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Strategic Options for the Malaysian Health System, March 2016

HARVARD T.H. CHAN SCHOOL OF PUBLIC HEALTH

Table of Contents

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Glossary of Acrononyms

CRC	Clinical Research Center
DDD	Defined Daily Dose
DOSM	Department of Statistics Malaysia
GP	General Practitioner
HE	Health Expenditure
HIMS	Health Information Management System
HMO	Health Maintenance Organization
IHM	Institute for Health Management
IMR	Institute for Medical Research
IT	Information Technology
KK	Health Clinic
MHSR	Malaysia Health Systems Research
MNHA	Malaysian National Health Accounts
MNN	Maternal, Neonatal, and Nutritional Conditions
MOH	Ministry of Health
MO	Medical Officer
NCD	Non-Communicable Disease
OECD	Organization for Economic Co-operation and Development
PHC	Primary Health Care
SMRP	Medical Care Information System / Sistem Maklumat Rawatan Perubatan
SOCSO	Social Security Organization
SPIKPA	Health Insurance Coverage Scheme for Foreign Workers
STHC	Secondary and Tertiary Health Care
THE	Total Health Expenditure
TPA	Third Party Administrator
WHO	World Health Organization

Executive Summary

1. Introduction

Malaysia Health Systems Research (MHSR) is a collaboration involving the Government of Malaysia and Harvard University. The aim of MHSR is to support the Ministry of Health (MOH) and other government agencies in Malaysia as they seek options to strengthen the Malaysian health system—transforming health system functions such as governance, financing, and service delivery in an equitable, efficient, effective, and responsive manner to improve health outcomes, financial risk protection, and user satisfaction.

This Report represents the final deliverable for Phase I of MHSR, which has focused on producing a comprehensive, rigorous, and evidence-based analysis of the Malaysian health system. The results of the analysis have been used to develop a set of reform recommendations for policymakers to consider.

The analysis contained in this report has been carried out through a collaborative effort between the Harvard Senior Advisory Team and a team of senior officials, researchers, and analysts in the Ministry of Health and related agencies. MHSR uses the Harvard framework for health system analysis and reform, which entails an iterative process of: (i) assessing health system performance according to final and intermediate outcomes; (ii) diagnosing causal factors underlying performance problems; and (iii) identifying reforms that strengthen health system governance, financing, service delivery, and payments in order to address these causal factors. The results of the analysis and key recommendations are summarized below. The full analysis of health system performance (steps [i] and [ii]) is detailed in the companion report, "Malaysia Health Systems Research Strategic Plan Report (The Report): Contextual Analysis of the Malaysian Health System" [1].

2. Health System Performance: Ultimate Outcomes

2.1. Population Health Outcomes

Since independence, the Malaysian health system has achieved remarkable outcomes in improving the health status of the population. Most notably, life expectancy at birth—which was already high for a developing country—has increased by more than 10 years. This increase in life expectancy has been driven by rapid declines in infant, child, and maternal mortality. Outcomes for once common communicable diseases, such as malaria, have also improved considerably. Among middle-income countries, Malaysia performs better than average on these measures. However, over the past 15 years, the declines in maternal and child mortality rates have plateaued, with no further notable improvement.

At the same time, Malaysia has performed less well compared to middle- and high-income comparator countries in improving life expectancy of the adult population. This relatively sluggish improvement in

adult life expectancy reflects a high and growing burden of non-communicable diseases (NCDs), which the health system has not been able to adequately manage with its existing design and resources.

It is important to note that while overall health outcomes have been improving for all segments of Malaysian society, there are persistent inequalities related to ethnicity and socioeconomic status. Chinese Malaysians consistently achieve better health outcomes—both in terms of morbidity and mortality—compared to Malays, other Bumiputera, and Indian Malaysians.

2.2. Financial Risk Protection

A key strength of the Malaysian health system is its success in providing broad and meaningful protection from the financial risks associated with the high cost of health care. This undoubtedly important success is achieved through a geographically widespread public delivery system, which offers equitable and universal access to a wide range of services at minimal out-of-pocket cost. Reflecting this strong financial protection, the incidences of catastrophic and impoverishing health expenditures in Malaysia are among the lowest observed among all middle-income countries worldwide. While out-of-pocket spending contributes a considerable share of health financing in Malaysia (36 percent), the fact that all citizens have the option to seek highly subsidized care in the public sector means that this out-of-pocket spending does not translate into financial risk for the population using health services. Nonetheless, out-of-pocket expenditures are a suboptimal source of financing for health care because they do not achieve the benefits (both in terms of economies and financial risk protection) of pooled financing.

2.3. User Satisfaction

Malaysia's universal, low cost health system is greatly valued by the population. Both national surveys, such as the National Health and Morbidity Survey (NHMS), and user exit surveys indicate high levels of satisfaction with both public and private services. However, there are aspects of the system that people are less satisfied with, including process-related quality (such as waiting times, availability of a private room, or choice of doctor) in the public sector, and the cost of healthcare services in the private sector. As incomes rise and expectations grow, dissatisfaction with the levels of service quality offered in the government system is likely to increase.

3. Health System Performance: Intermediate Outcomes

3.1. Access and Utilization

Malaysia's mixed healthcare delivery system, which includes government and private healthcare providers, ensures reasonable levels of physical access to healthcare services for the majority of the population. Nonetheless, some gaps exist—especially for more technologically advanced services and comprehensive primary care. Private providers—which make up 69 percent of outpatient clinics and 26 percent of acute hospital beds—tend to cluster in urban areas. Furthermore, government health expenditures are also not evenly distributed across states. Together, these two factors contribute to an overall distribution of healthcare resources that is skewed toward more densely populated regions.

Utilization of healthcare services in Malaysia remains relatively low compared to the rates of utilization seen in most high-income countries (an income status Malaysia aspires to), although the level of admissions is comparable to rates seen in some high-income countries, despite Malaysia's younger population. As Malaysia develops further, utilization will likely increase, putting pressure on the capacity of the health system and increasing expenditures.

Patterns of public and private utilization are influenced by socioeconomic status, with richer Malaysians more likely to seek care in the private sector. Nonetheless, even the poor receive a substantial share of care particularly outpatient care—from private healthcare providers.

3.2. Quality: Effectiveness and Comprehensiveness of Care

Analysis conducted as part of MHSR indicates that the quality of care delivered in both public and private healthcare facilities in Malaysia is good.

On technical measures of clinical quality (for example, whether the correct medicine was prescribed and appropriate advice given), public clinics slightly outperformed private clinics. However, the health system performs less well in providing comprehensive care that meets the full health needs of the population given the evolving burden of disease and ageing population. This is especially true for management of NCDs. Failure at the population level to effectively diagnose and manage NCDs in both public and private outpatient settings, and suboptimal continuity of care between primary, secondary, and tertiary levels have contributed to high rates of admissions due to chronic conditions such as asthma and diabetes mellitus. Around 15–20 percent of hospital admissions are for conditions that should be effectively managed through ambulatory care, reflecting suboptimal performance of the health system as a whole, with implications for health outcomes as well as efficiency.

3.3. Quality: Responsiveness

Responsiveness refers to the degree to which healthcare services meet the needs and expectations of patients in a 'patient-centered' manner. While Malaysians perceive the overall quality of care in both the public and private sectors to be high, aspects of the patient experience could be improved. For example, many citizens are dissatisfied with the lack of provider choice offered in the public sector, and most patients at public clinics do not have a regular doctor whom they consult for their healthcare needs. Waiting times and limited hours are also a source of dissatisfaction, and impose high opportunity costs on patients accessing care in the public sector. These factors may discourage patients from seeking care when they do not face an acute need, a pattern which is observed in the analysis of service utilization.

3.4. Efficiency

Efficiency of a health system can be evaluated along multiple dimensions. In terms of macro-level efficiency, the Malaysian health system achieves slightly better than average health outcomes relative to its income level and health spending, which—at 4.0 percent of Gross Domestic

Product (GDP)—is still relatively low compared with other middle and high-income countries.

However, in terms of allocative efficiency—whether resources are directed to the right mix of activities in the health system to produce the best possible outcomes—Malaysia could make improvements. In particular, there is a growing trend toward excessive spending on secondary and tertiary care services relative to primary care, a pattern which likely contributes to higher costs and worse health outcomes. Furthermore, almost no resources are devoted to long-term care in Malaysia, and there is evidence to suggest that the resulting burden of long-term care falls on secondary care facilities, at a high cost to the system. Analysis is ongoing to assess the technical efficiency of the Malaysian system—whether outputs are produced at the lowest possible cost. Preliminary analysis suggests that the degree of technical efficiency varies across types of facilities in the public sector, indicating potential for improvement.

4. Emerging Opportunities and Challenges

4.1. Demographic and Epidemiological Transitions

Although Malaysia's health system has remained remarkably stable over the past five decades, the broader context has changed dramatically. By 2020, Malaysia will be an 'ageing' society, with seven percent of the population aged 65 years or older, and will progress soon after to an 'aged' society, with 14 percent of the population aged 65 or older. Similarly, urbanization has taken place remarkably rapidly, with profound effects on the health and wellbeing of Malaysian society.

These demographic transitions have contributed to another rising trend: the increasing prevalence of NCDs. While in 1990, NCDs accounted for 60 percent of the burden of disease in Malaysia, as measured by Disability Adjusted Life Years (DALYs) lost due to premature death and morbidity, by 2013 this share had increased to 72 percent. Over the nine-year period from 2006 to 2015, adult prevalence of diabetes mellitus increased more than 50 percent (from 11.6 percent to 17.5 percent of the population aged 18 years or older), while the prevalence of hypercholesterolemia more than doubled (from 22.9 percent to 47.7 percent). The prevalence of hypertension, which fell from 37.7 percent in 2006 to 30.3 percent in 2015, is still high by international standards. Moreover—and of particular concern for the future burden of NCDs—98 percent of adults have at least one risk factor for NCDs (such as smoking, unhealthy diet, or physical inactivity), and a large proportion of the population has multiple risk factors. These high risk levels suggest that the NCD burden will likely remain high in the future, with consequences for health outcomes as well as health system costs.

4.2. Cost Growth

Malaysia's healthcare spending, while still relatively low both in absolute terms (US$ 938 in purchasing power parity terms in 2013) and as a share of GDP (4.0 percent in 2013), has been rising over time. Less than 20 years ago, in 1997, health expenditures were only 2.7 percent of GDP. Technological change, rising incomes, and demographic and epidemiological

change all contribute to increasing costs and expenditures. These pressures will continue to grow in future, further increasing expenditures. While changes to service delivery and financing mechanisms can allay these pressures to some degree, it is inevitable that spending on health care will continue to increase.

4.3. Opportunities

The growing private healthcare sector in Malaysia also presents important opportunities. Health care is a dynamic sector of the economy. With a supportive policy environment, Malaysia can harness growth in areas such as medical tourism, pharmaceutical research and development, medical device manufacturing, health information technology, and telemedicine, among others. Health system reform also presents an important opportunity for the government to respond to citizen demands and increase satisfaction with public services.

5. Diagnosing Causes of Health System Performance

The key health system performance issues identified by the analysis undertaken as part of MHSR are:

- **Widening gaps in health outcomes** in terms of slowing rates of improvement in maternal and child health, limited improvement in adult life expectancy, a rising burden of NCDs, and high levels of avoidable premature deaths;
- A future trajectory of **rising expenditures**;
- **Potential for worsening financial risk protection** as costs rise if private healthcare expenditures are not pooled;
- **Dissatisfaction** related to aspects of service quality and responsiveness in the government system;
- **Emerging access problems** related to the uneven distribution of resources and a relative lack of access to comprehensive primary health care (clinics with a full complement of on-site laboratory, radiology, and pharmacy services) required to manage and treat NCDs;
- **Inadequate management of NCDs** at the population level, as evidenced by the rapidly rising prevalence of NCDs, high share (more than 50 percent) of the population with NCDs not diagnosed, and 98 percent of the population with at least one risk factor for NCDs; and
- **Allocative and technical inefficiencies,** for example with resources concentrated toward hospital-based care and slower growth in health expenditures for primary health care relative to secondary and tertiary health care.

The Malaysian health system is a 'mixed' system with public and private financing and health service provision and distinct governance, organization, financing, and payment arrangements for each sector. The public sector is based on a 'National Health System' model of government-organized health care financed through general revenues, with historical line-item budgets and a salaried staff made up of civil servants. On the private side, a mix of healthcare providers operate under a light regulatory regime, earning revenues primarily through fee-for-service, out-of-pocket payments by patients, and

increasingly also through private insurance. These arrangements contribute to the system-level performance outcomes observed through a number of supply and demand-side factors, which interact with each other.

On the **supply side**, we identify the following causal determinants of performance:

- **Relatively low levels of public spending** on health care, which partly contribute to slowing improvement in population health outcomes and demand for private services;
- **Suboptimal provider payment mechanisms** in both the public and private sectors: In the public sector, line-item budgets do not allow for flexibility in resource use at lower levels, while salaries provide weak performance incentives. In the private sector, fee-for-service payment can contribute to overtreatment due to 'supplier-induced demand';
- **Uneven distribution of resources** across public and private services related to organizational and institutional factors;
- **Ineffective continuity and coordination** of care for patients;
- **Rigid management structures in the public system,** which provide weak capacity and incentives for performance improvement.

On the **demand side**, causal determinants of performance include:

- Variable **physical access to comprehensive primary health care services,** especially for management of chronic illness;
- Low levels of **health-producing behaviors** among the population, which could be influenced both through public health as well as clinical interventions (such as screening and counseling);
- Limited **awareness of need** for health care, in particular for screening services and preventive care;
- **Financial barriers** which likely impede many Malaysians from accessing higher service quality in the private sector;
- **Quality perceptions,** particularly related to service quality, which drive demand for private services.

6. Strategic Options for Malaysia's Health System

A strategic plan for transforming Malaysia's health system must be based on a vision of the future directory. Furthermore, Malaysian leaders are committed to preserving the pluralistic nature of Malaysia's healthcare delivery system, which means that a future health system will need to purchase care from both public and private providers. The future health system must also be consistent with the vision of the Malaysian government and citizens for inclusive growth, embodied within the Malaysia Plans.

Malaysia's goals and our performance assessment of the health system lead us to conclude that Malaysia's future direction should be to develop over time a universal social health insurance system, starting with a voluntary health insurance scheme, which will combine both tax and contributory financing, and a strong purchaser which could contract with public and private providers.

