DISRUPTING THE HEALTHCARE DELIVERY SYSTEM: A QUALITATIVE STUDY ON IMPLEMENTING VALUE-BASED HEALTHCARE IN THAILAND

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I dedicate this study to those committed to improving the healthcare industry in Thailand: I hope this study can make a small contribution to creating a more accessible and fair healthcare system for us all.

Kuhn Sucharitakul

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ABSTRACT

The healthcare industry in Thailand is entering a watershed between the familiarity of traditional care providers and the innovative models that can disrupt the landscape creating more value for stakeholders. Public healthcare providers have been struggling to provide timely access to quality care under Thailand's Universal Health Coverage policy, and how the country will fund healthcare schemes amid the onset of a super-aged society remains unclear. Private healthcare providers have directed their services to the growing medical tourism market, which left the middle-class to choose between the almost prohibitively expensive fees-for-service at private hospitals and the excruciatingly long waits at public healthcare facilities. To guarantee an equitable access to effective care for all Thai citizens, policymakers must ensure that the market for private players remains open to serve the domestic market in fair and flexible healthcare delivery models. The concept of Value-Based Health Care (VBHC) was proposed to address both low quality outcomes and its rising cost in health systems. However, the evidence of its implementation in low- and middle-income countries such as Thailand has been limited.

The present study examined whether VBHC can be implemented in Thailand by identifying the perceived possibilities of adopting VBHC models and current public policies that possibly hinder an implementation of VBHC from the perspective of providers in the private healthcare sector of Thailand. Qualitative study was conducted by using documentary reviews, non-participant observations, and in-depth interviews of domestic private providers who were launching a new hospital chain and claimed that they adopted the VBHC model. Qualitative data was analyzed by thematic content analysis. The lesson learnt from this study can further advance the decision-making process for policymakers and healthcare leaders towards the effective implementation of VBHC in Thailand.

KEY WORDS: Value-Based Healthcare/ Healthcare in Thailand

51 pages

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CHAPTER I
INTRODUCTION

Globally, the healthcare industry is one of the fastest growing essential sectors as modern developments such as technological advancements and effective medicines increase life spans, and societies around the world continue to age. With older and larger populations, countries are faced with additional challenges of financing, managing, and operating health provision services. As opportunities emerge, new players are flocking to an industry which until recently had been traditionally characterized as a form of social service. The commercialization of healthcare has undoubtedly brought with it many lifesaving benefits, but has also exposed the industry to new questions of ethics and morality that come with corporate priorities. Healthcare is now of course just another business.

Research suggests that in 2018, healthcare spending in Thailand reaches almost US$18.8bn (Healthcare IT news, 2019). However, government efforts to provide universal healthcare has led to sharp increases in patient numbers at local hospitals, driving those with means for treatment at private establishments, while revealing fault lines in the country's own stark wealth disparity. Furthermore, Thailand has become a burgeoning hub for medical tourism in the region and beyond. The opportunities that these developments present, have made the commercialization of healthcare is a key driver of the country's economy. And at the crux of these new developments, is the question of how private healthcare providers can deliver a more ethical and value-driven business that ensures the patients they serve do not come second to the shareholders to whom they report. This paper is an exploration into some of the complex issues that surround the concept and implementation of value-based healthcare in Thailand. With a focus on the private hospital sector, it seeks to answer whether Thailand's existing health landscape is ready to accept an alternative model, namely value-based healthcare; and what the key structural and behavioral challenges are to its implementation. In a country such as Thailand, where the the bureaucratic system of the government can be

slow at time in making any new swift decision, the signal of change often comes from the lead of the private sector. The study hopes that the lesson learnt from this paper, focusing on the private initiative, can enlightened the mind of stakeholders, regulators, and policy makers to understand and follow soon on suggested policies which create feasibility and reduce barriers on the path to value-driven care.

1.1 The Healthcare Landscape in Thailand

Thailand's modern healthcare system has developed in fits and starts, and grown organically according to the interests of successive governments. It borrows features from various healthcare models around the world, and lacks a solid master plan. There has been little demonstrated political will to tackle systemic issues with regards to policy, regulation, and access.

Healthcare in Thailand is regulated and overseen by the Ministry of Public Health which oversees 927 government hospitals, and 9,768 government health centers across the country (Otage, 2019). In 2002, Thailand introduced universal coverage reforms, one of only a handful of lower-middle income countries to do so, with a comprehensive insurance scheme originally known as the "30-baht project," in line with the small co-payment charged for local-level treatment. However, an ageing demographic and overstretched public hospitals are two factors that are causing severe bottlenecks in the system.

These bottlenecks are compounded by a shortage of medical professionals that reduces the ratio of doctor to population to 1:2,000. In order to deal responsibly with the country's aging society and accompanying chronic diseases, it will need to increase its capacity to 1: 1,200. This means trained doctors must be produced and entering the system at 3,452 doctors per year. Currently, Thailand can only train 3,000 doctors per year (Bangkok Post, March 1st, 2018). It will probably take almost five years, until Thailand can fulfill the needs for the prospect ratio. This is not to mention how will Thailand prepare for being the medical tourist hub and how can the resources of doctors play a balance between national and international patients in addition to this shortage problem.

Private hospitals help by complementing the system, especially in Bangkok and large urban areas, and Thailand is among the world's leading medical tourism destinations with some 3.5 million medical tourists each year, according to official estimates.

The Bangkok Post (2018), a leading national daily, reports that Thailand's 1,400 hospitals and medical facilities represent the fourth highest number of US-accredited hospitals in the world. Of these, Bangkok Dusit Medical Services is the largest private hospital group in Thailand with ownership of most major hospitals, including: Bangkok Hospital; Samitivej Hospital; BNH Hospital; Phyathai Hospital; Paolo Hospital and; Bumrungrad International Hospital.

As these private healthcare providers direct their attention and services to attract the growing medical tourism market, Thailand's middle-class-which represents 49 million people out of its total 70 million populations (Bangkok Post, 2018) -are faced to choose between excruciatingly long waits at inefficient public healthcare providers, or the almost prohibitively expensive fees-for-service, private hospitals. Additionally, in Thailand, the healthcare industry is facing increasing difficulties in attracting and retaining a skilled workforce in healthcare, which is a major contributing factor to low quality and efficiency.

If those in the country's public health sector are serious about providing fair and full care for Thai citizens, they must ensure that the market for private players remains open, fair, and flexible to new models and new systems. And private players should reconsider models of care delivery that provide better value to their patients, while also reducing cost-inefficiencies in their own operations.

1.2 Rationale of the Thesis: Problem Statement

Thailand's 21st century healthcare landscape is ripe for disruption, and in need for transformation. The existing traditional care models are unsustainable as is evident by rising healthcare costs, inefficiencies in both operations and costs, by the low quality of value delivered, and are leading Thailand in the direction of the US's cutthroat insurance policy competition. In Thailand, the need for transformative structural change, visionary policy, alternative business models, innovative care delivery, and

personalization of treatment is clear, and the discussions that ensue have become driving force in reviewing the healthcare industry.

In order to develop a more progressive healthcare landscape in Thailand, healthcare organizations must continually acquire new ideas, skills, knowledge, and systems for information management. Until now, private healthcare organizations which are better placed to procure and develop the skills and systems above, should invest both time and effort in exploring value-based approaches that prioritize the outcomes for the patients, not only for the shareholders: Profit must be balanced with value-driven goals, and technology will certainly be at the forefront of this disruption.

1.3 Objectives, Scope, and Expectation of the Study

This study has three main objectives: The first is to conceptually explore the term "value-based healthcare" defining what is considered "value" and to whom; and to investigate how systems thinking is fully integrated into the practice of value-based healthcare. The second objective is to conduct a qualitative case study on a new private hospital project in Bangkok, with a stated vision to implement value-based and patient-centric healthcare in its operations. Speaking with emerging leaders in the Thai healthcare industry, this case study will strive to understand how a new paradigm for healthcare organizations can be applied in the existing context. Through an analysis of the existing integrated care literature, and lessons learned from the case study, the final objective is to identify limitations to the Thai context's ability to deliver value-based healthcare from a private sector perspective and what are missing from external policies.

This research has two main areas of focus: The first is a literature review of the existing theory and identified characteristics of value-based healthcare. Much of this originates from the writings of Michael E. Porter, but other scholars and management leaders have contributed on various aspects of this new care delivery system. The second focus is on primary research interviews with leaders of a private sector healthcare project on the implementation of value-based healthcare in Thailand.

This study expects to find the model of value-based healthcare as one that can feasibly push to disrupt the existing methods of healthcare delivery in Thailand. However, both structural and behavioral challenges are sure to emerge given the novelty,

and indeed the revolutionary implications. These are undoubtedly many, but the major challenges will need to be identified. Based on the findings of this paper, researchers, healthcare professionals, and policymakers can explore remedies and solutions to these challenges and contribute further by exploring the nuances of operational aspects of the model; the building of knowledge platforms and training material, and; by reducing the barriers to, promote implementation of value-based healthcare in Thailand.

1.4 Organization of the Study

This paper divides the study into five chapters. Following an introduction, chapter two will delve into the literature on integrated care and value-based healthcare, in reference mainly to Michael E. Porter-the pioneer of value-based healthcare-defining its characteristics and contrasting them with traditional healthcare systems. Chapter three lays out the research methodology, while chapter four performs an analysis of the case study interviews conducted with emerging healthcare leaders on the innovating forces in the Thai healthcare context. Chapter five provides conclusions on the feasibility of implementing value-based healthcare in Thailand, and identifies structural and behavioral challenges to its successful implementation.

