.]

Many health care institutions receive payments from a variety of sources, creating a complex reimbursement landscape. Therefore, it is important to understand which funding sources exist, their relative importance, and how amenable respective stakeholders are to payment model changes.

In our work with the Singapore cluster, we found that government subsidies accounted for the greatest share of patient funding for palliative care. This allowed us to recognize that shifts to the subsidy payment model would have the most significant impact in driving towards value-based care, and should be a priority for the transition.

However, it would also be important to have subsequent adjustments to patient fees, as well as adjustments to insurance coverage and charity funding, in order to facilitate the desired outcomes.

Exhibit 2 – Prioritise funding sources that require new payment method design



DESIGNING A DESIRED FUTURE STATE

Informed by understanding of the current system, the next step is to design a desired state for the future payment model. This requires three central steps:

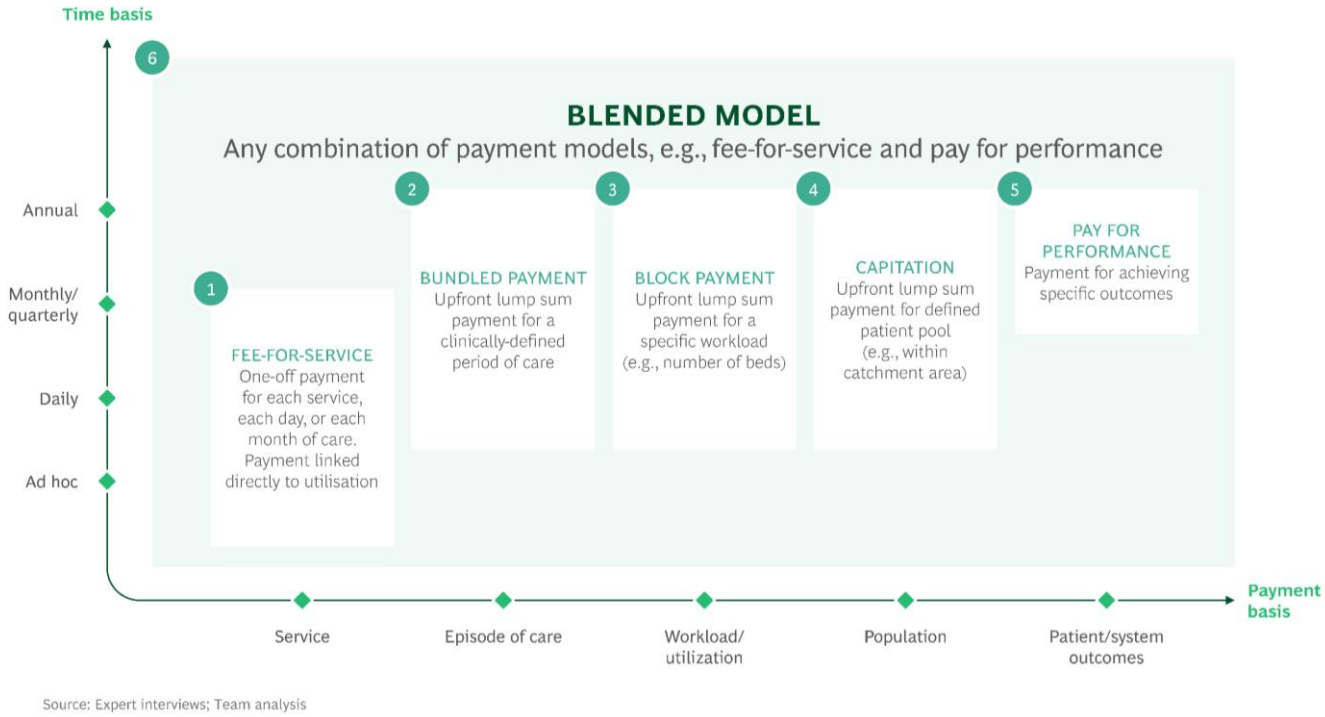
1. Developing a range of possible future state payment models to support
2. Assessing the pros and cons in light of outcomes and levers
3. Identifying other required changes to clinical and operational patient journeys, and KPIs

DEVELOPING A RANGE OF POSSIBLE FUTURE STATE PAYMENT MODELS TO SUPPORT

It is important to consider the broad range of possible payment models before narrowing down on preferred options.