Social health insurance should finance a wide range of public health, personal prevention, and outpatient and inpatient curative care, as well as associated social support services. We envisage the development of integrated provider networks, with significant new use of technology and payment mechanisms that provide incentives for high-value health care.

Transitioning to a health system financed through a mix of tax funding and social insurance, which provides universal access to enhanced primary health care, will require many systemic changes, including:

- Establishing a financially sound and well-managed health insurance organization;
- Developing a purchasing mechanism that is fair, transparent, and which provides a level playing field for both government and non-government service providers;
- Reforming the Ministry of Health administrative, management, and service delivery structures, including greater decentralization, and institutional reforms allowing public service providers to enter into service-level agreements or contracts;
- Improving the content of services provided and the skill mix in primary health care to better manage the current and emerging disease burden, and better coordinate care of patients across primary, community, and hospital care; and
- Educating and engaging the public to ensure efficient and effective use of an evolving health system.

These are fundamental but necessary changes to the health system, which cannot be achieved overnight, especially given the Malaysian government's current fiscal position and priorities. However, more incremental steps can be taken over the next three years, which will set in place important building blocks for the eventual transition to universal social health insurance. Specifically, we recommend two short-term policies: a new, publicly managed, non-profit voluntary health insurance scheme, and public organizational change to improve service delivery through enhanced primary health care.

These short-term strategies must be carefully designed as intermediate steps toward the long-term transition envisaged. Introducing new public programs generates strong interest groups; over time, the positions of these interest groups become entrenched, and it grows increasingly difficult to change direction. Given the 'path dependent' nature of reform, the details of the proposed financing and delivery interventions must be carefully calibrated to reflect Malaysian context and to ensure consistency with long-term goals.

6.1. Recommendation 1: Non-Profit Voluntary Health Insurance

The Minister of Health has proposed the introduction of a voluntary health insurance (VHI) scheme, in which the Malaysian government will establish a quasi-governmental, non-profit insurance organization that will pursue the public interest, not profit. Our analysis supports this proposal. The VHI scheme will mobilize private health expenditures into a better-organized form of healthcare financing,

and the VHI organization will play an active role as a purchaser of efficient and effective services from private—and over time public—providers.

Potential benefits of VHI include decongesting the public sector by giving beneficiaries the option to receive private care, serving as a benchmark for private insurance products and private sector payment rates, and providing an alternative source of group health insurance for large employers.

The scheme would be voluntary, and could initially target groups such as migrant workers, employees of government-linked companies (GLCs), civil servants, and large private employers. We also recommend that the government provide targeted subsidies for the voluntary inclusion of a subset of low-income Malaysians, for example BR1M beneficiaries. This inclusion will establish within the scheme the principles of equity and solidarity that will be critical for eventually transitioning toward a social health insurance system. If low-income Malaysians are not included early on, VHI presents the risk of establishing a two-tiered health system. Detailed plans for targeting subsidies can be established as part of MHSR Phase II. The plan of gradually introducing different beneficiary groups must also address the risk of adverse selection, which can cause voluntary health insurance schemes to financially unravel if only unhealthy individuals select coverage.

The Report outlines a two-year plan for the design and implementation of VHI. In Phase II of MHSR, the Harvard Team will provide research and technical support for the detailed planning of VHI implementation. This research and technical support will involve:

- Planning for benefits package design and premium determination;
- Assessing the impacts of VHI on workloads and additional income to public facilities;
- Planning to establish VHI organization;
- Assessing the role of VHI in a longer-term transition.

Implementation of VHI could begin in 2017, including establishing the necessary governance structures, management, and operational systems. This would allow for the VHI scheme to enroll beneficiaries by 2018.

6.2. Recommendation 2: Organizational Change to Improve Service Delivery

Our second recommendation is to design a series of demonstration projects to reform MOH healthcare service delivery, with the objective of transitioning toward a primary care-centric health system offering comprehensive ('enhanced') primary health care. The proposed new model of enhanced primary health care will be an effective platform for not just improving health outcomes, strengthening financial risk protection, and narrowing equity gaps, but also for improving the responsiveness of the health system and achieving higher user satisfaction. The four main features of effective primary health care are:

- First contact access for each new patient need *(first contact function)*;

- Long-term person-focused care, which is ongoing care for the person and not just the short-term duration of a disease *(continuity function);*
- Comprehensive care for most health needs *(comprehensiveness function)*; and
- Coordinated care, by which primary care acts to coordinate access to other services the patient needs *(coordination function)*.

We recommend that Malaysia invest in developing enhanced primary health care—an improved model—which will require changes in the organization of MOH healthcare service delivery, financing (including greater resource allocation to primary care), and provider payment systems, as well as institutional change to strengthen the stewardship function of the MOH. Given the complexity and context-specific nature of these changes, we propose multifaceted and phased interventions in demonstration sites to develop and test the enhanced primary health care model. These demonstration projects will allow for iterative design and adaptation based on comprehensive monitoring and evaluation.

At demonstration sites, public clinics would be rebranded as 'Family Health Centers,' with clinical staff organized into Family Health Teams. These teams would have responsibility for a defined patient population and would be paid through a mix of capitation (fixed payments per registered patient), performance-related pay tied to specific targets and quality criteria, and some fee-for-service payments for providing specific services. The demonstration projects will include analysis to inform performance targets and payment rates. Eventually, private providers could also be accredited as Family Health Teams, with the Ministry of Health purchasing services from these providers on behalf of patients.

Comprehensive and robust health information systems will characterize the enhanced primary health care model to provide real-time data for clinical management, payment, and performance management. These health information systems, which will be available in the demonstration sites as part of ongoing MOH efforts to strengthen health information systems, will be integrated into a comprehensive monitoring and evaluation framework.

In Phase II of MHSR, the Harvard Team will continue with research to provide support, analysis, and planning for the design of demonstration projects, in collaboration with a Change Management Team to be established within the Ministry of Health. Critical steps will include, among others:

- Identification of demonstration project sites;
- Introduction of regulatory changes needed to facilitate the introduction of strategic purchasing and contracting, new payment mechanisms, accreditation, etc.;
- Development of a detailed implementation plan;
- Agreement on the scope of services to be provided and estimation of costs;
- Design of provider payment mechanisms, including setting payment rates;
- Development of guidelines, care pathways, and referral and counter-referral systems;

- Development and implementation of health information systems and a monitoring and evaluation framework.

7. Conclusion

Malaysia's health system is at a crossroads. The system has very effectively countered the health challenges it was designed to address, namely high levels of maternal mortality, infant mortality, and under-five mortality, and has achieved excellent outcomes. But the health system faces new challenges in the face of a rapidly evolving context—characterized by demographic and epidemiological transitions, a shifting socio-cultural environment, technological changes, and rising income levels, which have contributed to a nutritional transition, increasing health risks, and new user expectations. In effect, Malaysia demonstrates a classic case of *asymmetric transition*, where the rapid transitions in context have not been matched with a corresponding transition in the health system to better address the current and future needs of the population.

However, in many ways Malaysia is well-positioned to transform its health system to meet current and future needs. The healthcare infrastructure is in place, health human resources are available, and health spending is still relatively low, making further investment possible. The population has high levels of human capital with good technological literacy. While transformative change cannot be achieved overnight, Malaysian policymakers would be wise to implement stepwise innovations which will strengthen the Malaysian health system in order to more effectively address population needs and changes in the national context.

1. Introduction

1.1. Objectives of the Report and Context of MHSR

Malaysia Health Systems Research (MHSR) is a collaboration involving the Government of Malaysia and Harvard University. MHSR includes senior faculty from the Harvard T.H. Chan School of Public Health (investigators: Prof. Rifat Atun, Prof. Peter Berman, Prof. William Hsiao), a Harvard Senior Advisory Team and Research Team ('Harvard Team'), as well as senior officials and a team of researchers and analysts convened by the Ministry of Health ('Team Malaysia').

The Malaysian government aims to build on the strengths of the country's existing health system, and to develop a sustainable system that is equitable, efficient, effective, and responsive to citizens needs by strengthening financing, delivery, and governance mechanisms to adapt to the rapidly changing context. MHSR contributes to this aim with the objective of developing a clear and comprehensive strategic plan for Malaysia's health system transformation, including a technically sound reform design and a plan for reform implementation.

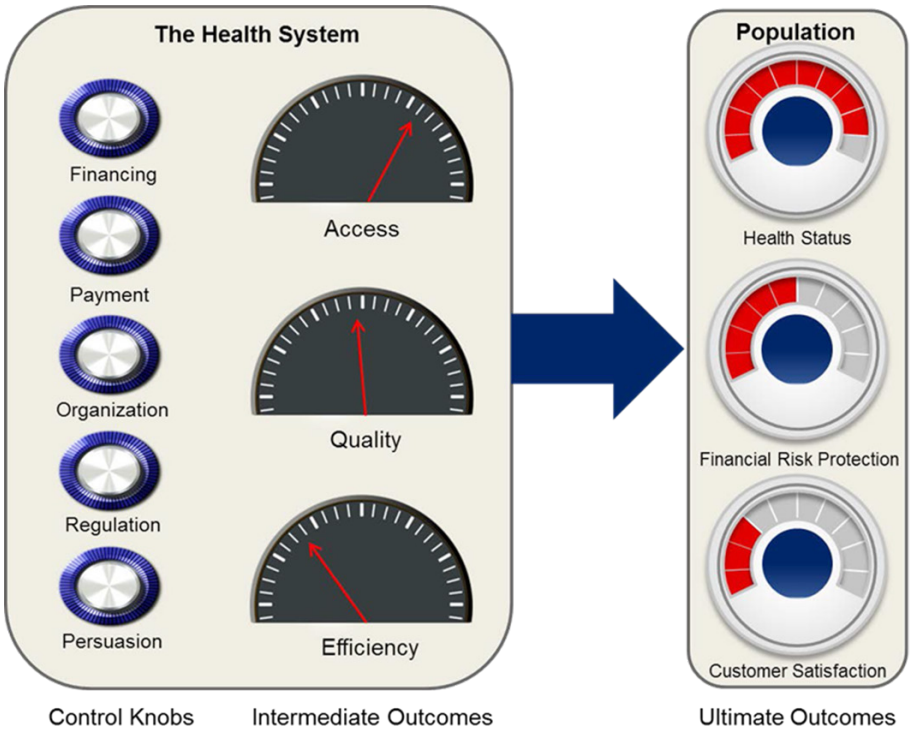
This report represents the final deliverable for Phase I of MHSR. Phase I has involved a comprehensive, rigorous, and evidence-based analysis of the Malaysian health system, and—based on this health system assessment—the development of a strategic plan for health system strengthening. This report presents strategic reform options for the Malaysian Health System with recommendations for change, while the companion report, "Malaysia Health Systems Research Report (The Report): Contextual Analysis of the Malaysian Health System," summarizes the key findings from the Phase I analysis [1].

In the second phase of MHSR (April 2016–December 2016), the Harvard Team will provide research, analysis, and technical support to develop a detailed reform design and an implementation plan, along with initial advice regarding the implementation activities. Implementation of some reform components may begin during Phase II.

The health system analysis that informs the recommendations in this report is the product of a comprehensive collaborative effort between the Harvard Team and Team Malaysia (see Appendix 1). The research collaboration involved 23 'Analytic Teams,' with consistent involvement of Malaysian researchers in the design, data collection, and analysis of research presented here. The collaborative design of MHSR, while producing one of the most comprehensive simultaneous assessments of any national health system to date, has also contributed to capacity building for evidence-based health system research within the Malaysian government. The contributions of all team members from both Team Malaysia and the Harvard Team are gratefully acknowledged.

MHSR uses a health system analysis framework developed by Harvard researchers that enables rigorous, consistent, and objective analysis of health system performance (Figure 1) [2]. The framework

Figure 1. The Harvard Framework for Health System Analysis and Reform [2]



and its variants have been used in analysis of numerous countries worldwide, including Turkey, China, Uganda, and India, among others [3, 4].

1.2. Brief History of Malaysia's Health System

The Malaysian health system is widely regarded internationally as a relatively successful health system model. The World Health Organization's health system review of Malaysia reported that "Malaysia has achieved impressive health gains for its population with a low-cost healthcare system that provides universal and comprehensive services…" [5]. This recognition reflects the well-documented progress Malaysia has made in extending average life expectancy at birth, especially through successful control of communicable diseases and improvements in maternal and child health. Malaysia is also recognized for achieving relatively low total health expenditures while ensuring a high level of universal access and strong and equitable financial protection from high health care costs.

Despite its many positive accomplishments in health, the Malaysian government has been exploring options for improving the health system since the early 1980s. As Malaysians live longer and the nation grows more prosperous, citizen expectations have risen. Increasingly, Malaysian leaders see on the horizon a future of growing health expenditures that will be needed to sustain equity while expanding the scope and quality of services. The Government of Malaysia maintains a strong pro-growth orientation with rigorous fiscal discipline. As is the case in most upper-income and developed countries, the

government is wary of large future fiscal obligations for health expenditures that could arise in a predominantly tax-financed health system with a large government-owned and government-operated healthcare delivery system, as this system expands to meet future health needs.

Over the past 30 years, beginning with the Health Sector Financing Study by Westinghouse Health Systems (1984–85) [6], which called for a transition toward universal, compulsory social health insurance, the Malaysian government has commissioned at least seven major reports on health system reform. During this period, various incremental policy changes were introduced to increase the role of the private sector in health service provision while diversifying sources of health system financing. As part of the transition to create a health system with pluralistic financing and health service provision, the government has encouraged private investment, contracted out several health system activities—such as drug distribution and hospital support services—to the private sector, and corporatized the National Heart Institute [7]. On the financing side, several policies were introduced to enable citizens to use up to 10 percent of their Employee Provident Fund savings for medical expenses, provide tax breaks for the purchase of private health insurance, establish the Medical Assistance Fund, and mandate a new Health Insurance Coverage Scheme for Foreign Workers (SPIKPA) [7]. Beginning in 2004, a pilot system of permitting 'full-fee paying patients' in public hospitals was introduced to generate additional revenue for public hospitals [8]. The scheme also provides additional remuneration for senior doctors who might otherwise leave public service in order to practice in the private sector, which offers much higher income potential.