CHAPTER II
LITERATURE REVIEW

2.1 Conceptual Framework: Systems Thinking

The healthcare industry is a complex systems of dynamic relationships spanning the interests of various stakeholders from policy makers, payers, patients, and healthcare providers, all the way through to the pharmaceutical companies. Systems thinking theory is a conceptual tool used to view how things are connected to each other within a notion of an interdependent, and holistic entity. As a concept it will form the theoretical framework of this study in order to help us estimate the relationships between variables, and to better understand the complexities of implementing value-based healthcare in Thailand.

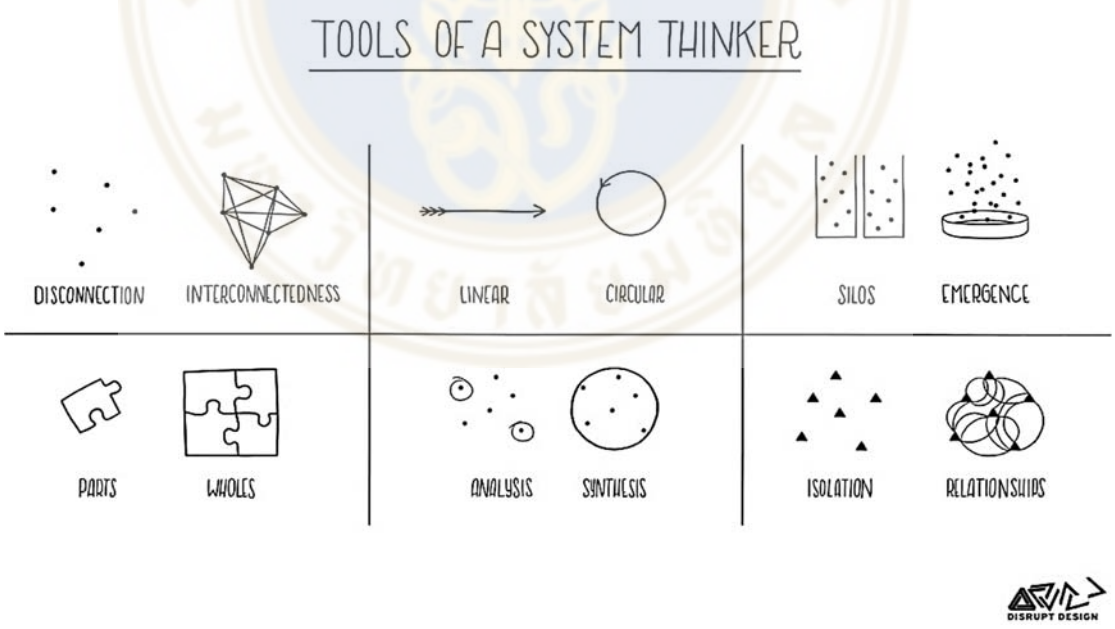

Figure 2.1 Tools of a system thinker

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Systems thinking theory and design focuses on six key themes that define specific sets of actions: Interconnectedness; synthesis; emergence; feedback loops; causality, and systems mapping (Acaroglu, 2017). This paper will primarily borrow the ideas of interconnectedness, as a shift from the linear mindset to a more circular and interdependent mindset that is crucial in understanding dynamic issues; and of synthesis-as opposed to merely analysis-as encouraging a holistic approach, and an integrative understanding of phenomena. In this study, we will use a systems thinking framework as a tool to untangle the complexities of the healthcare industry where relationships between stakeholders, processes, and variables are often multifaceted and dynamic. Systems thinking will help us understand the big picture, and identify the coordination and connections necessary to ensure a continuum of care delivery, as well as to identify obstacles to efficiency and gaps in the healthcare delivery system.

In efforts to address the rising cost of healthcare, the global healthcare community is urgently seeking strategies and solutions to rebalance the ways in which medical services, equipment, and drugs are priced, and the power dynamics that govern these. It is often the patient that receives the brunt of these hidden and uncoordinated costs, and that creates unnecessarily complicated and opaque payment models. For example, in the traditional volume-based care model, a fee-for-service system can result in a hefty bill for the patient, with no real correlative benefit in terms of improved health or wellbeing. The fragmentation of such payment models is reflective of traditional healthcare's own fragmentations, and there are strong elements within the global community looking to transition to alternative payment models, and with it, the more resource efficient and patient-centric model that value-based healthcare proposes.

In seeking to conceptualize ways to address rising healthcare costs, and the associated inefficiencies-such as restricted services, overuse of care, diagnosis errors, and resistance to innovation (Porter and Teisberg, 2006)-that have become magnified, a new theory of integrated care known as value-based healthcare has emerged. Highlighting paradoxes in the existing system, a central argument of value-based healthcare is the zero-sum competition in healthcare whereby competition takes place at the wrong levels and on the wrong things. For example, we see competition to capture patients and restrict choice; competition to increase bargaining power; and competition to restrict services in order to reduce costs; none of which increases value for the patients.

The book that introduced value-based healthcare (VBHC) to the healthcare community actually stemmed from efforts made in management literature. Porter and Teisberg's Redefining Healthcare: Creating a Value-Based Competition on Results (2006) questions the limitations of the existing care delivery model that operates at the nexus of delivery structures, health insurance, and standards for coverage. Identifying root causes of the paradoxes in the existing healthcare model, Porter and Teisberg present principles of value-based competition that demonstrate how competition should be driven by improving value for patients and centered on providing full cycle of care for medical conditions, rather than on volume-based fees-for-service. This publication planted the seeds for the theoretical development of value-based healthcare (VBHC) as a remedial concept to the multitude of growing problems that have emerged from the traditional healthcare model.

2.2 Defining Value-Based Healthcare (VBHC)

Value-based healthcare is a concept strategically designed to solve the complex problems of healthcare, and essentially to improve health outcomes at lower cost (Porter, 2013). Michael E. Porter, a professor at Harvard Business School, is a pioneer of "value-based thinking," and believes it has the potential to revolutionize and transform healthcare strategy, delivery, and payment, emphasizing that the prerequisites for delivering value hinge upon providers focusing on quality, "on deepening their expertise, and expanding their ability to serve the complex and interrelated needs of each patient over the full course of care." (Porter, 2013).

In his article for the World Economic Forum (2019), Jan Kimpen, Chief Medical Officer for a leading health technology company further defines value-based healthcare as a system that "encourages elements like quality, safety, the patient experience and their participation in decision-making by the care team." He acknowledges the difficulties of implementation but adds that with right execution, "it supports cost-effective care delivery while still being compliant with evidence-based guidelines."

2.3 Key Elements of Value-Based Healthcare

Porter and Lee further refined the key elements of value-based healthcare, which they outlined in a lengthy article, “The Strategy That Will Fix Healthcare” (Harvard Business Review, 2013). A definitive resource for VBHC theorists and practitioners, this article looks at the big picture and maps out the interconnected web of strategic elements necessary to create fertile ground on which VBHC can take root. It defines the characteristics of value-based healthcare as an integration of six interdependent multi-facets that must be applied by healthcare leaders in order to pivot interest towards a “value” agenda, a new strategy to shift the limitations in the current health systems. Using Porter and Lee’s mapping, healthcare providers should be able to identify the bottlenecks in their own systems, and map out their own pain points.

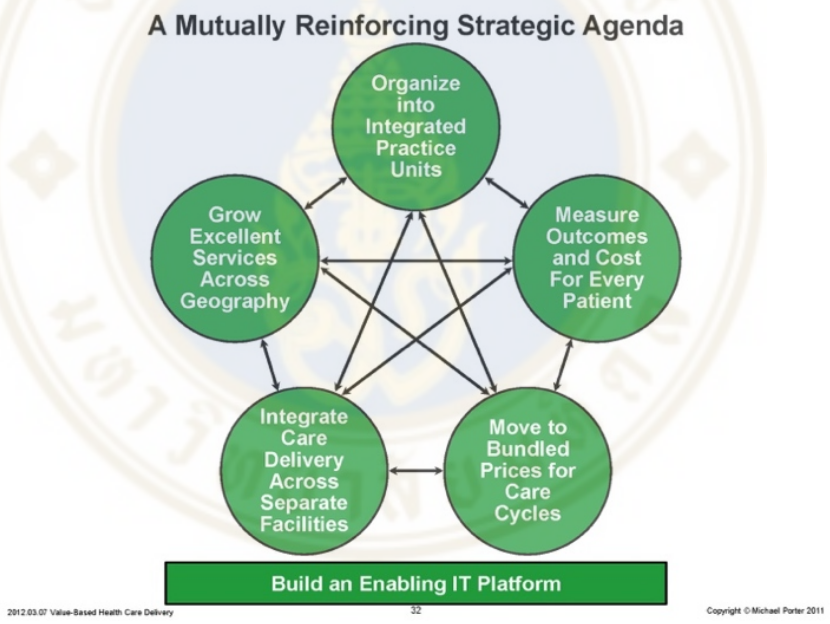

Figure 2.2 A mutually reinforcing strategic agenda

These six elements include:

1. Created and organized Integrated Practice Units (IPUs) which is an integral transformation in how providers and clinicians deliver integrated care, centered around the patients. It awards primary care a major role in coordinating tailor-made and preventative care for individuals to reduce the volume of those needing secondary and tertiary care.

2. Measuring outcomes and costs for every patient whereby these become the metrics for determining “value.” Outcomes should cover the full cycle of care for the condition, and track the patient’s health status after care is completed.

3. Bundle payments for care cycles which act as an alternative to the existing methods of payment whereby a single payment is made for all services performed for a certain condition or care delivered within a defined period of time.

4. Integration of care delivery across separate facilities that revolve around defining the scope of services, concentrating volume in fewer locations, choosing the right location for each service, and integrating care for patients across locations.