The solution space of possible payment models can be mapped using two axes—time-basis, and payment-basis. [Exhibit 3.]

Exhibit 3 – Variety of high-level payment models could theoretically be used – individually or in combination – to deliver care



Source: Expert interviews; Team analysis

There is no one-size-fits-all payment model—different models suit different circumstances. [Exhibit 4.] In undertaking this research, BCG assessed a number of different payment models from markets across the world, including those in use in Sweden, Netherlands, the United States, and other relevant markets.

Exhibit 4 – Variety of high-level payment models could be used to deliver care

Payment models	When should this model be used?	What are the advantages?	What are the disadvantages?
1 Fee-for-service/ Per diem payments	• To collect initial data on unit costs of care, in order to support further payment model design • To ensure that clinicians do not skimp on volume / quality of care	• Provides financial stability to provider • Easy to implement—most providers are likely to be familiar with fee-for-service payment model	• May lead to overtreatment • No incentive to collaborate across teams • Risk of negative impact on patient unless outcomes measurement is part of payment structure
2 Bundled payment	• To encourage cost containment and better care outcomes within a defined clinical episode that has clear start and end points	• Incentivises more cost-efficient use of clinical resources • Foster collaboration across clinical teams to maximize patient outcomes	• Difficult to define episode of care • Risk of negative impact on patient unless outcomes measurement is part of payment structure
3 Block funding 4 Capitation	• To encourage cost containment and better care outcomes across a longer time period or across a broader patient group, e.g., to manage chronic disease costs for elderly population	• Incentivises more cost-efficient use of clinical resources • Foster collaboration across clinical teams to maximize patient outcomes	• Risk of financial instability / lack of adequate payment for patients with complex medical needs • Risk of negative impact on patient unless outcomes measurement is part of payment structure
5 Pay for performance	• To incentivise greater focus on patient outcomes	• Directly incentivises improvements in care and quality outcomes	• Bonus must be well defined to limit incentive to "game" the system • Difficult to align on outcomes to track and measure

Source: Expert interviews; British Medical Association; Five Ways to Pay; OECD Health Policy Studies; Team analysis

ASSESSING THE PROS AND CONS IN LIGHT OF OUTCOMES AND LEVERS

Assessing the pros and cons of a given payment model should be guided by three broad questions:

- Does the payment model incentivize the desired outcomes?
- What are the challenges and risks involved in the implementation of the payment model?
- How does the payment model impact equity and fairness in the delivery of the particular health service?

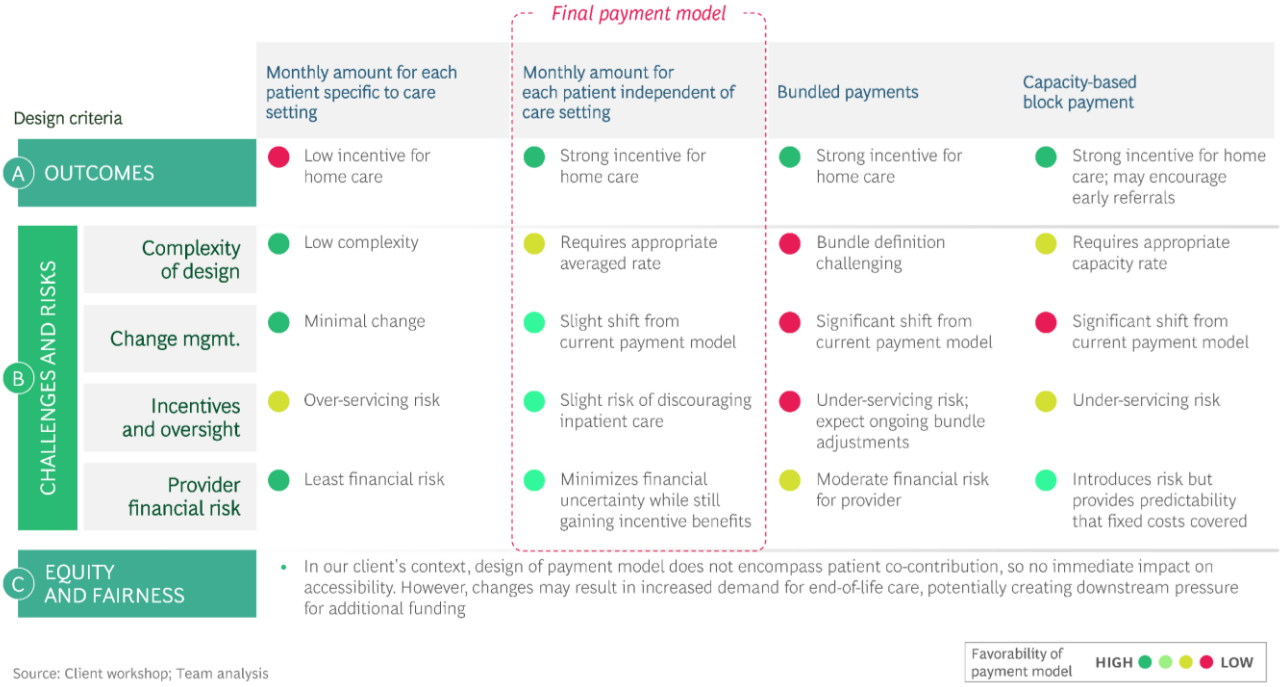
In the case of our work with the cluster, increasing use of home care was a key objective, and it was important that the payment model chosen encouraged this outcome. This led to the conclusion that payments should shift away from being based on the care setting, which results in hospices losing revenue for each patient moved to care at home.