Despite this long history of health policy deliberations and incremental changes, the Malaysian government has not introduced comprehensive health system reform. The latest health system reform initiative, '1Care for 1Malaysia,' would have created a universal health insurance system. The initiative was developed by the Ministry of Health (MOH) as part of the 10th Malaysia Plan (2011–2015) and received approval from the Prime Minister's Office, but was ultimately not taken forward due to a vocal opposition campaign that emerged after an early draft of the 1Care concept paper was leaked to media [7].

As Malaysia stands at the cusp of becoming a high-income nation, it has the opportunity to strengthen the health system by enhancing organization, financing, and health service provision, building a future health system that would continue to deliver the equitable universal access to healthcare services and strong financial risk protection that are so valued by the population. A stronger health system would not only enable Malaysia to respond to emerging challenges and opportunities, but also help the government to meet the increasing expectations of citizens.

1.3. Long-Term Vision for Malaysia's Health System

The long-term vision of a nation's leaders and citizens is a crucial basis for defining health system transformation. While a variety of changes are possible, not all will lead in the same strategic direction, and indeed initial choices may affect future options and pathways for reform.

We carried out extensive consultations with senior

officials, political, economic, and health system leaders in Malaysia, who broadly envisage a future Malaysian health system that would meet the health needs of all Malaysians in ways that would be effective, efficient, equitable, responsive, and sustainable. Effectiveness indicates that the system achieves the outcomes it is designed to achieve. Efficiency relates to macro-level efficiency (spending an appropriate amount on health in relation to a country's level of development), allocative efficiency (ensuring that resources are allocated to the right areas and interventions), and technical efficiency (delivering services at low cost and without waste). Equity signifies that all Malaysians would benefit without distinction by ethnic, socioeconomic, or other individual and group characteristics. Responsiveness relates to the ability of the health system to meet the legitimate expectations of citizens. Finally, sustainability refers to the overall affordability of the system, given that Malaysia's ability to pay for health care, while likely to grow in the future, will not be infinite.

Malaysia's national development strategy—as documented in the Malaysia Plans—is predicated on a vision of inclusive growth. Malaysia's leaders recognize that in a diverse nation, policy must be designed to promote inclusivity and solidarity between the country's ethnic groups. When compared with other upper middle-income countries, Malaysia has thus far established a relatively equitable health system with regard to financing and maternal and child health outcomes—an important success that any future health system reform should build upon. We have therefore developed short-term and long-term options and recommendations that emphasize equity, providing essential health benefits for all Malaysians—both rich and poor and across all ethnic and social groups.

In addition to inclusive growth, there are two other stated strategic long-term goals that the future Malaysian health system must satisfy. The first is to protect the momentum of future economic growth by not overburdening public budgets and tax revenues. The second is to sustain Malaysia's commitment to a pluralistic economy with a vibrant private sector. Over time, Malaysian policies have encouraged private sector delivery of health services, including investment of public funds in private healthcare institutions.

These goals have significant implications for the future development of Malaysia's health system and steps toward achieving its long-run vision. The first goal—limiting the extent of general revenue tax financing of health care—implies that Malaysia must develop a health system that is at least partially contributory, with sources of healthcare financing based on contributions from individuals, employers, and entities other than the federal government, although these contributions could be combined with some earmarked, special purpose taxes. The second goal—pluralistic delivery—implies that both government and non-government service providers, for-profit and non-profit, must be sustained and financed in a fair way in a future health system. This pluralistic delivery approach will enable the available assets of the country to be used effectively.

Malaysia's goals lead us to conclude that the country's future direction should be to develop (i) a universal *social health insurance system*, which will combine both tax financing and direct financial contributions from citizens and other entities; and (ii) a

health system that is underpinned by enhanced primary health care to effectively manage current and future health risks and diseases, especially chronic illness. Changing the mode of financing alone will not benefit the health of the population, ensure efficient and effective expenditures, or guarantee sustainability.

A *social health insurance system* with a strong healthcare delivery system based on enhanced primary health care would provide three key benefits: (i) it would ensure the long-term financial sustainability of Malaysia's health system by diversifying sources of health financing; (ii) it would enable the government to inclusively target its general tax revenues more effectively to poor and disadvantaged groups; and (iii) it would create an alternative to rapid growth of private for-profit health insurance by establishing a strategic purchaser to effectively allocate health expenditures by buying services from both public and private healthcare providers.

Our recommendations are in line with the stated goals of the Malaysian government of inclusive growth, limiting the extent of general revenue tax financing of health care, and pluralistic delivery, and follow directly from these goals in several important respects. First, mandating specific additional household contributions for health care through the existing general tax system will be difficult to separate from other general revenue allocation decisions and will be perceived by citizens as simply 'higher taxes.' A key principle of social insurance, however, is that contributions, even when collected through the same administrative mechanisms used for general income or other taxes, are linked to a specific set of benefits. This is one key feature that distinguishes social health insurance from simply expanding general tax financing.

Second, the goal of financing both government and non-government healthcare services in an integrated system would be difficult to execute through the existing government structures without additional financing. The government currently lacks effective mechanisms to negotiate prices and set quality standards when purchasing services from private providers or suppliers. In theory such mechanisms can be developed, but our analysis in Malaysia suggests this will be very difficult to do given the rigid procurement rules. Establishing a quasi-governmental non-profit insurance, as described in Section 2, can provide the funds to create a strategic purchasing function and help achieve government goals. Earmarked contributions to a new insurance organization will generate new resources that can be linked to a specific entitlement for all Malaysians and ring-fenced from claims on general government tax revenue; at the same time, a new insurance entity can be designed to allow purchasing from both government and non-government providers, thereby ensuring pluralistic delivery.

We add two further stipulations. First, the health system must be strengthened to develop enhanced primary health care to effectively and efficiently manage current and future health challenges. International evidence suggests that health systems financed through social health insurance schemes perform better when emphasizing enhanced primary health care to improve health outcomes, promote equity, and ensure sustainability.

Second, based on international experience, we

recommend that Malaysia should not channel new government financing to further develop a competitive for-profit private insurance system. Experience in several countries, particularly the United States, Chile, and Australia, shows how development of private for-profit insurance leads to much higher administrative costs and other types of inefficiencies and inequities compared to well-managed social health insurance systems. It is important to note the qualification that social health insurance systems must be "well-managed". Insurance is a complex undertaking, and health insurance especially so.

The inefficiencies inherent in private health insurance systems relate to a number of 'market failures' predicted by economic theory and borne out by international evidence from such systems. Some of the consequences of market failures in private health insurance markets include, among others: *adverse selection* (the tendency for only sicker patients to purchase insurance, driving up premiums); *risk selection* (insurer incentives to engage in 'cream skimming' of healthier members, for example by excluding the aged and people in poor health); *market concentration* due to high capital requirements and sophisticated technical knowledge needed to manage insurance; *moral hazard* (the tendency for consumers who do not face out-of-pocket costs to demand more care); and *supplier-induced demand* (the incentive for suppliers to provide and bill for unnecessary health services, when the insurer cannot adequately distinguish between necessary and unnecessary care).

Private health insurance systems also tend to produce unequal access to quality health services for the population, because affluent people can afford better private insurance while the poor cannot. Furthermore, in private health insurance systems, the risks of healthy and less healthy people in a community are not pooled; those with existing health problems often risk being excluded from good-quality care, or must pay very high premiums for health insurance.

There are many steps needed to transition from Malaysia's current dual system, with separated government and private health financing and delivery, to an integrated system as described above. Many specific elements of the design of the future system, such as the level and channels of financial contributions from different groups of citizens, the organizational structure of health insurance, and the development of more integrated service delivery models, will need to be designed based on Malaysia's specific context. This is a process that will play out over a decade or more, building on the notable strengths of the existing health system. Among a large number of changes that need to be introduced, we would emphasize the following:

- Establishing a financially sound and well-managed non-profit health insurance organization, from which Malaysian citizens can voluntarily purchase insurance as an alternative to private health insurance plans;
- Developing a strategic purchasing mechanism that is fair and transparent for both government and non-government service providers;
- Strengthening the health system to be centered on enhanced primary health care;
- Reforming the Ministry of Health governance,

management, and service delivery structures, including greater decentralization, and creating mechanisms that enable public providers to receive payments and to attract patients in a pluralistic healthcare market;

- Educating the public to ensure efficient and effective use of the health system and creating an environment which promotes healthy lifestyles.

As we write this report, we are aware that economic conditions in Malaysia are not propitious for a 'big bang' reform of the health system, which would be costly and potentially disruptive, and we are also aware of the pending possibility of a reduced government health budget [9]. We also note that Malaysia's current government institutions would need additional technical expertise and capacity to manage, implement, and monitor many important new elements of the envisioned future health system.

While the timing and preparatory conditions may not be right for a comprehensive reform reaching all Malaysians in the near term, we also note that these same conditions may make some elements of the reforms proposed more acceptable to key stakeholders. In times of economic stress, private providers may welcome some additional funding for their services. Government providers may also benefit from opportunities to compete for new sources of revenue. And gradual implementation provides time for learning and capacity development, which in our view are also needed.

For the reasons above, we recommend that Malaysia consider implementing a two-pronged short-term strategy which will move the system significantly toward the longer-term vision, while also providing time and opportunity to demonstrate progress and learn how best to implement reforms needed to reach Malaysia's goals.

This two-pronged strategy, to be implemented over the next three years, includes:

- **Non-Profit Voluntary Health Insurance (VHI):** Implementing a significant non-profit, voluntary health insurance scheme that can pool government tax and contributory finances, and create a strategic purchasing mechanism for both government and non-government service providers. This proposal was conceived of by the Minister of Health. The Minister asked the Harvard Team to objectively assess this proposal and determine its feasibility and technical design as part of MHSR;

- **Reform of Service Delivery with the Development of Enhanced Primary Health Care:** Implementing a significant demonstration of an 'enhanced' primary health care model (where 'enhanced' means incorporating public health, primary care, and social support service delivery as part of a 'network' linked to appropriate secondary and tertiary hospital services). This demonstration will lay the groundwork and produce lessons that can inform eventual reforms of Malaysia's current Ministry of Health service delivery structures, as well as future reforms of the delivery system at the secondary and tertiary level.

The two proposed strategies, introduced simultaneously, will immediately address some of the health system weaknesses identified. Inadequate funding,

inefficient out-of-pocket financing, allocative inefficiency, weak incentives, and suboptimal responsiveness will be addressed primarily through nonprofit voluntary health insurance and the creation of a contracting/purchasing function and reform of service delivery. The reform of the service delivery model focusing on a new enhanced primary health care model in the public system will concurrently address Malaysia's epidemiological transition, inequities in health outcomes, and the problems experienced with effectiveness and efficiency of care delivery. It will also improve the first contact, continuity, comprehensiveness, and coordination functions of primary health care, thereby improving patient experience and health outcomes.

Furthermore, these two interventions will be synergistic and complementary. Innovation and reform on the delivery side will harness high capacity provider networks from which a public insurer could purchase services. The voluntary health insurance and eventual social health insurance system should purchase health services delivered by both government and private providers, ensuring equitable access for all Malaysians to good quality services, citizen satisfaction with services, and protection against health-related impoverishment. Financed services should include a wide range of public health, personal prevention, and outpatient and inpatient care, as well as associated social support services. The new service delivery model will be centered on strengthened and enhanced primary health care with significant new use of technology, reflecting Malaysia's long history of commitment to and successes in primary care.

These short-term strategies must be carefully designed as steps toward the longer-term transition envisaged. International experience suggests that introducing new public programs generates strong interest groups; over time, the positions of these interest groups become entrenched, and it becomes difficult to change direction. Given the 'path dependent' nature of health system reform, the details of the proposed financing and delivery interventions must be carefully calibrated to ensure consistency with long-term goals, particularly inclusivity. Some of the short-term strategies discussed will initially benefit some population groups more than others (for example, VHI in initial stages will only target certain groups). While this phased targeting may be required to ensure the political and administrative feasibility of the change process, careful design and strategic communications will be required to ensure that the short-term implementation of these strategies does not become a barrier to longer-term goals.

To summarize, we outline several broad options that Malaysian policymakers can pursue: (i) maintain the status quo; (ii) preserve the current health financing and delivery systems, but provide additional budgetary support; and (iii) strengthen financing and delivery systems through a combination of the strategies described in more detail in Sections 2 and 3 below. The potential benefits and risks of these options are briefly summarized in Table 1.

Table 1. Strategic Options for the Malaysian Health System

Strategic Options	Potential Benefits	Disadvantages and Risks
1. Status quo	• No immediate budgetary commitment required • Avoids technically complex and potentially contentious reforms	• Further stress and divergence in health system performance, both levels and equity • Future rising costs to manage higher disease burden
2. Preserve current financing and delivery systems, but with additional budgetary support	• Less political capital required to execute	• Requires budgetary commitments which may be infeasible in current fiscal climate • Future sustainability at risk
3. Improve financing and delivery structure, with: a. Financing improvements only: 'Non-Profit Voluntary Health Insurance' (VHI)	• Diversify sources of health financing • Mobilize out-of-pocket expenditures into an organized financing vehicle • Decongest public services • Provide non-intrusive 'benchmark competition' for private insurance industry to put downward pressure on premiums • Additional health insurance choice for private firms • Trial incentives to promote healthy lifestyles	• Gains from decongestion may be dissipated if public sector budget lowered due to subsidies channeled to VHI • Risk of adverse selection if participation is voluntary • Risk of creating a two-tiered health system if inadequate attention given to equity issues raised by VHI
b. Service delivery improvements only	• Comprehensive and high quality prevention and disease management programs, particularly for NCDs • Reduce fragmentation and duplication of services • Decongest hospital and specialty care	• Initial upfront investment needed for demonstration projects • Growing private health insuance market remains inefficient • Greater demand for amenities and service quality through access to the private sector not met • Duplication and fragmentation of service provision between government and private sectors
c. Both financing and service delivery reforms	• As in 3a and 3b above • Synergies as VHI can engage as a 'strategic purchaser' for service delivery (accreditation and contracting of private and public providers)	• As in 3a and 3b above • Significant capacity development required

The strategic recommendations, and their associated benefits and risks, are described in more detail in the following sections. We also describe some of the evolutionary steps that would enable Malaysia to move further toward the longer-term vision over a three to ten-year transition.