5. Expand excellent service across geography is characterized by two suggested models: the hub-and-spoke model or a clinical affiliation model to ensure efficient geographical strategy for delivering value-based healthcare across locations.

6. Build an enabling information technology platform which should be the combination of these six facets: patient-centric records; common data definitions; encompassing all types of patient data; accessibility of data by everyone involved; templates and system references to improve efficiency by clinician users; and ease of extracting information as reports.

Porter’s application of systems thinking aligns with the lens through which this study is being conducted, however, the article and its strategy remain theoretical, and the article gives little attention to specific problems of implementation, which are sure to be compounded when taking middle-income countries as target sites.

The conceptual literature on “integrated care” has been steadily growing-theoretically in the academic world, and more practically amongst the business world, especially through consultancy-assisted explorations. It is a vibrant school of thought and management experimentation that is witnessing the transformation in how we are changing the healthcare delivery system. Another area of literature that is vital to this process of change is the management field of literature, especially that of “change management” literature, led by John Paul Kotter, the Konosuke Matsushita Professor of Leadership at the Harvard Business School.

2.4 Definition of "Value" and "Values" in Healthcare

A new genre of research developing as "integrated care literature"- still, to date, mainly comprised of journal articles and consultancy papers-is a growing field of interest in the global healthcare community. However, the dearth of substantial studies should not understate its potential as an emerging and powerful counterweight to the existing system of traditional healthcare delivery. It challenges, to the core, the way we have come to accept and view care delivery as a fragmented set of different treatments (and the consequences that arise from this), rather than as an integrated and connected system that serves the interests of all parties.

In his article, Zonneveld et al. embark on defining the clarity of "value" and "values" in the integrated care literature. The term "value", used in "value-based healthcare", refers to the degree of success shown by healthcare providers in meeting needs of clients, relative to costs. Whereas "values" in the definition of integrated care literature, are regarded as essential for increasing staff commitment to delivering the best quality for clients in successful integrated care practices. The understanding of the "values" of integrated care is necessary for the delivery of improved quality of care and patient experiences. Zonneveld et al. describes value label in an integrated care model into 23 labels as a conclusion to his research on the definition of "value" in the new trend of "integrated care literature". These values in the "values theory", according to Zonneveld, are interconnected in care delivery and their goals are to enhance client experience, population health, and cost-effectiveness as the "triple aims" philosophy in the integrated care literature.

This new body of literature has emerged in response to the existing traditional care model which is a volume-based healthcare delivery model that often utilizes a silo system of uncoordinated care, resulting in resource inefficiencies that cost both the hospitals and the patients money and time. The rising cost of receiving healthcare is further compounded by the relationship-dynamics between the existing healthcare model and auxiliary industries such as the pharmaceutical and technological industries on which hospitals and healthcare providers necessarily rely.

2.5 An Example of International Experiences of VBHC: Santeon

Santeon is a cooperative association of seven teaching hospitals across the Netherlands established in 2010; and these hospitals account for 11% of Dutch hospital care volume, generating €2.9 billion in annual revenues. In 2015, Santeon began working with the Boston Consulting Group to make value-based healthcare a reality at the hospitals. A 2018 report (Boston Consulting Group, 2018), reflects on the VBHC implementation, its development across patient groups, the metrics used to determine outcomes, how these affected operational efficiency, and the lessons learned from a public pilot in the Dutch-context.

Perhaps of most interest to this paper is the practical trial of outcome metrics-an element that necessitates testing in the real world. Santeon's patients played a central role in defining all metrics related to the outcomes and processes that matter most to them, and as much as possible, Santeon used the International Consortium for Health Outcomes Measurement (ICHOM) indicator sets.

Santeon's experiences with VBHC offer a number of valuable lessons for hospitals that are trying to improve healthcare quality while maintaining or lowering overall costs. These are summed up in seven key lessons, that will be of value to this study as it analyses the Thai case study and seeks to answer the question of whether VBHC is implementable in Thailand.

1. Develop a common understanding of value and ensure long-term commitment;
2. Start small, be pragmatic, and create a snowball effect;
3. Build a safe learning environment, and keep up the pace toward transparency;
4. Have medical professionals take the lead, and provide them with process support;
5. It's about the patient-and must be implemented with the patient;
6. Improve locally, and learn from others;
7. Implementing VBHC is not a quick-fix solution, but it leads to groundbreaking and continuous improvements.

These key lessons along with three foundations-namely, a shared ambition and long-term commitment towards value-based healthcare; the establishment of a value-based healthcare model in all seven of its hospitals to better benchmark and leverage

the network's combined expertise; and the establishment of right infrastructure and "governance" systems—that Santeon cultivated prior to their implementation are valuable benchmarks for this paper's own case study.

Santeon is now widely recognized in the Netherlands and beyond as a VBHC pioneer. This is the most significant research undertaken that lays out, in detail, a case study of successful implementation. As such, it provides enormous understanding and insight into practical lessons-learned that this study has taken on board in its own contextual analysis.

2.6 Literature Gap

The integrated care literature has developed steadily over the past fifteen years. Value-based efforts and integrated care have become buzzwords in the progressive healthcare arena. However, there still exists gaps in the accompanying literature where both qualitative and quantitative research is lacking. This limitation of the existing literature makes it difficult to evaluate the degree of success value-based care has seen in reality, and indeed whether it is implementable—in part or in whole—in which socio-economic and geographical contexts.

There exist a few studies on implementation in private hospitals, and on the national level there is the aforementioned study on the Netherlands, but in the grand scheme of things, there are still relatively few lessons learned from which new projects around the world can really benefit. Though articles, journals, and online consultancy papers from global consultant companies are most up to date and most useful in terms of this research, this gap in the literature may be attributed to the absence of coordinated body to track cases of the implementation of VBHC in order to better monitor and evaluate its effectiveness. Additionally, the literature has not yet covered any concrete examples from developing or middle-income countries whose challenges will surely differ and be that much more complex, particularly with regards to issues of payment.

This study aims to fill in the gap of knowledge in the case of Thailand and its experimentation in implementing VBHC. How can the right alignment of elements in a private healthcare eco-system, health policies, and health regulations can facilitate the planting of VBHC. Findings from the study offer perspectives of a private hospital

in the setting of healthcare system in Thailand. Helping with suggestions for policy makers and healthcare managers to understand the context of work, the limitations, the success factors, and to go beyond barriers in order to launch VBHC to improve quality and efficiency of future care delivery system.

CHAPTER III
RESEARCH METHODOLOGY

3.1 Context

In a healthcare landscape as saturated as Thailand's, the goal of this study is to understand how a new private healthcare player, Hospital X, and how it aims to differentiate itself from the existing and established healthcare providers, and how they aim to turn value into competitive advantage, by using an array qualitative measurable outcomes rather than focusing solely volume-based metrics and the financial bottom line.

3.2 Study Design

This study used a qualitative research methodology that focused on a new private hospital project in Bangkok, as its case study. Through a series of in-depth interviews, office visits and non-participant observations, and questionnaires, qualitative data was collected from the project's leadership on its vision and plans for executing value- based healthcare in Thailand, and their mission to innovate the care delivery model and organizational structure. Research interviews were conducted with those in leadership positions, namely the Chief Executive Officer, the Clinical Design Lead, and the Financial Controller. Documentary reviews on the project's vision and mission, and its practical realizations of value-based healthcare form the bulk of the interest to this study, as it is the only private healthcare provider in the country that has demonstrated interest in diverging from the traditional care model. Its leadership was also amenable to sharing their vision and insights with this researcher. The leadership of the project also kindly allowed the researcher to be present on series of internal workshops as a non-participant observer.

3.3 Data Collection

The three main methods that were used were;

3.3.1 Documentary Reviews

The documentary reviews data stems from two sources:

- Relevant readings in the form of journal articles, gathered from valuable sources, including papers and consultancy reports from corporate experts, and books recommended by the interviewees during the interviews.
- A study of the vision and mission of the case study organization, as well as internal and/or confidential planning documents and data kindly shared for this project.

3.3.2 Non-participant Observations and In-depth Interviews

Some data collection for the study came from a non-participant observations method from observing internal brainstorming sessions and workshops conducted to align the vision, mission, and strategy of the organization. The main data collection for this study is a result of a series of an in-depth interview with the leadership of a new private hospital project in Thailand. This hospital forms the case study for this paper. The interviews at the case study organization were conducted with: The Chief Executive Officer (CEO), the Financial Controller (FC), and the Clinical Design Lead (CDL). The interview with the CEO focused on the hospital's vision and mission, and also on the hospital's strategy to implement a new delivery care model in Thailand. The interview with the Financial Controller focused on the project's business model and potential payment models. The interview with the Clinical Design Lead explored the possibilities of operationalizing the hospital's vision to implement value-based healthcare.

3.4 Data Analysis

The protocol for qualitative data analysis is shown in Figure 3.1. The researcher used a set of framework questions as and also a logbook to write down his notes from the interviews and observations. The framework was based on explorative and qualitative design with interviews as the data collection method. A semi-structured interview is for data collection. Probing questions were asked during the conversations to clarify

the responses and to gain insight into the topic being discussed. The questions were added on, adjusted or removed based on the situation.

As mentioned, the data types were extracted from three main methods; documentary reviews, non-participant observations, and in-depth interviews. The process for qualitative data analysis included:

1. Summarize information of the core idea, synthesized and categorized findings into emerging themes
2. summarize related patterns and create a category of themes, that compare existing concepts and theories from literature
3. create a proposition and recommendations.

The researcher was responsible for synthesizing themes and subthemes using this protocol, but had consulted the academic advisor during the content analysis process.