Three possible alternatives were considered:

1. A monthly amount for each patient independent of care setting.
2. Bundled payments for each patient that would cover the entire care cycle up till the end of life.
3. Capacity-based block funding for the palliative care provider.

The options of bundled payments or capacity-based block payments represented too significant a transition from the existing model, with notable risks around complexity of design, change management, and oversight demands. The option of a monthly amount that was independent of care setting was deemed to provide a strong incentive for home care, while being manageable in terms of implementation risks and challenges. [Exhibit 5.]

Exhibit 5 – Example | Based on design criteria, most well-balanced payment model was a monthly amount independent of care setting



Source: Client workshop; Team analysis

IDENTIFYING OTHER REQUIRED CHANGES TO CLINICAL AND OPERATIONAL PATIENT JOURNEYS, AND KPIs

Changes to the payment model alone will not drive improved patient outcomes—clinical and operational adjustments will also need to be made. It is also necessary to consider how performance indicators should adapt to support the desired patient outcomes, and which, if any, should be linked to financial incentives. There are numerous changes to clinical and operational processes which could be considered. They include establishing or refining clinical care pathways, as well as expansion or reallocation of provider capacity. Changes to roles or team models for clinical staff can also be considered, alongside broader adjustments to how services are delivered—for example leveraging telehealth solutions. The use of clinical decision support systems can be explored to improve consistency of clinical decision making and to embed new care models, as well as specific processes to engage patients and caregivers to help them understand the clinical journey. This can be backed by embedding review of outcomes and continuous improvement into the operating rhythm of the institution. Relevant performance metrics and incentives are a crucial part of making a new care model work. These need to be adjusted to align with the desired outcomes,

and to balance against the risk of unintended consequences arising from the new payment model.

In our work with the cluster in Singapore, we were focused on the objective of driving home care, encouraging earlier referrals, and reducing readmissions. Performance metrics were set to enable earlier access to care, and the right siting of care. Incentives for home care were primarily driven by the new payment model. However, it was also vitally important to ensure the quality of care was not compromised through these changes. In order to keep this focus, quality of care was set as a key performance metric, and the payment of any performance-related bonus was made contingent on maintaining quality of care at a minimum baseline set no lower than existing care standards. [Exhibit 6.]

Performance-based bonuses were limited to 5%–10% of the total payment amount, limiting any incentive to game the system for greater financial reward, while still being meaningful enough to incentivize behavior change. Rate of readmission and time for transport from tertiary care were also linked to performance-based payments, and used as levers to drive cost-efficiency, but contingent on the provider maintaining the prescribed quality of care baseline.