2. Recommendation 1: Non-Profit Voluntary Health Insurance

2.1. Background and Concept

Malaysia's health system has achieved excellent levels of access, equity, user satisfaction, and improvement in health outcomes while spending a small share of GDP on health. Nonetheless, in the companion report on contextual analysis of the Malaysian health system [1], we discuss several performance issues in the Malaysian health system that relate to the way that health care is financed. These issues are summarized below, and in the following sections, we discuss how a non-profit voluntary health insurance scheme could address them.

Rising expenditures, combined with limited fiscal space

Malaysia's health expenditures have been increasing faster than the growth rate of GDP, as discussed in Section 5.3.1 of the companion report on contextual analysis of the Malaysian health system [1]. This trend, while not unique to Malaysia, poses serious challenges for maintaining the financial sustainability of the current health system. In the short-term, the government's health budget will continue to come under stress and citizens' out-of-pocket payments will continue to increase. In the medium- to long-term, the government must either increase the share of the budget allocated to health, or transform its healthcare financing system. The steady rise in healthcare costs and expenditures stems from several major factors, including people's rising expectation of health services, ageing, inadequacies in preventing and treating non-communicable diseases, introduction of new expensive medical technologies and drugs, and the growing role of private sector providers and insurers in health care markets.

Controls on public spending in Malaysia can temporarily curb some of these cost-increasing tendencies. However, the pressures for rising health spending emerge in the form of increased out-of-pocket spending and increased financing by private insurance. In addition, those who cannot afford to pay for private care will become increasingly dissatisfied if government services are underfunded.

The Malaysian government is currently operating in a tight fiscal environment, reflected by a declining tax-to-GDP ratio over the past three years and a growing government debt ratio, which has risen from 35.2 percent of GDP in 2001 to 52.7 percent in 2014 (see Section 5.3.4 of the companion report [1]). Policymakers have set a strict ceiling on the government debt ratio, which means that a substantial increase in the government healthcare budget is unlikely in the near term. These conditions imply the need to diversify sources of healthcare financing while developing more efficient mechanisms for purchasing care using both public and private funds.

A growing private health insurance industry, characterized by significant inefficiencies

Private insurance has grown rapidly in Malaysia over the last decade and a half to cover 23.6 percent of

the population according to the latest NHMS data (see Section 5.3.6 of the companion report [1]). However, there is evidence that the private insurance sector is not functioning efficiently and is driving healthcare cost inflation. Private insurers' claims payouts are rising rapidly. A principal cause of this rapid increase in claims is that private insurers act as passive third-party payers rather than effective, active purchasers of healthcare services. This trend suggests that the private insurance business will not be sustainable in the coming years. Furthermore, the administrative costs of private insurers are high, and these costs are passed on to the consumer in the form of higher premiums, which have increased at an annual rate of 12.5 percent from 2009 to 2014.

Private insurance companies also offer the Health Insurance Coverage Scheme for Foreign Workers (SPIKPA), a mandated scheme for certain categories of migrant workers. The SPIKPA scheme offers poor value to beneficiaries as evidenced by low claims ratios. Claims payouts totaled only approximately 10 percent of premium revenues in 2015, according to the Ministry of Health. This reflects not just the large profits private insurers make on this scheme but also the transfer of government resources to private insurers who access heavily subsidized public facilities for SPIKPA members [10]. Loss ratios for other private health insurers are also low at 50–60 percent for the largest insurers.

Significant reliance on out-of-pocket expenditures as a source of financing

Out-of-pocket expenditures finance 36 percent of total health spending in Malaysia, and this share has marginally increased in Malaysia between 2000 and 2013, even as other middle-income countries have reduced their reliance on out-of-pocket spending (see Section 5.3.1 of the companion report [1]). Out-of-pocket spending can expose consumers to financial risks (although Malaysia's health system continues to achieve strong financial risk protection, as described in Section 2.3 of the companion report [1]). Furthermore, out-of-pocket expenditures are an inefficient source of financing insofar as they cannot be used to facilitate efficient purchasing of health services through bulk purchase, negotiation of discounts, or payments linked to performance. Out-of-pocket spending is on a fee-for-service basis, and significant evidence suggests that fee-for-service is the most inflationary payment mechanism for healthcare services.

Dissatisfaction with the personal service quality of the government healthcare services

Malaysian citizens have expressed dissatisfaction with certain process-related aspects of government health services—including choice of doctor, waiting times, the amount of time spent with the doctor, privacy, and comfort. These dissatisfactions are partly caused by inadequate funding of public health services. Given the fiscal considerations summarized above, it is unlikely that the government would be able to fund the costs of providing higher personal service quality or lowering congestion through greater investment in government facilities in order to satisfy patients' rising expectations, while maintaining current levels of access and equity.

Lack of coordination between government and non-government providers

Finally, the use of public and private healthcare services is poorly coordinated, leading to inefficiencies through duplication of services and potential adverse consequences for quality of care. Discussions with healthcare providers and health officials suggest that patients are sometimes transferred to government facilities when their families can no longer afford private care, or vice versa. These transfers may result in duplication of diagnostic investigations as medical records and diagnostic images are not portable.

2.2. Rationale

To address the challenges described in the previous section, Malaysia needs a short- to medium-term strategy to harness private spending—especially out-of-pocket spending—for health care into better organized and efficient financing schemes that would satisfy citizens' demand for affordable, high clinical quality health care, and better personal service quality, while decongesting public services. Meanwhile, this short- and medium-term strategy must serve as the first building block for the long-term financing strategy, so it must be consistent with transforming Malaysia's healthcare financing system toward the long-term vision.

The Minister of Health has proposed a voluntary health insurance (VHI) plan in which the Malaysian government would establish a quasi-governmental, non-profit insurance company that pursues the public interest, not profit. Having reviewed and studied this proposal, the Harvard Team believes the scheme is feasible and would offer benefits on a number of fronts. Most importantly, VHI would mobilize private expenditures into a better organized form of healthcare financing and would facilitate a more active role for the insurer as a purchaser of efficient and effective services from both government and private providers.

As described in Section 1 above, we have explained why Malaysia's long-term path should be toward a universal social health insurance (SHI) system that would integrate both public and private financing into a unified, sustainable system. At the present time, due to fiscal constraints and priorities, it is not likely that the government will increase financing for health care in order to meet the increased expectations and demands of citizens for healthcare services. In order to maintain its current high quality of health care while meeting evolving needs, Malaysia will need to rely on a mixture of public and private financing. These two separate sources should be combined into one plan to fund essential health services and promote greater efficiency and better quality of care. Otherwise it is unlikely that Malaysia will be able to maintain equitable access to efficient and reasonable quality health care.

The health insurance scheme should be voluntary because it is intended to offer a more cost-effective alternative for citizens to finance their healthcare needs. Voluntary enrollment would force the VHI scheme to develop insurance products that satisfy citizen demands, as VHI would need to compete with private insurers for enrollment by demonstrating that it can offer better products or lower costs.

Furthermore, the VHI scheme should be non-profit because it will serve an important public institutional

role in Malaysia by offering cost-effective health insurance and ensuring high-quality health services to the enrolled population. A for-profit VHI provider would focus on how to generate profits and would operate accordingly. For example, a for-profit insurer might deny insurance to those who represent poor risks (the sick), or avoid paying required claims for health services.

A key benefit of voluntary health insurance is that the scheme can make a major contribution to Malaysia's health system by being a vehicle to remedy the current inefficient and ineffective private health insurance market through benchmark competition. VHI can serve as a benchmark if it can operate as an efficient and effective health insurance scheme that private insurers must compete with. The resulting pressure for private insurers to improve efficiency and operations will benefit all Malaysians.

An appropriately structured and organized non-profit health insurance plan that operates efficiently could offer lower premiums than private insurers and attract new enrollees who are currently paying out of pocket for private health care. This incentive would increase organized risk pooling for the financing of healthcare services, reducing reliance on out-of-pocket financing, which is inefficient and exposes consumers to financial risks.

We have recommended that Malaysia gradually shift from a budget-driven model of public health services to a purchaser model. The VHI scheme would initiate this purchasing model and enable the capacity development needed to fully develop strategic, efficient purchasing arrangements which could address some of the current duplication and inefficiencies caused by lack of integration between the public and private sectors. In the long-run, if Malaysia decides to move toward a universal social health insurance system, this system will rely on an institution with the expertise and administrative capacity to operate SHI properly. It would take at least a decade to develop such capacity. VHI can thus serve as the building block that will enable a future transition to SHI.

We believe VHI would be a pilot and a building block for a long-term transition to SHI. Furthermore, it would minimize the major risks that would be encountered if Malaysia were to move immediately to transform its health system to an SHI model. In addition, VHI would require a much more modest government investment compared to a full-scale transition to SHI.

2.3. Design Principles

While the key design parameters of the VHI scheme must be determined through more detailed analysis and in consultation with Malaysian stakeholders, our preliminary ideas about the design parameters for a voluntary health insurance scheme are described below.

Population to be covered under VHI

All voluntary insurance schemes suffer from a major weakness: adverse selection by those who would voluntarily enroll and pay a premium. International evidence shows that adverse selection can bankrupt a health insurance plan very quickly [11]. The usual insurance practice to reduce adverse selection is to develop an underwriting process to reject the poor health risks and select good risks to

insure. The alternative is to design insurance products to attract good health risks and pool these with the poor risks. The purpose of establishing VHI as a quasi-governmental, non-profit institution would preclude the former alternative. Furthermore, VHI is intended to be a major building block for a long-term universal social health insurance system. Thus, the design challenge is how to attract a large pool of good health risks into the VHI scheme while making the scheme available to the general public. Offering VHI to legal migrant workers and workers at government-linked companies would be one possibility.

Other population groups that could be targeted under the plan include:

- Civil servants, starting with the young low-risk civil servants;
- Poor and low-income groups;
- Large private employer groups with more than 250 workers without health insurance for their workers.

The strategy of including low-income groups at the outset is critical if Malaysia is to attain its stated long-term vision of inclusive growth. The importance of this strategy has been highlighted by agencies such as Bank Negara. In particular, if the government (through the Public Service Department) pays a portion of the premium for civil servants, then a concomitant insurance for the poor (e.g. e-kasih, urban poor, the bottom 40 percent [B40] and/or BR1M recipients), must be introduced with targeted government subsidy to preserve the equity and solidarity of the current conditions in the Malaysian health system. However, the rationale for why the poor should be incorporated at the outset is not only to establish the principles of solidarity and social protection within the scheme, but also to establish a reasonable benefits package which can be sustained and expanded to cover all income groups. If only relatively affluent groups are included at the outset, they would demand a generous and therefore expensive benefits package, which would preclude the future inclusion of all income groups with the same benefits package, as noted from international experiences.

Benefits package design

VHI will need to offer at least one basic benefits package with an attractive premium. The benefits package should cover comprehensive primary health care and secondary/tertiary care. Including preventive and primary care could reduce the need for more expensive hospital care, reducing costs and thus the premium rate. The scope and richness of the benefits package requires further detailed study of the Malaysian situation in terms of what people value in voluntary insurance, what current benefits packages are offered by the existing market, and what services are currently being offered by the government services. The benefits package should also be designed to leave sufficient space for the development of supplementary private health insurance schemes, which could offer coverage for additional services not included in the core benefits package or higher levels of personal service quality and amenities.

Role, institutional arrangements, and operation of VHI

The VHI scheme should play an active role on behalf of the insured in purchasing cost-effective, high quality services. Serving a strategic purchasing role, VHI would contract with both government and private healthcare providers and also create healthy competition between the two sectors.

Payment systems will need to be designed in order to reimburse providers. The payment mechanisms used should create strong incentives for providers to deliver higher quality and more efficient health care. The most likely payment mechanisms to achieve these ends would include capitation and other bundled service payment methods. International evidence shows that these methods can improve the quality and efficiency of health care [12]. However, moving away from the current inflationary fee-for-service payment method will be extremely difficult because the transition could have measurable effects on the incomes of public and private providers. Strong political opposition from powerful stakeholders like private GPs and hospitals can be anticipated. Thus, the transition from the current payment method to new payment methods would likely need to be gradual and phased.

Furthermore, VHI has the fiduciary responsibility to the insured and to the nation as a major non-profit organization. Its operation and performance must be transparent to the public, and the government must have a supervisory and monitoring role over VHI. The government should hold the VHI administrating agency accountable for its performance to produce the desired social and economic benefits.

Premium rates

In principle, the premium should be based on community rating to contribute to the goal of inclusive growth. However, the voluntary nature of VHI requires community rating to be phased in gradually because of the current market conditions in Malaysia, where many large employers are self-insured. These companies' costs may be low, since they cover mostly young, healthy workers and their families. Community rating could increase these employers' premiums, in which case they would not be likely to voluntarily purchase insurance from VHI. Eventually, the design of the community-rated premium rates would be adjusted for employers who adopt workplace health promotion measures such as health coaches for their high-risk workers, counseling services, or exercise facilities on work premises, for example.

Competitive premium rates would be one principal parameter in designing the pooling of risks and setting the premium rates. Premium rates are determined by a combination of factors, including methods for pooling health risks, design and scope of the benefits package, the purchasing mechanism, and payments methods and systems.

2.4. Potential Benefits and Risks

Sections 2.2 and 2.3 above presented the rationale for VHI and explained the design parameters. In this section, we give a concise summary of the potential advantages and disadvantages of VHI, based on the information given in previous sections.

Potential benefits and advantages:

i. Mobilizing current out-of-pocket spending into an organized financing vehicle that pools risks and improves the efficiency and quality of health services;

ii. Decongesting public services by lowering patient loads;

iii. Serving as a benchmark for private insurance products and rates paid to private providers, which will put downward pressure on private health insurance premiums;

iv. Providing an alternative source of health insurance for private sector firms to insure their employees;

v. Serving as a pilot for modern group health insurance to incentivize employers to prevent illnesses of their employees;

vi. Serving as a fundamental building block to a future universal health insurance system.

Potential risks and disadvantages:

i. Gains from decongestion may be dissipated if VHI leads to a lowering of budgetary allocations to MOH facilities;

ii. Gains from decongestion may also be lower if the insurance plan purchases services from MOH facilities (as in the case of SPIKPA) or insured patients receive preferential care in MOH facilities beyond choice of ward, although additional revenues may result;

iii. Risk of adverse selection if participation is voluntary;

iv. Risk of creating a transparent two-tiered health system if inadequate attention is given to equity issues raised by VHI.