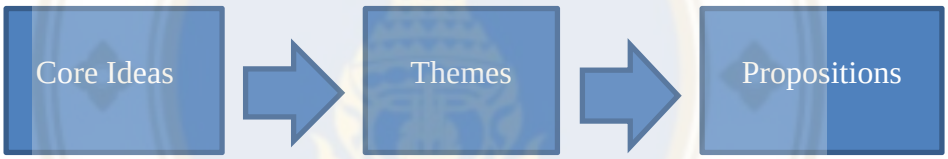

Figure 3.1 The protocol for qualitative data analysis

All contents and data collection of the study rendered the complexity of implementing VBHC in Thailand. The theme of the data collection came out to be that a complete ecosystem that supports the missing links of the implementation of VBHC is truly vital. Systems thinking approach is the pattern that will essentially brings in the components of VBHC into its operation, in the tradition that defined and lay out by Michael E. Porter. Surprisingly this is the backbone that can unlock the waiting to be disrupted model of existing care which is fragmented, broken value chain, compartmentalized, and also uncoordinated. Using a systems thinking framework, the researcher examined the literature and in analyzing the case study, draws up upon references to Dash et al.'s nine forces that are transforming healthcare, which also base upon systems thinking approach. Finally, the theory of the literature and the qualitative data from the primary research will be synthesized in the conclusion of this study.

CHAPTER IV
FINDINGS

"Implementing the value agenda is not a one-shot effort; it is an open-ended commitment. It is a journey that providers embark on, starting with the adoption of the goal of value, a culture of patients first, and the expectation of constant, measurable improvement. The journey requires strong leadership as well as a commitment to roll out all six value agenda components. For most providers, creating IPUs and measuring outcomes and costs should take the lead." –Michael E. Porter from "Strategy That Will Fix Healthcare" (Harvard Business Review, October 2013)

This section aims to explore how private healthcare providers can deliver a more ethical and value-driven business that ensures the patients they serve do not come second to the shareholders to whom they report and how a new paradigm can be applied in a middle-income context. Taking as a case study a new private hospital project in Bangkok (Thailand), this paper will highlight key findings from documentary reviews given to the researcher by the interviewees, non-participant observation from internal conversations and internal workshops, and in-depth interviews with the project's leadership in order to better understand key structural and behavioral challenges to the implementation of VBHC in a middle-income country.

For the purposes of this paper, the case study project will be referred to as, "Hospital X."

Hospital X is the first private hospital in Thailand with a stated vision to implement a new care delivery system that aligns with the ideals of value-based healthcare. The observation was made between 2018-2019 for over a year, from sitting in internal workshops, and observing from informal meetings. Though it does not plan to begin operations until 2022—and therefore the scope of lessons learned may be limited—this paper acknowledges the willingness of its leadership to share their insights thus far in the form of a series of interviews with its CEO, its Financial Controller, and its Clinical Design Lead. These interviews were carried out over a period of six months, from

March-August 2019. Interview consent forms necessitate that all identifying elements of the case study project be kept confidential.

"Hospital X": A Case Study of Thailand Private Healthcare Provider

Hospital X is a private initiative that aims to create a new model of care delivery, focusing on value-based and patient-centric care, in Thailand. It is being initiated by a single group that currently operates a multitude of major enterprises including: Agricultural; food, telecommunication, digital and online technology, real estate, and retail. The group is also currently invested in businesses in the automotive, financing and insurance, plastics, and pharmaceutical industries. However, it is a new entrant into the healthcare industry, and in building a new business pillar, the company is driven to create a world-class, quaternary-care hospital in Bangkok. The CEO and the team have made various visits to hospitals in the United States, including Mayo Clinic (Minnesota); Massachusetts General Hospital; and Brigham and Women's Hospital (Massachusetts); in order to identify an appropriate model and standards of care delivery to which they should aspire. Hospital X is still in its nascent phases of operational design, and with construction about to begin, the project hopes to open in 2022.

4.1 Theme 1: Hospital X leadership has an understanding of VLBHC, but not sufficient if lack of clarity in applying systems thinking approach of mental models, vision, and integration of the internal ecosystem through technology.

4.1.1 Mental Models

Relaying back to the systems thinking framework, the two levels of perspective to the pattern and structural model are the mental models and the vision. Hospital X's leadership, especially the CEO, is the one who crafted the mental model of the organization, meaning a mental blueprint for the structures of the project. In order to evaluate whether VBHC can be implemented in a middle-income country and whether private players can take the lead in piloting such endeavors, it is important to ensure the common definition of terms. According to the definition coined by The Institute for Strategy and

Competitiveness (ISC), a nonprofit research and education organization founded by Michael Porter, the academic definition of VBHC is: “A framework for restructuring healthcare systems around the globe with the overarching goal of value to patients.” And value is defined as: “The outcomes that matter to patients.”

According to the case study of leadership, the CEO, is well-versed in this literature, and the mission statement of this case study also echoes the sentiments and essence of the theoretical and academic definitions of value-based healthcare. However, it is important that collaborating stakeholders, especially the internal team members, and partners share a common definition of these terms, particularly as elements such as the outcome metrics of geographical contexts may differ quite substantially. Agreed upon definition of terms must be shared also with the patients from whom the value metrics will be determined.

Gathering from the documentary review, the internal document; ‘Visioning the Building of a World Class Medical Center- Developing an Integrated Plan’ of Hospital X, it is clear that the hospital aims to change the format and thinking of the existing care delivery system, as described in the vision, mission, and integrated plan for the new design of the healthcare ecosystem.

4.1.2 The Vision

The vision, according to the system thinking framework, is the picture of the future, the guiding force that determines the mental models the organization holds as important in pursuing the goals is also led by the motivation of the CEO. The vision of Hospital X as revealed by its CEO, is aligned with Porter and Lee’s six elements. The vision of Hospital X is:

“to change the healthcare delivery paradigm in Thailand from treating sicknesses to promoting wellbeing by building a technology-enabled eco-system starting with a quaternary care center in Bangkok”. (internal workshop presentation, 2018)

The vision aims to restructure care delivery, using Porter’s hub-and-spoke model, with Hospital X as the hub and then expanding relevant services across national geography with the aim of delivering value outcomes to patients.

The project's mission statement is divided into four objectives:

- To develop a world-class "Hospital of the Future" that leverages technology and delivers patient- focused care.
- To give back to the Thai public by impacting a wide population, whilst bringing the latest research and international leading practices.
- To leverage synergies with existing assets and creating a new eco-system of healthcare offerings in the long term.
- To achieve market leading performance, with a proportion of profits reinvested into training and research

The articulation of this vision and these mission objectives led the leadership of Hospital X to identify five goals for transformation of care:

- To shift care from treating sicknesses to promoting well-being;
- To shift from a doctor-centric approach to a patient-centric service leveraging innovative technology and operating model.
- To shift from reactive disease treating care model to a new care model that is promoting healthy living through prioritizing prevention, personalized care, healthy behavior changes, and faster recovery.
- To focus on reinvesting into cutting-edge treatment to research the life sciences landscape being shaped in areas aligned to the hospital's care model instead of profiting owner and shareholder's benefit.
- To shift from disparate data with limited use in clinical practice to analytical insights to improve diagnosis, preventative actions, and quality of life. They want to be able to offer global best practices to world-class practices and training along with global partnerships, by building a technology-enabled eco-system starting with a quaternary care center.

These goals are aligned with Porter and Lee's six elements necessary to implement VBHC, however, the fourth point seems to go above and beyond: Hospital X is, as described by the leadership;

"Hospital X is keen to emphasize its social contribution to the Thai public by reinvesting a portion of their profit into research and development, and training". (CEO interview, 2018)

The vision, mission objectives, and Hospital X's goals for transformation of care are all follow a value-based framework, however, it should be noted that it remains to be seen whether these progressive concepts can be implemented in a Thai context.

4.1.3 Integration of the Internal Ecosystem

It is all well and good to conceptualize a project along ideal lines, but implementation is just as-if not more-important especially in terms of whether a project can deliver on its promised outcomes. While Hospital X is not due to become operational for another two years, it is in the process of refining its implementation strategy so as to ensure that all complementary services and systems are well-integrated to deliver a continuum of prevention-oriented care. Nonetheless, due to its early stage development, such interviews with its leadership are not conclusive. However, they do offer insight into some of the unique opportunities and challenges that a private entrant, with a stated VBHC vision, faces as they discuss implementation strategies.

Gathering information from the non-participation observation, listening to the conversation according to the leadership, the operational plan of Hospital X, will provide full range of:

35 specialties in six centers of excellence, which are: oncology, cardiology, gastroenterology, neurology, rehabilitation, and geriatric. As previously shared, Hospital X's parent company is a well-established corporate player with a diversified portfolio of investments. In developing Hospital X, the leadership is keen to ensure that as much of the company's assets and services can reinforce the hospital's care-delivery system, creating a unique ecosystem for healthcare. With its long term view and strategy in mind, Hospital X will first establish a leading hospital (a hub of quaternary care) before adding satellites centers (spokes) to allow for convenient, cost effective and high-quality care. (internal conversation, 2018)

This hub-and-spoke model will be a technology-enabled ecosystem to better deliver convenient, cost-effective, and high-quality care throughout the full care cycle of treatment. Over time, it will leverage its retail network and healthcare-related auxiliary businesses to expand into out-patient settings for select areas—such as diagnostics, pharmacy, and wellness consultation—and finally build effective online services through its digital telecommunication capacity to engage patients at home. According to Hospital X

internal workshop presentation (2018), by 2035, Hospital X plans to complete the development of a fully-functional satellite system of healthcare-related businesses, that can be leveraged as a tool to vertically integrate the supply chain of care services.