Exhibit 6 – Example | Performance-based bonus was limited to 5-10% of total payment amount to limit incentive to "game" the system

Payment amount

Metrics linked to performance-based bonus identified based on:
- Whether **performance level is determined by provider** or by external factors
- Whether there is **room for improvement** compared to existing baseline

Objective	Performance metrics	Baseline	Target	Will metric be linked to performance-based bonus?
QUALITY OF CARE	• Degree of symptom control at end of life	Symptoms controlled for x% of patients	Symptoms controlled for x% of patients	≈ Not linked to incentive; however, performance-based bonus is contingent on provider maintaining the current baseline
EARLIER ACCESS TO CARE	• Time for transfer from tertiary care to inpatient hospice care	X working days	X working days	✓ Yes, potential lever to drive cost efficiency gains
	• Time from referral to home care to first contact	Within x days of referral	Within x days of referral	✗ No, current baseline is already high relative to other local hospices
	• Percentage of non-cancer patients referred to palliative care	X% of hospice patients are non-cancer patients	Increase by x% a year for 3 years	✗ No, mainly affected by referrals from tertiary hospital and not linked to hospice performance
RIGHT SITING OF CARE	• Percentage of patients who die in preferred place of death	X%	X%	✗ No, only a small % of patients unable to die in preferred place of death, often due to caregiving challenges
	• Rate of readmissions from palliative care to tertiary hospital	X% readmission rate	X% reduction from current rate	✓ Yes, potential lever to drive cost efficiency gains

Source: Team analysis

LAYING OUT THE IMPLEMENTATION PATHWAY

Having established the desired future state for the health care payment model, the next step is to lay out a clear implementation pathway. This should be considered not only in reference to the implementation of the payment model, but as a broader transformation to the care model of which the payment model is one core component. That must include three key steps:

1. Framing the care model transformation
2. Integrating and aligning with all stakeholders
3. Link to care model change

FRAMING THE CARE MODEL TRANSFORMATION

Care model transformation is complex, and will require alignment across clinical, operational, technology, data, analytics, finance and others to ensure an integrated and effective program of activity.

Implementation of a new payment model should start with a shadow budget for a period of several months, allowing the provider to understand how it will impact their finances, and providing flexibility to adjust operations accordingly. This pilot period offers a low-risk trial of the changing payment model. Outcomes measurement should be put in place, using a combination of existing metrics already captured in clinical practice, and new measures that are needed for the new set of KPIs. In terms of patient groups, implementation should start with the simpler and more homogenous groups before moving on to more complex and heterogenous group.

INTEGRATING AND ALIGNING WITH ALL STAKEHOLDERS

Payment mechanisms are deeply entwined with service provision and the ultimate quality of care. This means implementation of payment model changes needs to be carefully considered and approached in a step-by-step model that reflects the critical and complex nature of health care provision. A shadow budget pilot period provides a step-by-step opportunity to introduce changes across a range of stakeholders in a managed way.

LINK TO CARE MODEL CHANGE

Payment models should inherently be linked to improvements to the overarching care model. In the case of the Singapore health care cluster, payment model change was just one of a set of integrated activities planned to drive care model change.

We worked closely to design a fit-for-purpose payment model, and one which will be piloted as a shadow budget for a six-month period. This allows us to track how the new funding model integrates, its impact on provider and payers.

During this period, the palliative care provider will continue to receive payments through the previous payment model, ensuring no disruption to operations.

THE PATH FORWARD FOR VALUE-BASED CARE

Payers and providers across the world are eagerly pursuing value-based care initiatives, with payment model redesign often a core facet of this transformation.

It is vital that in pursuing this aim, providers follow a clear process for the development and implementation of a new payment model. This model must be carefully chosen to fit the unique nuances of the setting, service, and existing payment landscape, to ensure the model chosen meets its objectives with the best chance of success.

It is equally critical to recognize that changes to a payment model do not act in isolation. A broader set of clinical and operational changes will be needed to complement, and ultimately deliver, on this ambition. This can be empowered through deepening use of data and analytics and enhanced governance mechanisms, working together to achieve the goal of optimized value in health care.

Our experience demonstrates that with the correct strategy in place, payment model reform can provide a powerful platform to improve the health care ecosystem for payers, providers, and patients, and deliver more cost-effective health care with improved outcomes for all.

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