In phase II, we will carry out more detailed assessment of these risks as well as put forth proposals for how to ensure positive impacts of VHI on public facilities, mitigating risks such as reduced government budgetary allocations for facilities that are able to raise revenues by attracting more insured patients.

2.5. Analysis to Inform Design of VHI

Further detailed analysis is required to develop the specific design features of the voluntary health insurance scheme. The major tasks and research to be completed include: (i) providing analysis and information for Malaysian policymakers to decide on several strategic policy decisions, and (ii) conducting detailed planning for the implementation of these decisions. Below is a brief explanation of the strategic decisions and the analysis required to inform them.

Planning for benefits package design and premium determination

Analysis will need to be carried out to determine the current healthcare needs, expenditures, benefits packages, and private insurance demand of potential target populations, such as:

- Foreign workers;

- Current employees of government-linked companies (GLCs);
- Civil servants with private insurance;
- Potentially new voluntarily enrolled civil servants by age or service grade;
- Large private employer groups with more than 250 workers without health insurance for their workers;
- Low-income and poor populations (e.g., e-kasih, urban poor, the bottom 40 percent [B40], and/or BR1M recipients).

Specific areas of analysis will include:

- Information and analysis to assist in determining the actuarial premium rates of VHI insurance products: age, sex, residency location, income, occupation, and health status of the current insured population groups; the premium rates, sales commission rates, and loss ratios of different benefits packages; overlap in health insurance coverage; and payment methods and rates.
- Information and analysis to assist in designing the insurance package and premium rates: utilization rates of services by age, sex, income and location for each group, separated into services utilized in private and public providers.
- Innovative design of group health insurance: investigate how to introduce experience rating to employer group health insurance based on concrete measures taken by employers to reduce/prevent non-communicable diseases.

Projecting impact on MOH facilities

The impacts of VHI on workloads and additional revenues to MOH facilities will need to be assessed, including projecting the portion of the insured population that will use public providers rather than private providers, and determining how new revenues at government facilities would be managed.

Planning to establish the VHI organization

A health insurance organization and its operation require an array of experienced health insurance executives and experts. Malaysia has at least two choices for how to develop the operations and build up the necessary expertise and operational capacity. First, the Malaysian government can contract the development of operations and management to an external organization. This organization will mentor and train a group of key staff who will eventually take over the operation. The second option is to develop the operations and management of VHI in-house. This alternative requires an organization that is able to select and recruit experienced health insurance executives and experts quickly and to operationalize the VHI organization.

The planning for VHI organization includes the design and development of:

- The governance and organization of VHI, including its relationship to the Ministry of Health, Ministry of Finance, Bank Negara, and Parliament;
- Board composition of the VHI organization;

- Detailed planning to establish the VHI organization. VHI requires creating a new institution, selecting and recruiting competent executives, managers, technical experts, and staff to do the following key functions:
    - Develop health insurance products and their benefits packages;
    - Determine payment methods and payment rates to providers;
    - Contract providers and effectively negotiate purchasing of health services from contracted public and private providers;
    - Determine the premium rates of various products;
    - Market and underwrite the insurance products;
    - Design smart identification cards for enrollees and operate this identification system;
    - Accredit and register qualified providers and design their provider identification; determine how this accreditation and registration relates to the current statutory bodies in accreditation;
    - Develop systems and procedures for electronic medical record and claim filing;
    - Develop fraud, abuse, and risk management systems, including computer screening algorithms to identify fraudlent claims, abuses, over- or under-treament, and establish medical audit and adjudication for questionable claims;
    - Establish a quality assurance department: set quality performance standards for providers and quality measurements for any pay-for-performance payment system;
    - Establish a financial department to manage and handle premium payments, payments to providers, accounting, comptroller and audit;
    - Human resource department;
    - Procurement department;
    - Investment department;
    - Monitoring and evaluation department—conduct independent studies of patient outcomes and provider performance, include surveys of enrollees and employers; report to Board, patients, providers, public, and Parliament.

Design of insurance products and premium rates

The design of selected insurance products (e.g. for foreign workers and a few selected GLCs) and determination of premium rates will need to be completed before implementation can begin. This will include design of smart identification cards and computer design and programming for claim payment and fraud, abuse, and risk management systems.

Capacity building

Voluntary health insurance would be a new concept for MOH, Bank Negara, and other government agencies. Malaysian officials will need to become familiar with various aspects of VHI so these officials and analysts can plan VHI and manage its implementation. The MOH and Bank Negara will play significant roles in monitoring, evaluating, and regulating the VHI scheme.

Assessing role of VHI in a longer-term transition

Further analysis is also needed to plan concrete steps for how VHI can serve as a fundamental building block in a longer-term transition to universal social health insurance. This involves defining the potential roles for private health insurance and VHI in an eventual social health insurance system. For example, private insurance could play a role in providing supplementary insurance under the universal system. This supplementary insurance would provide insurance benefits for services and drugs not provided in the core SHI benefits package, such as higher-level amenities like private rooms.

Implementation-related activities

The activities described above must be carried out as part of the design. To prepare for implementation, a further set of tasks would need to be carried out beginning in 2017. These would involve establishing the VHI organization and preparing for implementation in the following year. Specific activities include:

- Establishing governance and management systems of the VHI organization;
- Appointing the Board members and management team;
- Establishing a fully functional VHI either by outsourcing the work or building in-house capability;
- Developing and testing operational procedures;
- Developing specific insurance products with benefits packages, payment methods and rates, and premium rates. This must be completed before beta site testing can begin;
- Designing an evaluation plan of VHI to assess its performance and its wider impacts.

2.6. Next Steps for Planning, Analysis, and Implementation

An indicative list of next steps for the design of the voluntary health insurance scheme is summarized in Table 2 below. These steps would need to be undertaken by the Government of Malaysia, with the MOH as the lead agency. The Harvard Team would provide technical guidance and would contribute to the research, analysis, and capacity building described in the previous section in order to inform the decisions made.

Table 2. Timeline for Design of Voluntary Health Insurance

Subject	Content	Completion Date
Approval by the Minister of Health	Finalize concept paper on VHI and its demonstration with the Minister; Minister to make recommendation on how to proceed	3/2016
Approval by the Prime Minister	Prime Minister gives approval to proceed with the development of VHII	3/2016
Cabinet paper	Development of cabinet memo	3/2016
Approval by the Cabinet	Cabinet gives approval to the development of VHI	4/2016
VHI planning unit	Establish a Change Management Team within the Ministry of Health to plan VHI, with guidance and technical assistance from Harvard Team	4/2016
Analysis to inform legal framework	A legal team in the Ministry of Health works with Attorney General, Bank Negara, and Economic Planning Unit on the best legal framework for a quasi-governmental non-profit organization for VHI; Harvard Team may provide some guidance	4/2016
Technical analyses completed	Analysis of target populations and costs completed	6/2016
Establish a legal non-profit VHI corporation	Establish/incorporate the VHI organization according to the legal framework agreed	9/2016
Recruitment of executive team	Identify board and executive team members	10/2016
Develop a staffing plan	Develop a staffing plan for design and rollout of VHI	10/2016
Budget for VHI	Plan a budget and obtain appropriation	11/2016
Begin VHI organizational activities	Start to build the operational capacity and competency of the VHI	1/2017

3. Recommendation 2: Organizational Change to Improve Service Delivery

3.1 Background and Concept

Malaysia has developed a universally accessible health system underpinned by a geographically widespread network of primary health care clinics and hospitals, which has served the country well since independence.

The health system has very effectively countered the health challenges it was designed to address, namely infectious diseases, high levels of maternal mortality, infant mortality, and under-five mortality, achieving excellent outcomes on these measures. But the health system faces challenges in the face of the rapidly evolving context, which has ushered in demographic and epidemiological transitions (and with them high levels of NCDs), changing socio-cultural environment, technological changes that have led to an information and communications revolution, and rising income levels that have contributed to a nutritional transition, rising health risks, and reshaped user expectations. In effect, Malaysia demonstrates a classic case of ***asymmetric transition***, where the rapid transitions in context have not been matched with a transition in the health system to better prepare Malaysia to address current and future health challenges.

The consequences and causes of performance challenges in the health system are described in detail in Sections 2–6 of the companion report on contextual analysis of the Malaysian health system [1]. One of the most important reasons for suboptimal performance of the health system is relatively low health expenditures and inefficient allocation of funding, with primary health care receiving a small proportion (around 15 percent) of total health expenditures; as a result, the health system has not been able to fulfill its potential in managing non-communicable diseases. While the performance problems in managing NCDs identified in MHSR could be addressed in different ways, international experience suggests a health system with strong primary health care is best positioned to address the rising burden of chronic illness and disability which Malaysia and other countries are experiencing.

Strong primary health care contributes to improved performance of a health system in terms of better health outcomes, equity, efficiency, and effectiveness [13, 14]. Primary health care is a critical ingredient for universal health coverage [15, 16], for realizing the vision of 'Health for All' [17], and for achieving greater value for money in health systems [18].

International experience suggests that primary health care is an effective platform not just for improving health outcomes, strengthening financial risk protection, and narrowing equity gaps, [19, 20] but also for improving user satisfaction [21]. However, true benefits of primary health care can only be realized if key primary health care functions are effectively discharged and services provided in a 'holistic' manner.

The four main features of a strong primary health care system are:

i. First contact access for each new need *(first contact function)*;

ii. Long-term person-focused care, which is ongoing care for the person and not just the short-term duration of a disease *(continuity function)*;

iii. Comprehensive care for most health needs (a range of services appropriate to the common problems in the population) *(comprehensiveness function)*; and,

iv. Coordinated care, by which primary care acts to coordinate access to other services the patient needs *(coordination function)* and the health system.

First Contact

A strong first contact function through improved access to family physicians (or well-trained primary care physicians, which we use interchangeably in this report with family physicians or the Malaysian-equivalent 'family medicine specialists') has the following benefits:

- Enabling a greater range of conditions to be managed by family physicians in primary health care setting [22];
- Reducing hospital referrals and admissions [23, 24];
- Lower utilization of specialists and emergency centers [25, 26];
- Lower likelihood of being subjected to inappropriate health interventions [27];
- Reducing cost of care [28]; and
- Less self-referral to secondary care services [29, 30].

Continuity

There is a strong association between continuity and increased patient satisfaction [31, 32]. Patients who feel enabled and are satisfied with a consultation are more likely to revisit the same doctor [33]. When primary care physicians know their patients well, accuracy of diagnosis and compliance with treatment are increased [34-36]. Patient-primary care physician partnerships, established through collaborative goal setting and agreed action plans, increase self-management by patients to enhance patient care and improve outcomes for key chronic conditions [37].

Patient satisfaction with primary care physicians is strongly influenced by the mode of care delivery, physician style, availability of a named physician for out-of-hours care, and continuity of care [38-40]. The value placed on the accessibility of services delivered by primary care physicians is an important factor which influences public satisfaction with the health system [41]. Countries which offer 24-hour, seven-days-a-week access to physician-led primary care have the highest public satisfaction with health care [42]. Patient satisfaction is higher in smaller practices and those with personal lists, with a named doctor responsible for the enrolled patients [43].

Comprehensiveness

Strong primary health care addresses the most common health problems in the community [44]

by providing preventive, curative, and rehabilitative services, and integrates care when more than one health problem exists. Shifting care across hospital specialist/family practice and secondary/primary care boundaries is possible and has been shown to be cost-effective without adverse impact on health outcomes. Several well-designed studies comparing care delivered by family physicians to that by hospital specialists show no significant difference in quality and health outcomes when these services are substituted for secondary specialist care [45]. Health systems differ in the degree to which they have developed systems which rely on hospital specialists for primary care or not—and this affects quality and costs. In some countries, hospital specialists and family physicians work both in primary care and in hospitals. Family physicians are more likely than hospital specialists to provide continuity and comprehensiveness [46]. Broadening access to family physicians can reduce demand for expensive hospital care [47].

Furthermore, international evidence suggests that family practitioner-led hospitals provide health care at lower cost compared with alternative modes of care [48] and can achieve cost saving by reducing referrals and admissions to higher-cost general hospitals [49-51].

Care delivered by family practitioners as compared with hospital specialists in hospital-based accident and emergency departments is shown to be more cost effective, with lower use of diagnostic investigations, lower referral rates to secondary services, lower prescription levels, and no significant difference in patient satisfaction or health outcomes [52-54].

Internationally, nurses play a critical role in the provision of coordinated and comprehensive primary health care, with improved management of chronic diseases, wound care, and health promotion activities. It is not uncommon for nurses and midwives to prescribe medicines. Community-based nursing has expanded to increasingly assume services previously provided in hospitals including lifestyle counseling, diagnosing health conditions, and providing home-based care for acute conditions, post-operative care, rehabilitation, and end-of-life care. Community-based nursing has brought care closer to the patient's home, while addressing the health needs of an ageing society with increasing patient satisfaction [55]. In Europe, 25 countries such as Estonia, Finland, the Netherlands, Spain and the United Kingdom use family-focused and community-based programs delivered by nurses and midwives [56].

Similarly, lay health workers, community members who receive training to promote and deliver healthcare interventions, play an important role in providing comprehensive primary health care [57].

Coordination

Efficient organization of practice—especially with data collection, prescription, and referrals—improves performance [58]. In particular, effective use of computerized information systems [59] and computerized decision support systems can improve performance and service quality [60, 61].

Primary health care plays an important role in organizing how resources at different tiers of the system are deployed to promote, maintain, and improve health [62]. The coordination function is particularly important when managing NCDs, where primary

and secondary prevention and continuity of care is critical for improving health outcomes.

3.2. Rationale

Performance of primary health care in Malaysia in relation to the first contact, continuity, comprehensiveness, and coordination functions

While Malaysia has developed a comprehensive primary health care network, there is evidence that performance for each of the four core functions—first contact, continuity, comprehensiveness, and coordination—could be improved.

Suboptimal first contact and gate keeping functions of primary health care are evidenced by high levels of hospital inpatient admissions for ambulatory care-sensitive conditions. Almost one-fifth of admissions to hospitals are for ambulatory care-sensitive conditions that could be avoided.

Continuity of care is a major challenge: a lack of a named doctor or a primary health center with responsibility and accountability for patients, and a pattern of healthy individuals and families not using health services indicate that the continuity function is compromised. In addition to personal continuity, temporal continuity is compromised, as primary health care is not responsible for the continuity of care of the population out-of-hours.