Gathering information from the non-participation observation from the internal workshop of integrated planning, in order to build a successful ecosystem in the Thai context, Hospital X believes;

It needs to develop three key pillars, namely: 1) targeted research and development; 2) an innovative care delivery ecosystem, and; 3) a state-of-the-art training and learning center for a new generation of medical professionals. It has also identified five core competencies to strengthen its pillars, which are: 1) to be a patient-centric state-of-art hospital; 2) to be a magnet with a unique value proposition for the best doctors and talent; 3) to be able to access innovative strategic partnerships; 4) to deliver world class clinical and non-clinical processes, and; 5) to lead a cutting edge Internet of Things and data analytics platform. (internal workshop presentation, 2018)

This type of integration will certainly lend Hospital X a competitive advantage in disrupting the healthcare landscape in Thailand, and also underscores their increased potential for successful implementation of VBHC.

The challenge with the integration of the internal ecosystem will be on how to pull resources, align with other organizations that will bring the value chain delivery. The key resource will be the role of technology, the future of 5G, and integration across the care delivery systems. Hospital X will need to make sure that communication is clear and consistent in its own vision across their business platforms, especially within the internal team at Hospital X, so that everyone truly understands the concept and can be the promoter of the VBHC across all touch points.

4.1.4 Integration through Technology

The effective integration of technology throughout the healthcare delivery process is a strategy that concerns healthcare leaders around the world. At Hospital X, the Clinical Design Lead (CDL) is not only exploring how the project can integrate technology and deploy digital supports, but also how to implement this in a way that is coordinated across multiple “spokes;” does not pass on the cost to the patient, and; is able to deliver outcomes that improve value for all stakeholders. The challenge is

essentially, how to apply state-of-the-art technology in a healthcare setting in a way that is efficient, economical, and effective.

In Thailand, one major contributing factor to low quality and efficiency is the shortage of nurses in both the public and private sector in Thailand (Srisuphan et al., 2015) which leads to unclearly designated job descriptions amongst the nursing and administrative workforce. This often results in an overburdened workforce that are performing tasks that they were neither hired nor trained to perform: Nurses may spend disproportionate amounts of their time on redundant paperwork, and are sometimes also performing administrative tasks for the doctors, rather than performing physical exams or administering health interventions. This is a contextual challenge that the CDL cites as an important element to bear in mind while developing a holistic technology integration strategy for the hospital.

Hospital X has, therefore, chosen to focus on two dimensions with regards to its application of technology: 1) Enhancing the performance of healthcare professionals, and; 2) Improve patient experience in ways that empower them. Enhancing the performance of healthcare professionals means alleviating administrative burdens, automating regular tasks—such as patient scheduling and monitoring—and reducing duplication of efforts amongst the administrative team. To this end, Hospital X aims to introduce artificial intelligence that not only minimizes administrative tedium, but also has the capacity to ensure that everyone participating in a patient's care has a comprehensive view, that it can recommend treatment plans or flag anomalies, and will allow healthcare professionals to move beyond these tasks into spaces in which their roles will result in greater impact, felt more directly by the patient. Empowering the patient relates to the entire spectrum of a patient's experience during their course of treatment: quality of analysis and decisions; speed and efficiency of care; and the ability to access electronic health records and exchange accurate health information throughout—and after—their care. As Porter (2013) notes, "such systems also give patients the ability to report outcomes on their care, not only after their care is completed but also during care, to enable better clinical decisions." Empowering patients through technology will add a sense of satisfaction and leave a positive impact on their experience making it easier for them to schedule appointments, receive test results and appointment reminders, and to monitor personal health records.

4.2 Theme 2: Challenging elements of implementing VBHC: The New Business Model and Bundle Payment

4.2.1 A New Hybrid Business Model

As mentioned earlier, according to the words of the CEO that,

"Hospital X is keen to emphasize its social contribution to the Thai public by reinvesting a portion of their profit into research and development, and training". (CEO interview, 2018)

However, it should be noted that it remains to be seen whether these progressive concepts can be implemented in a Thai context, and how can a hybrid of a for profit and non-profit work together? The challenge is how to design the ownership model of Hospital X. According to an interview, the CEO mentioned that,

"The ownership, the majority shareholder of Hospital X must be a non-profit entity, i.e., a foundation that is run by the corporation group itself with an aim of giving back to the Thai public."

The challenge of this vision lies on a policy that can find a middle path between a charitable cause and drive for profit. There will be many ideas and feedback which may obstruct such progressive idea. Also the idea of giving back to the society also add more complexity to the design of the payment under the vision of VBHC. This is the most challenging aspect in terms of financial design, especially in Thailand, where private healthcare organizations are driven by ensuring returns for shareholders. How should they be investing resources to explore how value-based approaches can improve overall efficiency as well as the outcomes for patients?

4.2.2 Payment Systems Redesign

In order to really innovate the care delivery system for patients, any value-based healthcare project must necessarily redesign its payment systems. This is one major obstacle that prevents established traditional care providers from transforming their offerings into one that is inherently more value-based. Hospital X, as a new entrant into the healthcare industry, is still developing its payment systems and exploring how they might be able to apply Porter and Lee's bundle payment model to their offerings.

As a private initiative, Hospital X's payment system is tied to its business model. The questions that this position reveals include: How does a private hospital design a business model that can accommodate the full course of care and also deliver "value" as an outcome of the service? As well as: How can a private hospital—run as a business—balance a reasonable profit with an emphasis on social responsibility? It is clear that a format that resolves the questions above cannot currently be found within the boundaries of the traditional healthcare setting.

One identifying feature of the literature on VBHC is its emphasis on bundle payment Bundle payment is a payment responsible for the overall care for patients with particular needs: a payment that is inclusive of doctor and hospital costs with inpatient and outpatient both pre and post care; but excludes treatments unrelated to the medical condition (Kaplan, R.S, and Porter, 2015). This marks a significant departure in the ways in which payments are currently handled at traditional care institutions, whereby payment is the sum of individually priced services and fees such as examinations, procedures, consultations, materials, and medicines. In contrast, bundle payment is a model which theoretically should cover care for a "medical condition"—inherently inclusive of any devices, examinations, and services—related to a full cycle of care and treatment for a given medical condition and during a specific time period. It should be noted that "cycle of care" in the literature, is defined by the continuous care that includes treatment, recovery, and rehabilitation, beginning with an initial visit, inclusive of follow-up visits, and continuing through to rehabilitation.

However, there are some important points to mention regarding bundle payments, their outcomes, limitations, and the calculations necessary. For starters, it is imperative that they be outcome-based, aiming to achieve a set of outcome that matter to patients. This means that for a particular medical condition on the bundle payment scheme, healthcare providers and payers must agree on the set of relevant outcomes and the metric indicator that will measure the outcome. Kaplan and Porter (2011) also stresses that bundle payment model must also delineate specified limits of responsibility for unrelated care, and; they necessarily require an understanding the care processes used to treat a condition, in order to give providers, the ability to measure true patient-level treatment costs (and to reduce those costs over time). As Kaplan mentions (2014), these costs can be determined using a two-step approach referred to time driven activity-based

costing (TDABC) which direct providers to strive to maintain their margins, not their current prices.

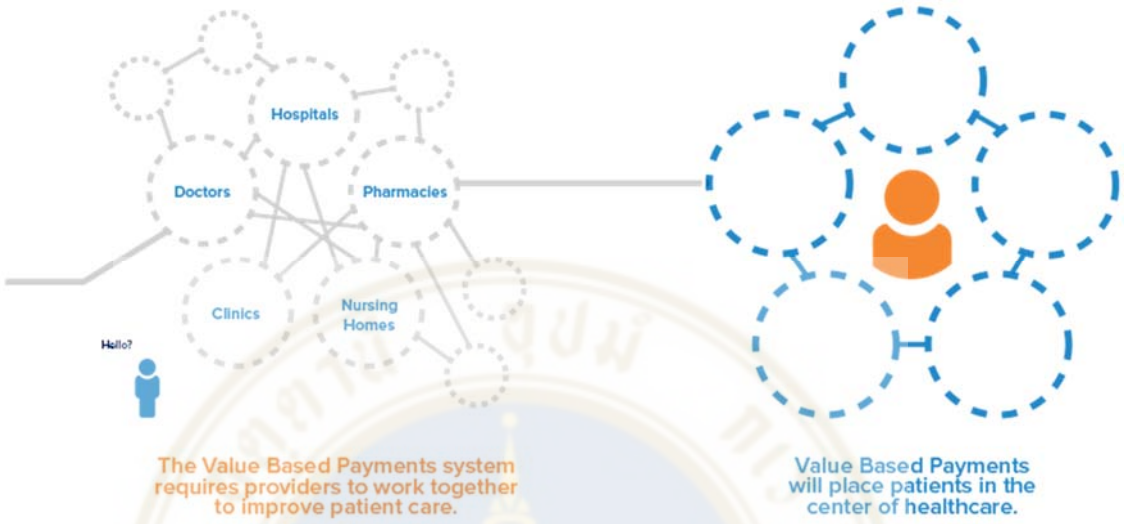

Figure 4.1 Value Based Payments-Millennium Collaborative Care

In the case of Hospital X, they are exploring a bundle payment scheme which they are currently referring to as;

A smart buffet model, where the payment would encapsulate core characteristics of Porter and Kaplan's bundle payment model that will cover the continuum of care from preventative programs to hospital care and through to post-rehabilitation. (Financial Controller, interview, June,13, 2019)

Although specific elements of the smart buffet program have not yet been ironed out, Hospital X's current inclination is a model that relies heavily on three bottom-line aspects that they anticipate will be vital to ensure lean management and operational excellence: technology, data, and customization.

For example, on its journey to realizing VBHC, Hospital X's smart buffet payment system would work in close coordination with the hospital's innovative care delivery systems,

Beginning with selected illnesses, then move on to more selective illnesses. (Clinical Design Lead, interview, December, 26, 2019).

Trials based on a particular disease would need to test the full cycle of care and treatment, calculating all related costs, the outcome for patients, and also efficiency of the treatment. This audit of a cycle of care, would be managed by an integrated practice unit (IPU), vital in coordinating and delivering care, as well as tracking patient data. In this way, Hospital X aspires to guarantee that patients pay for "outcomes" rather than individually-listed "activities." The idea that one pays for value as an outcome is a key principle that any payment scheme must retain at its core.

The elements, and indeed the nuances, of Hospital X's payment model are still in their infancy. How these costs are translated for payers, has yet to be worked out, but interestingly, the concept of such a customizable smart buffet, particularly its preventative program, is being viewed by some within Hospital X as;

A payment scheme with a "retainer fee" on a membership subscription model. (Financial Controller, interview, June,13, 2019)

The road ahead for the redesign of the payment system is still long. There must still be trials and errors in its revenue model, the integration of technology across internal platforms, and most important, the challenge, the uncontrollable factors when dealing with other stakeholders, namely the payers, policy makers, patients, and care providers.

4.3 Theme 3: Alignment with the bigger health systems: Dealing with Others Stakeholders

It is clear that Hospital X has done much due diligence in preparation to become Thailand's first private player to implement VBHC. Their vision and the four objectives of their mission align with the existing theories and the conceptual development of VBHC in the academic and management fields. But, still much needed support will have to come from external policies support, and also the understanding from other stakeholders that the healthcare landscape is shifting, and how to make a right decision upon this coming transformation in a long-term view. There are five main stakeholders in the care delivery systems in which Hospital X needs to communicate and consistently align their vision and action continuously in order to implement VLBHC in Thailand. The important two main questions lie in dealing with 'what' and 'how'.

4.3.1 Patients

Hospital X will have to define with what is the ‘patient experience”, as they mentioned as their core value proposition in the vision and mission statement. Also how to deliver “patient centric” care which the patients can truly feel they are at the center of the service, unlike the existing doctor-centric model of care. How to educate and communicate to them in order to align the definition of VLBHC and its benefits of lower costs and better outcomes to the patients. The important of recognition in changes within patient populations, their needs, and higher patient expectations is essential. The key here is how to fuel the integration of technology with a focus to empower the patient and improve their experience.

4.3.2 Providers

What Hospital X will have to deal with is align the definition and vision of VBHC with the healthcare providers who will have to deliver the clinical outcomes. How to make them agree and set up an accountable system for the care that will be provided. Another force that is critical in the future of the healthcare industry is the difficulties in attracting and retaining a skilled workforce. A right incentivize system need to be implemented in order to retain the workforce, especially how to make VBHC an inspiration for health professionals to be the part of this new transformation. The use of technology will have to enhance the performance of healthcare professionals as well as technology to improve patient’s experience.

4.3.3 Payers

Hospital X will have to deal with payers, whether they are private or state payers on its new payment plan. They will need to explain how VBHC will offer better cost control, deliver a better measure quality outcome and also reduce risks. The financial and funding to implementing VBHC will be the challenge, how will Hospital X convince the payers that VBHC payment model is the future of the healthcare redesign.

4.3.4 Suppliers

Hospital X will need to plan what to deal with medical and pharmaceutical suppliers, and how to align prices with patient outcomes.

4.3.5 Society

Hospital X will have to deal with the society at large in two levels, first, in what they should know about VBHC, and how will it help the reduction of the healthcare spending and also overall health. Especially dealing with health policy makers, and regulators. The second level of dealing with the society at large is how they will contribute back to the society through their business model. It is also addressed through Hospital X's fourth mission objective which states an intent to reinvest in training and giving to the society. The concept of reinvesting into research and human-development is novel to Thailand, and there currently exist no other private healthcare institutions in the country with active research and development practices. This aspiration to balance profit with societal responsibility, though not explicitly articulated by the theorists, is not anathema to the concept of value-based healthcare, and follows the spirit of the concept. However, at this stage of the case study's development, much of this remains aspirational and vague.

Aligning its vision and action with the other stakeholders will be a synthesis of an art and science approach. Dealing with people and proved scientific methods that VBHC will be implementable in the Thai context. Hospital X will need to be a driven pioneer, an example of the market leader who can lead as a collaborative partner, not as a competitor, to its stakeholders and policy makers.

In order to understand the complex relationship of stake holders within the health systems, a given documentary review of McKinsey & Company from the leadership of Hospital X, is a key in unlocking the transformation that will soon occur and urgently need to be communicate to all participating parties. In terms of exploring how private healthcare providers can develop a more ethical and value-driven care delivery business, and the contextual challenges they face with various stakeholders, the information gleaned from this researcher's primary sources, will be measured up against nine forces (Dash et al., 2019) that are shifting the way we manage and deliver healthcare. These are considered important elements in the understanding how value-based healthcare as a new benchmark of care delivery might unfold. These external forces are grounded in innovations in how healthcare is delivered, and innovations in how hospitals are structured, both of which are significant in ensuring healthcare moves towards more

value-based outcomes. Each force puts pressure on healthcare policy makers, providers and hospitals to improve their service, operation, outcome, and productivity.

Through an examination of Hospital's X's vision and mission, we see that its intentions are aligned with the theories and concepts of VBHC. However, creating an integrated ecosystem of care delivery will be crucial in its successful implementation. Systems thinking skillsets are essential for healthcare leaders and managers in overseeing the trends and networking of healthcare organizations, and the characteristic interwoven collaboration across disciplines, sectors, and organizations. In the hospital's development, they have identified three key pillars of targeted research and development, a care delivery ecosystem, and a focus on training the next generation of medical professionals. In terms of long-term vision, the development of activities under these pillars will be crucial in sustaining the efficiency and the standards of quality the hospital aims to achieve, as well as equipping it with the appropriate supportive resources to more fully realize VBHC.

Hospital X has a high potential the true and genuine implementation of VBHC, but there are some missing pieces that need further clarifications, such as bundle payment design. If the business model is clear that it is a bundle payment model, then it will add on to its genuine path to VBHC delivery. The perception and the possibility is there yes, but, it could be better off if the business model is clear, and align with its operation. And yes, they will need both internal leaderships on all levels and external policy to assist and support from other stakeholders to realize their plan for the healthcare ecosystem.

Hospital X also has a high chance to be a complete vertical integration business within their private healthcare supply chain. They have all the dots, which only need to be connected and coordinated effectively. This would have pros and cons after effect, for Hospital X, it will be possible to offer a great range of services with affordable cost, and with other several benefits, but it can also give Hospital X a super strong market power that can monopolize the cycle of value-based care delivery. The outcome from vertical integration will highly depend on two main factors, first how align is the leadership is committed to their vision and mission on social contribution, and second, does Hospital X see that they have to be the owner/ shareholder of every dots on the integrated pieces within the ecosystem? Or there is a room for other stakeholders to work in line

with Hospital X in the integrated care landscape that they design. This will highly depend on policy makers and the understanding of the healthcare landscape as well.

However, as Hospital X remains a couple years away still from beginning operations, the focus to date has been on the second pillar: developing an innovative care delivery ecosystem. Moving away from the general hospitals of traditional care, Hospital X's focus on providing specialty care through its six centers of excellence (and specialist providers) are a promising start to developing a hub-and-spoke model that can, with the integration of technology, coordinate with primary care in a patient's own community setting (Dash et al., 2019). Leveraging its parent company assets, services, and networks will significantly increase the potential of Hospital X to realize such an ecosystem and to build its five core competencies. For example, the company's existing wide-reach retail distribution outlets may be used as locations for community care coordination centers.

Clearly inspired by the theory of Porter and Lee's hub-and-spoke model (2013), Hospital X has a very good chance at creating a mutually-supportive ecosystem in which the probability of their vision to implement value-based care delivery in Thailand is strengthened. It should be mentioned that many of these elements—access to retail distribution centers, telecommunications, etc—appear to be a unique advantage of Hospital X, that one cannot reasonably expect other private or public healthcare providers to be able to replicate. This paper will go on to look at the ways in which Hospital X aims to leverage technology and to redesign payment models in order to innovate care delivery.

It is perhaps with technology that Hospital X has the greatest potential to disrupt the healthcare landscape in Thailand. Digital technologies are driving changes in care delivery, including a move to self-service, remote access, and the greater transparency of digital health data. Digital data will be an important aspect of clinical decision making, and the ability to record, evaluate, and come up with insights about the patients that are key to unlocking the bottlenecks in the healthcare industry in Thailand.

Through interviews with the Clinical Design Lead we can see that Hospital X is clearly focused on two areas in which integration of technology can make a disproportionate impact. In seeking to enhance the performance of medical professionals, Hospital X is acknowledging the growing shortage of nursing and medical administrative

professionals in the Thai context. The healthcare industry will always need human resources and the growing difficulties in attracting and retaining a skilled workforce in Thailand has led to stretched job descriptions for medical employees leading to them becoming overworked and burnt out. Adequately and wholly addressing a shortage of this kind necessitates a comprehensive plan involving multiple stakeholders' support and skills. However, in its own sphere, it is clear that Hospital X is laying plans to do what it can to minimize the effect of such inefficiencies in its own workforce by using technology to ease their administrative load and to reduce duplication of efforts among other benefits that will be felt in both day-to-day and long-term work in delivering quality care.