Coordination is suboptimal. In the Malaysian health system, "someone is responsible for a patient some of the time, but no one is responsible for that patient all of the time." Not having a named person responsible and accountable for the health of individuals means effective coordination of a 'patient's journey' in the health system is not accomplished. Demonstrated deficiencies in the referral and counter-referral mechanisms further undermine the coordination function of primary health care, and in all likelihood, lead to poor management of chronic conditions, which critically depends on good continuity of care.

Effective coordination in primary health care (and the health system) is hampered by the lack of electronic health records, which are needed to effectively manage patients throughout the care continuum, to assess the quality of services provided, and to measure health outcomes achieved at different levels of the health system.

Comprehensiveness of services in primary health care is not at a level expected of an advanced health system. While the core set of services provided in primary health care have been effective in addressing challenges of the past (such as high maternal deaths and infant mortality due to infectious diseases), they are less well-aligned with the needs that have emerged as a result of the rapid epidemiological transition, with high and rising prevalence of NCDs, mental illness, road traffic accidents, and injuries (as discussed in Section 4.1.2 of the companion report on contextual analysis of the Malaysian health system [1]).

As discussed in Sections 2–6 of the companion report [1], organizational arrangements, financing, and provider payment systems all interact to influence the performance of the health system as a whole, and the performance of primary health care.

Organization

Organizationally, decision-making in the health system is highly centralized. State health departments and district health offices transmit budgets to lower levels but do not act as strategic commissioners or purchasers of targeted services linked to performance targets.

Flexible organizational design, which has afforded greater local responsibility, has enabled many upper middle-income and high-income countries, such as Spain, Finland, and Sweden to rapidly scale up and expand access to enhanced primary health care. Ministries of Health or health insurance agencies have used service-level agreements or contracts with the private sector to engage a diversity of primary health care providers. Contracting has allowed emergence and co-existence of different models of primary health care, ranging from small practices (that include a family physician or general practitioner with a practice nurse and administrative staff) to primary health care networks (for example, partnerships in the United Kingdom, cooperatives in Chile, and clusters in Hungary that provide a wide range of services including shared diagnostic facilities and hospitals).

Financing

Government funding of primary care is inadequate (Section 3.3.1 of the companion report [1]), and needs to be increased to meet current and future demand. Resource allocation is based on historic budgeting, which is determined by past expenditure patterns. Consequently, resource allocation does not reflect current and future needs at state, district, or primary health care levels. In the private sector, financing for primary care is largely through out-of-pocket payments—which discourages use of primary care for prevention and other non-acute needs.

Provider Payment Systems

The current mode of provider payments in primary health care is suboptimal. In the government sector it is salary-based, with no high-powered incentives to improve or maintain performance. In the private sector, the primary care workforce payment is largely fee-for-service (even when paid for by insurers), with the attendant perverse incentives to increase services, including provision of unnecessary procedures, diagnostics, and medicines. There are no incentives to achieve substantial secondary-to-primary shifts in utilization.

Although the behavior of primary care physicians (and the health workforce more generally) is influenced not just by economic considerations but also by status, intrinsic motivation, and altruism, economic incentives play an important part in influencing provider behavior and impact the scope and quality of services provided [63-65]. For example, when general practitioners are paid by capitation (receiving a fixed payment for each patient on their list and bearing the full monetary and effort cost of providing care for their patients), they have an incentive to employ inputs efficiently, but also have an incentive to provide high quality services to register/enroll new patients [66]. Linking general practitioners' remuneration to quality targets leads to improved quality of services and health outcomes, particularly for chronic illnesses [67, 68].

Fee-for-service, especially selective fee-for-service

(where only specific services that are targeted for expansion are tied to fee-for-service payments), can help improve the quality of services, especially for those services where quality is low [69], but there is a risk of overprovision of these services as doctors have an incentive to provide more services [70], especially in the presence of competitors [71]. Evidence from Nordic countries suggests that changing payment methods from pure capitation to a mixed payment including capitation and fee-for-service leads to an increase in the intensity of diagnostic and curative services provided by general practitioners, but a reduction in the number of referrals and prescriptions [72], although in other instances an increase in referrals has been observed [73].

Several European countries have used a combination of risk-adjusted capitation and fee-for-service payments in primary health care, often with 'pay-for-performance' as an incentive to expand health promotion, disease prevention (for example for immunizations, screening for breast and cervical cancers, developmental screening for children, screening of older citizens, and screening for chronic diseases), to improve quality of care, and to enable the provision of integrated care [74, 75].

When developing demonstration projects to establish enhanced primary health care in Malaysia, there is a need to take into account institutional rigidities and provider payment systems to transition to a model that consists of a mix of per capita payment, case-mix, and performance-related pay for reaching output and outcome targets.

We discuss below the design principles and the key elements of a new and enhanced primary health care model, which will be implemented concurrently with the Voluntary Health Insurance scheme.

3.3. Design Principles

We propose that the 'enhanced' model of primary health care should be guided by a set of principles (see Section 1 of this report) to be *(i) equitable*—accessible especially for those who have the most need, *(ii) effective*—so that interventions are informed by scientific evidence, with the content and scope of services reflecting current and emerging health needs, *(iii) efficient*—with service delivery models that are sensitive to resource availability, and *(iv) responsive*—with an inclusive process that enables user engagement in the design of health services to ensure that user needs and preferences are taken into account.

The design of primary health care should foster patient-centeredness, with judicious integration of services [76]. The design should foster institutional flexibility to enable responsiveness to the rapidly evolving context (growing burden of risks, NCDs, and disability; rising user expectations) and differing health outcomes and heath seeking behaviors across geographies and population groups. Furthermore, rising demands on the health system combined with fiscal constraints require primary health care to develop capacity for continuous learning and innovation to improve quality and efficiency.

3.3.1. Geographic Demonstration Projects

We propose multifaceted and phased interventions aimed at developing enhanced primary health

care in demonstration sites. These sites should be settings with planned or existing Electronic Health Records at health clinics, a relatively high burden of non-communicable diseases, and local reform champions. The demonstration sites should involve multiple clinics and cover a population of more than 100,000 in each state to have population-level impact. Demonstration sites are needed to test the feasibility of introducing the new enhanced primary health care model, learn lessons from the implementation experience, and estimate costs and impact of the new model. Major interventions are summarized below.

3.3.2. Organizational Design: A New Organizational Model

The focus of the demonstrations will be at the primary health care level to establish the feasibility of introducing a new service delivery model and strategic purchasing function to accompany the introduction of VHI. Once 'functions' are established, considerations of 'form' can follow to explore optimal organizational design of the Ministry of Health and broader governance arrangements in the health system. We do not propose to detail these in Phase II, the design phase.

Family Health Centers and Family Health Teams

Primary health care clinics should be branded as Family Health Centers with Family Health Teams (typically comprising family physicians, nurses, pharmacists, oral health teams, specialist nurses, midwives, nutritionists, and physiotherapists) established within these centers. Initially, the MOH primary care clinics participating in the demonstration sites will be rebranded as Family Health Centers, expanded later to also include private sector clinics contracted to provide new services and government clinics that reach a certain quality standard and are 'accredited.'

Family Health Teams should be able to enter into service-level agreements or contracts with the Ministry of Health and later with the strategic purchasing entity of the VHI organization. However, each Family Health Team or group practice should be accredited before receiving the legal status as a service provider that can secure a service contract.

Family Health Teams will vary in size, depending on the population covered and the scope of services provided. Family Health Teams will typically include, but are not limited to: primary care physicians, family medicine specialists, family nurses, midwives, community nurses, community health workers, specialist nurses working in the community (e.g. for mental illness or tuberculosis, or case managers for complex cases), at home, or in Family Health Centers, dentists, dental nurses, physiotherapists, occupational therapists, optometrists, audiologists, nutritionists, analysts, and managerial staff. Each team will be responsible for up to 10,000–15,000 patients in densely populated areas and smaller numbers (ranging from 1,000–3,000) in rural areas, although the size of a nucleus team and a family health center will be determined during the project design phase. Most of these staff exist in Malaysia, but some will need to be trained.

Family Health Teams should have the flexibility to include outsourced staff in their team as needed, including specialists, community-based specialist nurses, or other health professionals, or to sub-contract services to provide enhanced services and achieve secondary-to-primary service shifts.

Geographic boundaries of family health teams

Geographic boundaries for Family Health Teams should be designated according to need to ensure equitable distribution of teams and to promote patient choice and access. Family Health Teams should have overlapping geographic boundaries within a designated area, ideally coterminous with administrative boundaries, such as a district or a sub-district *(mukim)* unit, to facilitate multi-sectoral collaborations. Rural areas with a low population density may have correspondingly larger geographic territories designated as practice areas for Family Health Teams compared with urban areas. Patients within a geographic area should be able to enroll with a Family Health Team of their choice.

To ensure equitable access to Family Health Teams, each designated geographic area should be categorized as '*high need*,' '*intermediate need*,' or '*low need*' depending upon the availability of the clinics, staff and the number of people available for registration. In a *'high need'* area, incentives (such as rural allowance, deprivation allowance, or higher per-capita payment level) could be used to attract new Family Health Teams to establish practices, and (if accredited) receive contracts. An '*intermediate need*' area would have Family Health Teams but with a number of registered patients near the maximum allowable level (number to be determined) and with some which may exceed this level. In such areas new Family Health Teams could be appointed to encourage competition and choice. In a '*low need*' area—for example in urban settings with a high density of clinics—there might be an oversupply of Family Health Teams and teams would not have enough patients to be financially sustainable. Appointments of new Family Health Teams would be restricted until there are enough patients.

A threshold will be set for the minimum number of patients needed to establish a practice for a Family Health Team. In areas of '*high need,*' it should be possible to establish a practice with a smaller number of patients. In addition to rural allowance, deprivation allowance, or higher standard per-capita payment, a sliding per-capita payment level could be used to encourage new practices to set up in areas where population density is low: e.g. 3x standard per capita for the first 1,000 patients enrolled, 2x standard per capita for the next 1,000 (1,001–2,000), and 1.5x per capita for the next 1,000 (2001–3000). Thereafter, the per capita level would revert to the standard level up to the maximum number (with appropriate weightings to which all Family Health Teams would be entitled).

Referral, self-referral and counter-referral systems

A gatekeeping function should be strengthened by dis-incentivizing direct access to secondary care for non-emergency care, which should ordinarily be following referral by a general practitioner.

Direct access to hospital care for acute emergency conditions will not be hindered.

MHSR findings suggest that current referral and counter-referral systems are not functioning. In order to overcome the current inefficient and costly situation, we propose the establishment of a referral and counter-referral system in the demonstration sites with the involvement of local hospitals through four interlinked interventions, namely: (i) guidelines and care pathways—which should be developed and implemented for priority conditions to ensure that, except for emergency conditions, no patient should be seen at hospital without referral from primary health care. Anyone presenting as a self-referral should be subject to a higher co-payment for consultations and treatment, unless they are not able to pay for services; (ii) incentives—which should be provided to primary health care providers, in the form of performance-related pay—to reduce hospital referrals, especially for ambulatory-care sensitive conditions; (iii) counter-referral—any patient discharged from hospital must have a counter-referral letter addressed to the referring doctor or to the Family Health Team with a treatment plan; and (iv) integrated health information system—which should be established to enable information sharing for referrals to and counter-referrals from hospitals.

We propose the creation of a *Guidelines and Referral Taskforce* at the Ministry of Health, with representation from states, to identify priority areas for developing guidelines and care pathways to reduce unnecessary referrals to hospitals and to improve referrals and counter-referrals. The Taskforce should develop guidelines and referral pathways in three stages: (i) assessment of evidence and best practices, (ii) appraisal, to develop consensus on what is appropriate for Malaysia, and (iii) design care pathways with performance targets.

Quality assurance and control systems

Continuous quality improvement should be embedded into clinical practice and organizational principles, with each Family Health Center having a dedicated lead person. Each Family Health Team should be responsible for undertaking clinical audit and prescribing audit to demonstrate good clinical practice and effective prescribing.

Clinical audit should initially be in priority areas where evidence-based guidelines, clinical pathways, and referral systems have been introduced. Clinical audit should be an integral part of the continuing professional development program.

3.3.3. Enhanced Scope of Primary Health Care Services

We propose grouping primary health care services into two categories—core and enhanced—to enable provision of a wider scope of services than what is currently available.

Core services

Core services should emphasize currently provided services for common conditions, including relevant health education and promotion advice, disease prevention (primary and secondary), and referral as appropriate. The core services should include (a) general health services (b) screening, and (c) dis-

ease prevention services, each with quality indicators to measure the effectiveness and efficiency of service delivery. Core services, which should be provided by all Family Health Teams, could include:

A: General Health Services

i. History taking, physical examination, application of essential diagnostics

ii. Diagnosis and management of common acute health problems

iii. Health education and promotion

iv. Antenatal, intrapartum, and postpartum care

v. Reproductive health services

vi. Child health and adolescent health services

vii. Oral health

viii. Home visits

ix. Management of referral and counter-referral to hospital specialists

x. Statutory duties (certification of death, recording and reporting of key health data, emergency preparedness)

xi. Recording and reporting of notifiable diseases

xii. Recording and reporting of adverse drug reactions

xiii. Communicable disease surveillance and control with public health functions for:

- Endemic infections (e.g. tuberculosis, HIV, malaria, dengue)
- Emerging infectious diseases (e.g. MERS CoV, SARS, Avian influenza)
- Episodic infections (e.g. meningitis, hepatitis B and C)

Payment for general health services should be in the form of weighted (risk adjusted) per capita pay.

B: Screening

i. Child health surveillance developmental assessment according to national schedule

ii. Adult health assessment for all adults registered with the practice within three years and all newly registered patients within one year

iii. Annual elderly (aged ≥70 years) health surveillance and assessment + flu vaccination

iv. Cervical smear test for women

v. Breast cancer screening

Performance-related pay for screening activities should be in the form of target payments.

C: Disease prevention

i. Childhood vaccination and immunization

ii. Assessment and management of individual risks for NCDs

Performance-related pay for disease prevention activities should be in the form of target payments.

Enhanced services

'Enhanced services,' provided in addition to core services, should be developed with ambitious but feasible targets at individual and population levels. Enhanced services are designed to expand the scope of primary health care, encourage gradual substitution of services currently provided in both public and private hospitals for ambulatory-care sensitive conditions, and reduce the number of unnecessary referrals for inpatient admission to public and private hospitals. Enhanced services could include (a) chronic disease management, (b) community-based health care, (c) home-based health care, (d) additional services, (e) remote care, and (f) certification.