The benefits that will undoubtedly come with enhancements to workforce performance will surely trickle down to be felt by the patient. However, the complementary focus on empowering patients and improving their experience will also go a long way in ensuring that the hospital project remains patient-centric. The transparent capture and reporting of data between systems, processes, and stakeholders is vital for value-based care. While the it is still unclear as to what functionalities the patients of Hospital X will have access to, in a country with a growing wealth disparity and knowledge gap, responding to such contextual circumstances and leveling the knowledge field is crucial in allowing patients to be more engaged in their own care, and to successfully implementing an efficient healthcare delivery system.

CHAPTER V
DISCUSSION AND CONCLUSION

> Providers that cling to today's broken system will become dinosaurs. Reputations that are based on perception, not actual outcomes, will fade…. Those organizations—large and small, community and academic—that can master the value agenda will be rewarded with financial viability and the only kind of reputation that should matter in healthcare—excellence in outcomes and pride in the value they deliver.
>
> Michael E. Porter from "Strategy That Will Fix Healthcare" (Harvard Business Review, October 2013)

Through an examination of integrated care literature, and an exploration of value-based healthcare from a theoretical and a practical perspective, it is clear that private healthcare providers need not sacrifice patient value, for their own bottom line. Value-based healthcare, as an integrated care delivery system, has the potential to provide more efficient, affordable, and patient-centric care while still delivering returns on financial investment as well as quality of service for society at large. While the investment behind new private ventures into its implementation in Thailand is surely a sign of its feasibility, there are still uncertainties about some key operational aspects.

The perception of VBHC is still almost unknown to people outside the healthcare field. Only a handful of healthcare leaders and professionals heard and read about VBHC, and few people has touch upon the concept in their writings. Is it possible in Thailand? In the researcher's opinion, yes, and we need this transformation in the Thai healthcare system. The signal of change will have to come from the private sector, such as Hospital X, or a coalition of pioneers and change makers who must lead the continuous effort of envisioning and implementing VLHC in the Thai context. The voice of a new entry like Hospital X will be sufficient to shake up the existing healthcare landscape, and send policy makers a signal for the need for change. This will be possible only through collaboration and coalition of visionary leadership from multi-stakeholders, especially the support from policy makers.

5.1 Recommendations 1: Policy

5.1.1 Independent Initiative for VBHC advocacy

From the findings, in order to plant a sustainable form of VBHC in the Thai context, the policy makers and regulators will need to be informed, aware, understand, and agree that VBHC is the future model of the healthcare industry. There must be a lead, a forefront for the advocacy of VBHC, whether in a format from a). a host institution, ie. well-respected public/public hospital (s), or b). an independent body that will have to be responsible for the interdependent platform for major stakeholders who are involved in planting the seed of VBHC. Ideally, this independent body should also come from a well-respected and leading hospitals such as Siriraj, Ramathibodhi, or Chulalongkorn hospitals. The independent body will have to be a responsible platform for educational the stakeholder and the public audience about VBHC, and also play a facilitation role for stakeholders to come to terms in how to implement VBHC for the Thai context.

5.1.2 Private Sector Signaling the Change

There are some characteristics of the private sector in Thailand that is more prone to flexibility, receptivity to change, and in flux for adaptability to survival. These characteristics mentioned, are commonly found in the private sector is essential in embarking on the path of value-based healthcare. Often time, the signal for change from a private sector, especially the influential private entry, is a good alarming system for Thai policy makers and regulators to realize the shifting trend in the global arena.

When stakeholders ruminate upon value-based healthcare and the feasibility of its implementation in any context, a key question that arises is often: Who should lead the charge? The case study used in this paper—a new private hospital project in Bangkok, Thailand—clarified much of the obscurity around this question to determine that in a Thai context, private enterprise is better positioned to pilot value-based healthcare and to lead explorations into its efficacy and potential success.

As the large middle-class population is encouraged to avail of the country's universal health provisions, the polarized options drive millions to ill-equipped, local-level, government hospitals, that are often overburdened. Despite the government's expenditures, it is only able to provide so much. It is not feasible to a coopt such a highly

bureaucratic system into redesigning the model. Governments around the world are often characterized by such bureaucratic inefficiency and procedural obstacles, and Thailand is no different. In interviews with the case study leadership, it became clear that the magnitude of the overhaul needed in order to give value-based healthcare a fair chance of success, could only be undertaken by institutions with a sound degree of autonomy across resources.

Private enterprise necessarily brings its own crucial resources to a project, giving it a higher chance of success over a shorter period of time. Access to these key resources—which include: capital components; diversity of human resources; new initiatives and; a greater ability to integrate and adopt innovation—give such ventures advantages that allow them to create a more supportive and patient-centric ecosystem, with more flexible and customized services, that not only improves access to healthcare but can result in higher patient satisfaction. With the added ability to reinvest in research and development, new private players can also more holistically integrate technology in both diagnostic and delivery systems.

5.1.3 A Payment System that Delivers Value

The healthcare industry has traditionally suffered from complex payment models that involve a web of redundancies, cost inefficiencies, misguided incentives, and hidden costs. Part of the difficulty in healthcare is due to the fact that hospitals often do not have a dominant key performance metric for financial outcomes (Langabeer & Helton, 2016, p. 221). Nor is there much will to experiment with alternative payment models; but in order to really innovate the care delivery system for patients, any value-based healthcare project must necessarily redesign its payment systems.

The bundle payment model, as outlined by Porter and Kaplan, is considered the most probable model, and Hospital X is experimenting with this in their own implementation efforts in Thailand. However, the necessary, and complex, calculations must be outcome-based, aiming to achieve a set of outcome that matter to patients; and healthcare providers, and payers such as the private insurance companies and the government must agree on the metric indicators that will measure these outcomes. As we have learned from the development of Hospital X's payment scheme, identifying these outcomes

are challenging, as they relate to a range of variables that include the leveraging of technologies and the care-delivery system.

VBHC and its new payment system aims to reduce the inefficiency, redundancy and hidden cost that are unknown to the providers, which result in a more affordable price of care for the patients. Relaying back to the systems thinking conceptual framework, bundle payment creates a "reinforcing loop", where improvement from the existing model can be implemented, increasing better outcome, and improve the efficiency of the existing payment model.

5.1.4 Outcome Measurement Redesign

There have been quite thorough explorations into how these outcomes can be defined, not least through the International Consortium for Health Outcomes Measurement (ICHOM), co-founded by Porter. It is these standards that the Santeon project in the Netherlands relied upon. However, bearing in mind the necessity of adopting a systems thinking approach, this researcher believes that much of this will depend on continuous improvements based on feedback loops from patients once Hospital X becomes operational, such as was experienced in the Netherlands. Through an examination of the literature, it is clear that value-based healthcare is dependent on the articulation of outcome measurements; and synergizing this with what we have learned from the case study, for a private provider of healthcare, these need to validate return on investment using value-oriented performance indicators which adds a level of complexity to the existing challenge.

5.2 Recommendation 2: Implementation for Healthcare Management Practice

Though there are clearly many uncertainties and questions facing both policy makers and also the healthcare providers in Thailand, the case study has also highlighted some important behavioral and structural challenges that need to be addressed in order to ensure the successful implementation in this context: Of these, perhaps the two most pertinent challenges are conceptual understanding and willingness at the leadership level, and the details of such an interconnected payment system that can really pass on benefits

to the patient. The dearth of visionary leadership first is often overlooked, but should not be underestimated; and while much time is devoted to discussing the outcome measurements that will guide payment models, it has yet to be resolved.

5.2.1 Systems Thinking Mental Mode

The main challenge and limitations will be the limited knowledge and understanding of VBHC from the current policy makers. Many will need time to see the interconnectedness of care cycle, the whole healthcare ecosystem, applying the systems thinking lens into their mindset, and will need to be committed that transformation is needed for the good of everyone in the Thai society, especially to the healthcare sector and also the economy. Many existing people in the place of power and influence will resist the need of change as to preserve the status quo and preserve power dynamics.

5.2.2 Visionary Leadership

Conceptually, value-based healthcare needs a systems thinking approach in order for leaders to identify solutions for the numerous complex issues facing the healthcare industry in Thailand. Change must begin at the leadership level where there should be a commitment to reflect, review, and redesign the core systems. The present model of Thailand's top private healthcare sector is of "value", only for the shareholders: Patients can not easily determine real outcomes of their treatment amidst, for example, a series of hidden costs. This system is not sustainable, and at the leadership level, the vision must develop a longer-term lens that maintains a focus on value for patients and emphasizes continuous action towards this goal across every entity in the ecosystem.

Borrowing from our systems thinking framework, developing an understanding of one's efforts in an interconnected web of activities should be the foundation from which today's healthcare leaders and managers view the industry. However, the traditional corporate culture in Thailand still favors a top-down approach focused on the idea of seniority. An important question for the leadership, is how to shift towards a more collaborative and flexible approach. Most importantly, there must be a sense of purpose and of ownership in the project by all tiers of the workforce.

An unexpected finding of this research has been what little emphasis current models of value-based healthcare place on those on which the day-to-day system relies.

Perhaps typical of contemporary strategic management approaches, the human side of healthcare has neglected in the equation of value-based healthcare strategy proposed by Porter. The service industry in Thailand is recognized for the genuine quality of care. This so-called “service-mind” is a draw for both hospitality and tourism ventures in the country. Amidst all the deserving excitement about the integration of digital technology in a system such as value-based healthcare; in a Thai context however, the human side of healthcare can be considered a unique strength and opportunity. Nonetheless, the workforce need to be made advocates of the system in order for it to flourish. If we take as our starting point, the value of human connection in creating positive experiences, we can see that it is important to develop the intangible asset of Thailand’s “service-mind.”

5.2.3 Change Management

Borrowing idea from John P. Kotter’s Change Management Strategy, there are obstacles to the change process that often occur from the intention of transforming an organization into a new direction. The main obstacle is that as an organization, we often confused the roles of managers and leaders, especially in time of an urgent crisis. According to Kotter’s insight, management’s mandate is to minimize risk and to keep the current system operating. Change, by definition, requires creating a new system, which in turn always demands leadership (1995). First, transformation often begin when an organization has a new head who is a good leader and sees the need for a major change, and if the renewal target is the entire organization, the CEO is key (1995). Second, for a successful transformation effort, a committed guiding coalition outside the formal boundaries and protocol is needed. Third, is the lack of vision and strategy, the picture of the future, the clarity of direction in which the organization needs to move is what blocked and blinded the process of transformation. Fourth is the need for communication of the vision and the alignment of words and deeds by the leaders. Fifth is the courage to remove the obstacles, which most time comes from the existing organizational structure.

5.3 Recommendation 3: Further Research

For further research, as a relatively new concept born in 2006, value-based healthcare is model with which few are familiar, and fewer understand in any depth. Much of the excitement surrounding the opportunities and benefits that value-based healthcare systems can provide remain theoretical, as there are few contexts that have implemented it completely. Also this paper has identified two main limitations of the existing integrated care literature: 1) the lack of practically implemented case studies; 2) unique challenges presented in implementation in developing countries.

This paper's case study is a project that is (to date) still in-progress and as yet lacks substantial evaluative quantitative data. However, the investment being poured into the case study project suggests there is a fair degree of trust in its successful implementation. Nonetheless, interviews conducted with its leadership remain visionary and qualitative and it is too early to address all operational nuances.

This study on VBHC on the Thai context is a pilot research into a high potential player which intends to embark on the new care delivery system.

This paper is just an exploration of the possibility in implanting VBHC in Thailand using as a case study a private hospital project. In competition with more established players in the traditional care arena, the development of this new project has the potential to disrupt the existing healthcare landscape in Thailand. Observing and familiarizing with this new entry, Hospital X, a pioneer which wants to transform the present healthcare system is just a beginning of the study that looks into a case study of integrated care and VBHC model for Thailand. There will be much more require further data and research to conclude that the vision of VBHC will be successful story.

This paper notes that there remain key challenges, such as leadership development, continuous change management, and the crucial details of payment systems that require urgent attention; but that there also exist unique opportunities that are yet untapped. Given the magnitude of the transformation facing the traditional model of healthcare in Thailand, policy makers must also understand the concept of value-based healthcare and correct regulations need to support the integration of care systems, along with legal and financial systems. The redesign of the regulatory frameworks is needed in order to allow for the passage of more policies that promote and encourage flexible approaches to accommodate the dynamic complexities inherent within a system such

as value-based healthcare. Based on a simple return-on-investment analysis, this researcher recommends that the relevant government agencies should therefore consider doing everything within their power to facilitate private sector explorations into more flexible care delivery systems, in order to take advantage of their potential to expand value-based care from pilot projects into operational models that can be quickly scaled up. Recognizing that a long-term and multi-disciplinary view is essential, subsequent related research might do well to study necessary and complementary aspects of how Thailand can overcome its challenges to a successful implementation of value-based healthcare.

In sum, this paper concludes that though value-based healthcare offers promising returns to both patients and society, and that it can be feasibly implemented here; in the Thai context it should be piloted by private enterprise, with the regulatory facilitation of the government. With sincere and keen interested from a big private sector coming upon VBHC, the researcher hopes this will a signal to policy makers about the coming global transformation in healthcare. Technology, legal and regulatory frameworks, clinical skills, training, and payment reform must each be managed in an integrative manner and with a progressive approach. The success of the implementation of value-based care in Thailand will be depend upon the spirit of openness, trust, and collaboration and partnerships between all healthcare stakeholders. Especially post the Covid-19 pandemic, Thailand is ripening and need to adopt an alternative model of VBHC if the country is aiming to be the global leader in health and wellbeing sector.

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APPENDICES

Appendix A: Questionnaires

The following questions are the guideline to assess individual informant's perception towards value-based healthcare.

Five General Questions

1. Have you ever heard about value-based healthcare?
2. What is your opinion on value-based healthcare?
3. Can value-based healthcare be implement in Thai context?
4. Is the situation in Thailand ripe for disruption in the healthcare industry?
5. What are the key factors in the Thai healthcare systems that are the bottlenecks in implementing value-based healthcare?

Five Structural Model Questions (Location/Delivery System Design/ Business Model)

1. How should implementing value-based healthcare in Bangkok look like? What is your preferable design?
2. What is the ideal healthcare ecosystems in your opinion that will support the implementation of value-based healthcare?
3. What is the ideal business model/revenue stream for value-based healthcare
4. How will value-based healthcare benefit the patients?
5. How will digital strategy transform the healthcare industry in the context of value-based care delivery?

Five Personal Attitude Questions

1. In your opinion, what are the advantages of value-based healthcare?
2. How about the disadvantages?
3. What is the risk associated with implementing value-based healthcare?
4. Who are the important stakeholders that are crucial in the the implementation of value-based healthcare in Thailand?
5. What is the most distressing issue that need to be urgently look upon, that is obstructing the implementation of value-based healthcare?

Appendix B: Certificates

IPSR-Institutional Review Board (IPSR-IRB)

Established 1985

COA. No. 2019/10-397

Certificate of Ethical Approval

Title of Project: ***Disrupting the Healthcare Delivery System: A Case Study on Implementing Value-Based Healthcare in Thailand***

Duration of Project: ***7 months (November 2019 - May 2020)***

Principal Investigator (PI): ***Mr. Kuhn Sucharitakul***

PI's Institutional Affiliation: ***College of Management, Mahidol University***

Approval includes:
1) Submission form
2) Research proposal
3) Interview guideline
4) Participant information sheet
5) Informed consent document

IPSR-Institutional Review Board (IPSR-IRB) met on 31st October 2019 and decided to issue the COA to the above project.

Signature

(Professor Emeritus Pramote Prasartkul)
Chairman, IPSR-IRB
Valid from November 19, 2019 to November 18, 2020

Remarks
1) Upon the completion of this project, the PI should inform the IPSR-IRB of such progress.
2) The PI is obliged to notify any modification of the research project to the IPSR-IRB.
3) For verifying this document, please use QR code above.

IORG Number: IORG0002101; FWA Number: FWA00002882; IRB Number: IRB0001007

Office of the IPSR-IRB, Institute for Population and Social Research, Mahidol University, Phuttamonthon 4 Rd., Salaya, Phuttamonthon district, Nakhon Pathom 73170. Tel (662) 441-0201-4 ext. 223

CITI PROGRAM

Completion Date 01-Oct-2019
Expiration Date 30-Sep-2023
Record ID 33522563

This is to certify that:

Kuhn Sucharitakul

Has completed the following CITI Program course:

Human Subjects Research (Curriculum Group)
Social & Behavioral & Humanities Researchers (Course Learner Group)
1 - Basic Stage (Stage)

Under requirements set by:

Mahidol University

Collaborative Institutional Training Initiative

Verify at www.citiprogram.org/verify/?w56423abd-2243-4d11-a459-5c6193bc7ffb-33522563

COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)

COMPLETION REPORT - PART 1 OF 2
COURSEWORK REQUIREMENTS*

* NOTE: Scores on this Requirements Report reflect quiz completions at the time all requirements for the course were met. See list below for details. See separate Transcript Report for more recent quiz scores, including those on optional (supplemental) course elements.

- **Name:** Kuhn Sucharitakul (ID: 8525594)
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- **Stage:** Stage 1 - Basic Stage

- **Record ID:** 33522563
- **Completion Date:** 01-Oct-2019
- **Expiration Date:** 30-Sep-2023
- **Minimum Passing:** 80
- **Reported Score*:** 82

REQUIRED AND ELECTIVE MODULES ONLY	DATE COMPLETED	SCORE
Assessing Risk - SBE (ID: 503)	30-Sep-2019	5/5 (100%)
Informed Consent - SBE (ID: 504)	30-Sep-2019	4/5 (80%)
Privacy and Confidentiality - SBE (ID: 505)	30-Sep-2019	5/5 (100%)
Unanticipated Problems and Reporting Requirements in Social and Behavioral Research (ID: 14928)	30-Sep-2019	4/5 (80%)
Populations in Research Requiring Additional Considerations and/or Protections (ID: 16680)	30-Sep-2019	4/5 (80%)
Conflicts of Interest in Human Subjects Research (ID: 17464)	01-Oct-2019	4/5 (80%)
History and Ethical Principles - SBE (ID: 490)	29-Sep-2019	4/5 (80%)
Defining Research with Human Subjects - SBE (ID: 491)	30-Sep-2019	5/5 (100%)
The Federal Regulations - SBE (ID: 502)	01-Oct-2019	2/5 (40%)

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** NOTE: Scores on this Transcript Report reflect the most current quiz completions, including quizzes on optional (supplemental) elements of the course. See list below for details. See separate Requirements Report for the reported scores at the time all requirements for the course were met.

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- **Course Learner Group:** Social & Behavioral & Humanities Researchers
- **Stage:** Stage 1 - Basic Stage

- **Record ID:** 33522563
- **Report Date:** 03-Oct-2019
- **Current Score**:** 82

REQUIRED, ELECTIVE, AND SUPPLEMENTAL MODULES	MOST RECENT	SCORE
Defining Research with Human Subjects - SBE (ID: 491)	30-Sep-2019	5/5 (100%)
The Federal Regulations - SBE (ID: 502)	01-Oct-2019	2/5 (40%)
Assessing Risk - SBE (ID: 503)	30-Sep-2019	5/5 (100%)
Informed Consent - SBE (ID: 504)	30-Sep-2019	4/5 (80%)
Privacy and Confidentiality - SBE (ID: 505)	30-Sep-2019	5/5 (100%)
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