A: Chronic disease management

i. Hypertension

ii. Ischemic heart disease

iii. Heart failure

iv. Diabetes mellitus

v. Hypercholesterolemia

vi. Chronic pulmonary disease

vii. Asthma

These programs should be managed according to the evidence-based guidelines and pathways that will be developed as part of the demonstration, with clear targets for quality and outcomes. These targets, which will include a mixture of process, output, and outcome targets, should be used for performance-related payment systems that will be introduced in the demonstrations.

Clinical and prescribing audits should be undertaken by providers contracted to provide these services to demonstrate achievement of clinical quality targets and effective prescribing, with benchmarking that compares performance across different providers.

B: Community-based health care

Collaborative management of patients in the community in cooperation with specialist doctors, nurses, social services, and local government for the following conditions:

i. Community based screening and diagnosis of NCDs, utilizing community health workers

ii. Mental illness

iii. Tuberculosis

iv. Renal failure

v. Substance abuse

vi. Learning disability

vii. Case management of 'high-risk' patients with multi-morbidity

Payment for these services should be a mixture of case-mix and performance-related pay.

C: Home-based health care

i. Chronic obstructive sleep apnea

ii. Alzheimer's disease

iii. Home nursing

iv. Deep vein thrombosis

v. Parenteral feeding

vi. Cancer—palliative care, pain control, chemotherapy

Payment for these services should be a mixture of case-mix and performance-related pay.

D: Additional services

i. Out-of-hours services

ii. Minor surgery

iii. Medicines dispensing and management

iv. Diagnostics (e.g. ultrasound, X-Ray, colposcopy)

v. Reproductive health (e.g. IUD insertion, long acting contraceptives)

vi. Smoking cessation

vii. Psychosocial counselling

viii. Extended oral health

Payment for these services should be a mixture of case-mix and performance-related pay.

E: Remote care

i. Tele-consultation

ii. Tele-monitoring

Payment for these services should be a mixture of case-mix and performance-related pay.

F: Certification

i. Fitness to drive: history taking, physical examination, application of essential diagnostics

ii. Fitness to drive heavy good vehicles

iii. Fitness for work (including for migrant workers)

iv. Fitness for Hajj pilgrimage

Payment for these services should be in the form of fee-for-service.

3.3.4. Financing and Provider Payment Mechanisms

In order to improve allocative efficiency, regulations should be developed to increase over time (a 10–15 year period) the proportion of resources allocated to primary health care to a level that is in line with OECD countries, where primary health care typically accounts for 20–30 percent of total health expenditure, with a further 10–25 percent allocated to long-term health care.

Performance management and contracting

We suggest the creation of a performance management and contracting organization (PMCO), with accountability to the MOH, with the responsibility for contracting and purchasing services at a national level, starting with the demonstration sites. The creation of the PMCO should be accompanied by the development of an appropriate regulatory environment and the technical capacity to establish, in the demonstration sites, 'service-level agreements' with MOH primary health care providers and 'contracts' with accredited private sector providers with agreed quality standards and performance targets.

An enabling regulatory environment should be developed to define the roles and responsibilities of the contracting institution and providers that will be awarded service-level agreements or contracts. The regulations should specifically address the negotiation and contracting process, contract implementation and monitoring, grievance procedures, contract termination, and arbitration.

Contracts should be implemented for an appropriate period (e.g. three years) to achieve meaningful change and to learn from implementation. Contracts for short periods (such as one year) would impose an unrealistic administrative burden to initiate, terminate, and transfer patient records, and would also adversely impact continuity of care.

Regulations should also specify interventions to ensure user choice, contestability, and fair competition. Critically important elements of contract regulations relate to managing poor performance and management of Family Medicine Teams or Family Medicine Groups that experience financial problems. These points will need to be clearly defined in regulations.

Accreditation

Service-level agreements and contracts should not be automatically awarded to government or private sector providers, but awarded following accreditation to demonstrate 'fitness-for-purpose' and appropriate competencies to deliver services.

Criteria for accrediting Family Health Teams should be defined and incorporated into the new regulatory frameworks. The PMCO should accredit potential providers before establishing service-level agreements or contracts, and assess: (i) safety and suitability of infrastructure, (ii) equipment, (iii) patient records and record-keeping, (iv) systems for clinical audit, (v) systems to safeguard patient confidentiality, (vi) risk management, (vii) continuing professional development for team members, and (viii) user involvement in decision making.

In addition, primary care physicians contracted to provide services should be revalidated (following training) to ensure an appropriate competence threshold.

New provider payment systems to create appropriate incentives

Incentives should be introduced to improve service quality in primary health care. As indicated above, per capita payments could be combined with performance-related pay aimed at improving service quality, meeting set quality criteria, improving efficiency, or reaching certain targets. Case-mix, fee-for-service, or sessional payments could be used to remunerate Family Health Teams in order to strengthen existing services or to introduce new services. Members of the Family Health Teams could be remunerated using a mix of base income (determined mainly by number of patients cared for by the Family Health Team) and performance-related pay. However, new payment systems involving performance-related pay must be underpinned by robust health information systems that can capture timely and reliable data at the individual provider and health professional level.

As no system currently exists for per capita allocation of resources, the demonstration project will include analysis of utilization patterns by different population sub-groups to estimate the workload generated

by each patient category in order to establish a per capita payment formula for resource allocation and for remunerating Family Health Teams. The formula will include: (i) simple per capita payment levels; (ii) definition of weights to be used (for example age and sex, socioeconomic status, employment status, living conditions [for example, an elder living alone], deprivation levels, rurality, and health needs); and (iii) actual weights for each parameter to be used. The analysis and methods for paying providers will be developed in conjunction with the PMCO, which will be formed as part of the demonstration project to establish the contracting and purchasing function.

In addition, the design of the demonstration project will involve estimation of payment levels for: (i) allowances (for example, for rural and difficult-to-reach areas, and for continuing professional education and development); (ii) case-mix payment for selected services (such as for home care of complex conditions); (iii) sessional payments (for example for providing chronic disease management clinics and 'additional services'); and (iv) performance-related pay (for example, linked to coverage targets, outputs, or outcomes for selected conditions or interventions).

The demonstration projects will identify indicators and targets to be used for performance-related pay.

3.3.5. Needs Assessment

Health needs assessment should be used during Phase II of MHSR to identify current and anticipated health needs at the demonstration sites, which will inform planning and resource allocation to Family Health Teams. Specifically, the health needs assessment should include analysis of provider capacity for service delivery in both the government and non-government sectors, staffing levels, and the skills gap with regard to future needs, perceptions of providers and users on 'appropriateness of services,' service utilization by socioeconomic group (including for priority conditions across the care continuum), and perceived barriers to accessing primary health care services.

Needs assessment should be participatory, drawing on rapid assessment methods that use qualitative methods of inquiry and involve community members to initiate a two-way communication between the communities and health providers, help break down any communication barriers, and foster a sense of ownership of the proposed changes in primary health care.

Information gathered from needs assessment studies should guide the design of the new enhanced primary health care model and determination of the scope of services.

3.3.6. Health Information, Monitoring, and Evaluation Systems

Given the heterogeneity of needs in different geographies and across population groups in Malaysia and the rapidly changing context, there should be greater devolution of needs assessment and service planning to the local level. This requires integrated health information systems with analytic and managerial capacity within the PMCO as the purchaser, to assess health needs, plan services, establish meaningful contracts or service-level agreements, monitor performance, and determine payments.

Development of integrated electronic health records should be preceded by a situational analysis of health information systems (clinical and management systems, e.g. for transactions and contracting) at the clinic and hospital level, simultaneously with an analysis of health monitoring and evaluation systems, to identify development needs and formulate a strategy. Among others, the analysis should include a review of:

i. Data structures and data flows;

ii. The technological level of the existing systems in primary health care and the hospital network in the demonstration sites;

iii. The existing information system strategies and plans for development; and

iv. The gaps between the current situation and data requirements to meet needs for monitoring health service activity, costs, and clinical quality.

The analysis should inform formulation of strategic options for the integration of key data flows and additional data collection for establishing an effective health information system in primary health care. The analysis will also inform integration of this information system into the monitoring and evaluation framework, including for clinical audit and to regularly generate feedback to providers and purchasers on the level of service quality.

In particular, as payment for primary health care will transition to a mix of weighted per capita pay with case-mix and performance-related pay, it is critically important that at the first instance, robust information systems are created to capture personal and socioeconomic details of patients enrolled with Family Health Teams to ensure appropriate remuneration, to reduce risk of double registrations, and to capture instances when services are used at Family Health Centers where a patient is not enrolled.

A core data set with suitable indicators should be defined to better reflect the changing epidemiology. The new information system should have appropriate technical platforms and architecture to allow intra- and inter-organizational data sharing and two-way information flow between and within the different tiers of the health system to link information on individuals across different levels. In particular, health information systems should be designed to enable linkage of data on broad health determinants (such as socioeconomic status, lifestyle, and risk factors), provider activities (e.g. utilization of services), costs, and outcomes (such as service quality, morbidity, and mortality).

Monitoring and evaluation systems should be developed to create linkages between health determinants, utilization, costs, and outcomes and to provide feedback to primary health care providers, informing them of their activities as well as outcomes of their interventions, and enabling them to reflect on their performance and modify their behavior.

3.4. Assumptions and Risks

Several assumptions have been made in recommending organizational reform to improve service delivery through enhanced primary health care with geographic demonstration projects. These assumptions include:

i. Strong leadership from the Minister of Health;

ii. High-level support from the Cabinet, the MHSR Steering Committee, and senior officials from the demonstration sites, with visible commitment to a health system strengthening program that emphasizes primary health care for the long-term improvement of performance;

iii. Ability to design and implement the demonstration projects as planned without substantial opposition/change of direction;

iv. Political support to introduce necessary policies, legislation, and directives;

v. Political support at the national and local levels to support implementation of the new primary health care model in demonstration sites;

vi. Ability to train or retrain the health workforce to improve skills and competencies needed for the new model;

vii. Provision of optimal resources, including adequate financing of start-up costs, by the Government of Malaysia, Ministry of Finance, Economic Planning Unit, Public Service Departtment,and Ministry of Health to implement the project simultaneously and symmetrically across the demonstration sites, allowing sharing of experience and resources related to project implementation; and

viii. Continued government support after elections, currently expected in 2018, with smooth potential changes of key national counterparts that do not cause major operational delays.

There are several risks, which need to be quantified during the design of the demonstration project, with plans developed to mitigate risks. These risks are briefly identified below.

Risks for Changes in Stewardship, Organization and Institutional Change:

i. Inability of the government to establish relevant and timely legislation or directives;

ii. Sub-optimal support from the government, MOH, state authorities, and staff at demonstration sites;

iii. Resistance to change from the medical profession, nursing profession, and service users; and

iv. Limited capacity of the MOH to establish strategic purchasing and performance management.

Risks for financing, resource allocation, and provider payment systems:

i. Unwillingness of government and local administration to change resource allocation mechanisms and provider payment systems;

ii. Data for estimating per capita payment and for risk adjustment (weights) not available;

iii. Data for assessing local performance levels and for setting performance targets not available; and Professional resistance to transition to performance-related pay.

Risks for service delivery:

i. Inadequate financing to invest in infrastructure and equipment to develop 'enhanced' primary health care;

ii. Resistance from medical and nursing professionals to new service delivery models and the proposed secondary-to-primary shift;

iii. Non-availability of appropriately trained family medicine specialists, specialist nurses, and community health workers; and

iv. Resistance to establishment of referral and counter-referral mechanisms.

Risks for needs assessment, monitoring and evaluation:

i. Limited resources for conducting the necessary evaluation;

ii. Limited resources and capacity for establishing new health information systems; and

iii. Limited analytic capacity to monitor performance.

3.5. Analyses for Service Delivery Improvements

Analysis will be required to inform the following:

i. Development of priority areas that the demonstration projects will address;

ii. Establishment of design principles;

iii. Introduction of regulatory changes to enable establishment of the institutional environment for the introduction of strategic purchasing and contracting with both private and public sector providers, new resource allocation model, new provider payment systems, performance management, new organizational forms (Family Health Teams), accreditation, and revalidation;

iv. Development of a strategic plan for the demonstration project that identifies demonstration sites and the agreed elements of the projects;

v. Establishment of a detailed implementation plan with clear sequencing of policies, directives, studies, and activities;

vi. Creation of a project management team and leads for work streams, project management approach, implementation milestones, targets, and plans for monitoring of project implementation;

vii. Development of a communication strategy and dissemination plans;

viii. Establishment of a Change Management Team;

ix. Detailed risk assessment and mitigation strategy;

x. Creation of a Performance Management and Contracting Organization;

xi. Establishment of a team for accreditation and revalidation;

xii. Establishment of instruments for contracting and for service-level agreements;

xiii. Establishment of a nucleus Family Health Team;

xiv. Needs assessment to identify community needs and perceptions;

xv. Agreement on the scope of core and enhanced services;

xvi. Estimating costs and resource requirements for core and enhanced services;

xvii. Development of provider payment methods, including quantification of amounts for per capita pay, for weights, and for performance-related pay;

xviii. Establishment of indicators and targets to monitor core and enhanced services and for performance-related pay;

xix. Development of guidelines, care pathways, and referral and counter-referral systems;

xx. Development and implementation of health information systems with data sets and indicators; and

xxi. Modelling and simulation studies to estimate cost of scaling up demonstration projects to national level and benefits and comparison with no charge scenario.

4. Reform Pathways, Sequencing, and Change Management

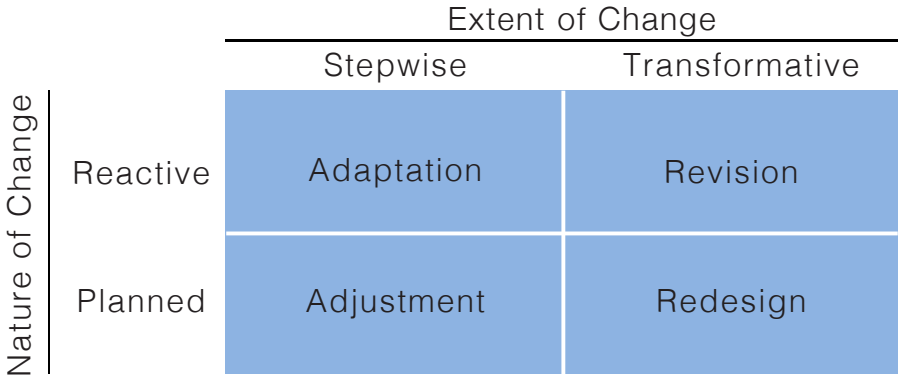
4.1. Reform Strategies and Pathways

The health system reform strategies employed can vary in terms of both the extent of change proposed, and the nature of change. With respect to the extent of change, *stepwise change* indicates that change is achieved through a series of gradual adjustments to the existing system, rather than a radical departure from the status quo. *Transformative change*, on the other hand, represents a more significant overhaul of existing systems and structures. As discussed earlier in the report, while transformative change offers the promise of reforming multiple health system functions at once, and achieving significant impact if successful, it also raises the risk that reform could be blocked if the political, financial, and management resources are not in place to achieve such a large-scale reform. Therefore, contextual factors influence whether stepwise or transformative change is feasible. Our analysis suggests that the Malaysian context is currently not 'receptive' for a large-scale transformational change.

The nature of change can be reactive or planned. Reactive change occurs when policymakers respond to problems as they occur, or implement change only when the status quo is no longer an option. In contrast, planned change is forward-looking, and seeks to address problems before they become apparent.

In the case of Malaysia, we have argued that due to the current fiscal constraints and the need to build capacity for managing health insurance functions and organizational change in the public delivery system, stepwise change is more feasible than transformative change. However, we would stress that change should be planned, rather than reactive, so that the stepwise reforms implemented now are supportive of the long-term vision for health system transformation.

Figure 2. Change Strategies and the Nature and Extent of Change



Source: Atun R. Leadership and Strategy Course, Harvard T.H. Chan School of Public Health Executive Program, © 2015

4.2. Sequencing and Synergies Across Strategies

The recommendations included in this report draw on a system-wide analysis of Malaysia's health system, and represent a systems approach to reform. While in the initial implementation phases, voluntary health insurance and organizational change to improve service delivery through enhanced primary care may be implemented in parallel, these components should be designed with linkages and eventual integration in mind.

The key link between VHI and the enhanced primary care model is strategic purchasing. On the financing side, the new VHI entity would pool premiums and establish a comprehensive benefits package for enrollees that includes primary health care. On the service delivery side, the enhanced primary health care model would create Family Health Teams—integrating both public and private providers—which could enter into contracts or service-level agreements with purchasers. A strategic purchasing function will link the two components, enabling the VHI entity to purchase effective PHC services on behalf of its members. The purchasing function will involve the design of effective contractual arrangements (including service-level agreements), provider payment mechanisms, accreditation systems, and performance management approaches to ensure the purchase of high quality, high value healthcare services.

We recommend that the initial purchasing function be designed to serve as a bridge between VHI and the enhanced primary health care model. This means that care will need to be taken to design institutional and legal arrangements that will initially al-

Figure 3. Linkages between Voluntary Health Insurance and Enhanced Primary Care

low the Performance Management and Contracting Organization and then the VHI entity to enter into contracts or service-level agreements with Family Health Teams.

4.3. Change Management

A comprehensive change management program should be deployed to support the development of the non-profit voluntary health insurance scheme and the implementation of enhanced primary health care in the demonstration sites. This program will involve managing the change process, coordinating efforts across the Ministry of Health and other agencies, and communicating benefits to key stakeholders. A Change Management Team should be established within the Ministry of Health and supported by the Harvard Team to drive forward the change program for the establishment of VHI and the new enhanced primary health care model.

The Change Management Team should also develop a multifaceted communication strategy. This should include early engagement with key stakeholders as part of the design phase to solicit input into and feedback on the proposed reforms. One of the key findings of the MHSR political economy and institutional analysis was that a lack of meaningful engagement early on with critical stakeholders has hindered past health system reform efforts in Malaysia.

Furthermore, public dialogue and dissemination will be critical. A real or perceived lack of transparency in the reform process can generate public anxiety and mistrust, undermining cooperation with the reform. Therefore, we recommend significant public engagement as the design phase progresses, including public outreach around the need for change, the rationale for the strategies selected, and the expected costs and benefits. The Change Management Team should be responsible for implementation of this communication strategy through advocacy and social marketing interventions at national, local, and organizational levels.

5. Conclusions

In this report, we have proposed strategic options for health system reform moving forward. The next step is for Malaysian policymakers to decide how to act upon these recommendations.

Phase II of MHSR (April–December 2016) will focus on designing an implementation strategy for health system reform, including creating a road map for implementation, providing research and technical support for designing demonstration projects, and developing monitoring and evaluation systems to accompany rollout. Strategic communications will also be a critical focus of Phase II; this will involve disseminating the findings from Phase I, engaging in policy dialogue and securing feedback from stakeholders, and working with the Government of Malaysia and Ministry of Health to develop communications around the reform. These activities, which will be detailed in a Phase II Inception Report, will include:

- Guidance on the process for the design of the demonstration projects;
- Revised working arrangements, including technical support to identify a Change Management Team and appropriate expertise for design and implementation activities within Malaysia;
- Research and analysis to inform implementation, including estimating financial costs and economic implications of potential reforms;
- Technical input into reform design;
- Policy dialogue with stakeholders who would be involved in/affected by reform strategies;
- Dissemination of findings (including a joint publication strategy);
- Capacity building.

In conclusion, we would again stress that Malaysian policymakers are in a unique and timely position to transform the future trajectory of their country's health system. While the health system is under pressure, due both to changing contextual factors outside the realm of health policy as well as structural factors tied to health system functions such as financing, payments, service delivery, and governance, the current environment presents not only challenges but also opportunities. Building upon the historic successes of the health system, the commitment and political will of Malaysian leaders to achieve health system improvements, an engaged populace with high human capital, and Malaysia's position at the cusp of becoming a high-income nation, we believe that Malaysia can steer a course toward a modern health system that would be equitable, efficient, effective, responsive, and sustainable. By achieving this transition, Malaysia could serve as a model, providing useful lessons to other middle- and also high-income countries as they grapple with many of the same health system challenges currently faced by Malaysia.

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Appendix 1: Malaysia Health Systems Research Methodology and Working Arrangements

MHSR is a collaboration between the Government of Malaysia and the Harvard T.H. Chan School of Public Health. Carried out jointly by 'Team Malaysia' and the 'Harvard Team', Phase I was organized across nine interlinked 'work packages': (1) Policy Analysis, (2) Performance Assessment, (3) Political Economy & Institutional Analysis, (4) Health Service Delivery, (5) Health Financing, (6) Provider Payments, (7) Pharmaceuticals, (8) Health Information Systems, and (9) Human Resources for Health. Each work package was led by a Harvard Investigator and Senior Advisory Team or Research Team Focal Point. Specific research areas were further divided across 23 'Analytic Teams' under Team Malaysia.

The MHSR methodology is based on a model of collaborative research between the Harvard Team and Team Malaysia. This model ensures that research is policy-relevant and grounded in Malaysia's contextual realities. It also strengthens research networks in-country and builds capacity for evidence-based policy. In Phase I, collaboration and capacity building were achieved using various means, including experiential learning through joint research and analysis, methodological workshops, training courses, and problem-solving technical support.

The MHSR teams and working arrangements are described in more detail below.

Team Malaysia is composed of:

- **Steering Committee:** An advisory committee including high-level stakeholders and government representatives who provide guidance/input on MHSR findings and the strategic plan.
- **Research Management Team (RMT):** Core team which oversees the management and coordination of MHSR.
- **Analytic Teams:** Research teams that work directly with the Harvard Team on data collection, analysis, and synthesis, and present the findings of analysis to the Consultative Group and Senior Advisory Team during Analytic Team Workshops (held in June and December 2015). Each analytic team is led by a focal person who communicates with the Harvard Team on a day-to-day basis.
- **Consultative Group:** A broader group that meets on a quarterly basis with the analytic teams and Senior Advisory Team to discuss the work packages, and provides input on/validates the findings of the analytic teams.

The Harvard Team is composed of:

- **Principal Investigators:** Senior Harvard faculty assigned to lead each of the nine work packages. Each investigator is responsible for identifying synergies and coordinating activities (including data collection) across work packages.
- **Management and Administrative Team:** Core team responsible for management and coordination of MHSR.
- **Senior Advisory Team:** Team of faculty/researchers with responsibility for the different work packages and for providing guidance and oversight to the Harvard Research Team and Team Malaysia analytic teams.
- **Research Team:** A team made up of faculty, post-doctoral fellows, research associates, and doctoral students, working in partnership with analytic teams to carry out research and analysis.

Figure A1.1. Management and Coordination of Work Package Teams

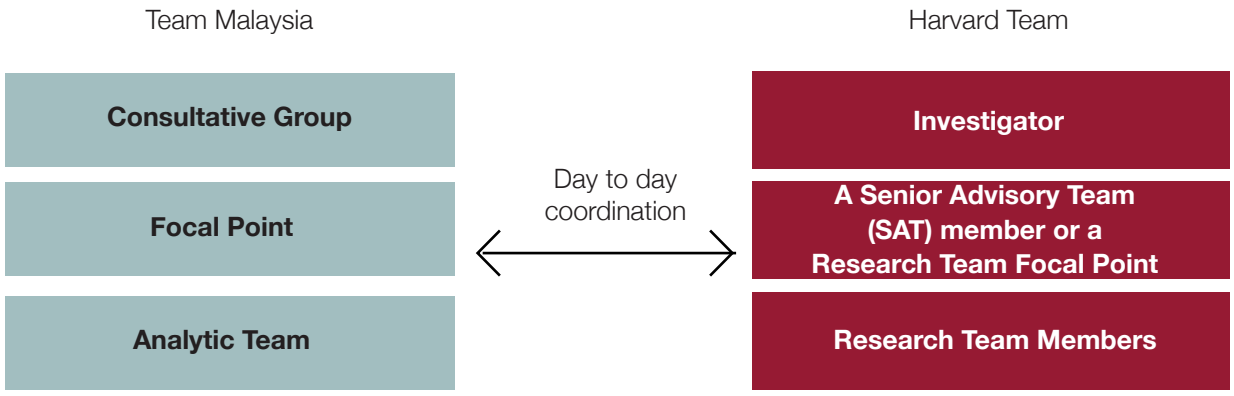

Figure A1.2. Malaysia Health Systems Research (MHSR): Team Malaysia Structure

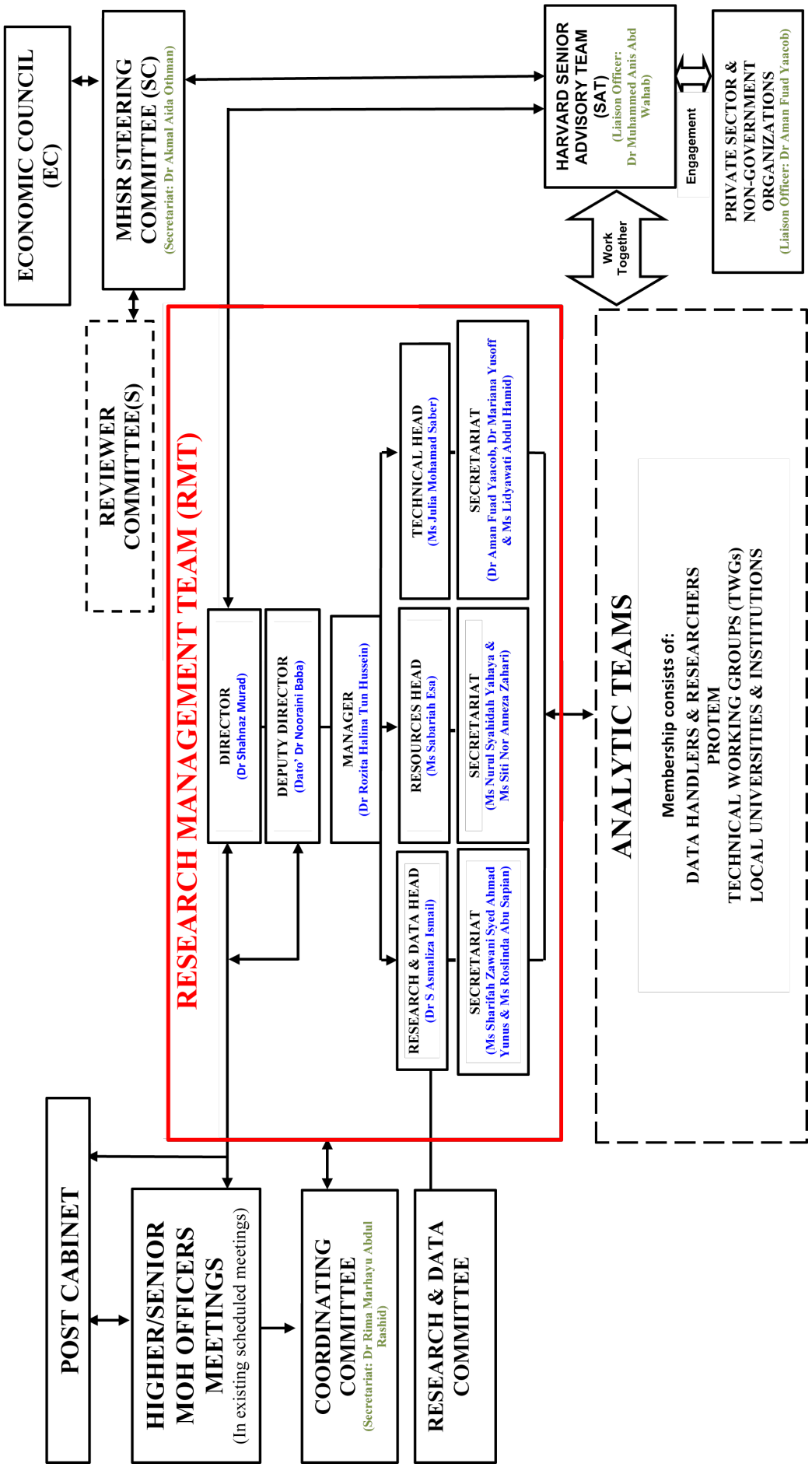

Figure A1.3. Malaysia Health Systems Research (MHSR): Harvard Team Investigators and Focal Points