

Challenges and Opportunities in Transforming Malaysian Health Care through Integrative Strategic Planning: *A Case of Malaysian Healthcare Organization in the Post-Covid Environment*

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ABSTRACT

The answer to address these challenges is one where a vision of the future in which new business and care value-based delivery models, aided by digital technologies, may help to solve today's problems and to build a sustainable foundation for affordable, accessible, high quality healthcare. This vision requires a paradigm shift in focus away from a patient-centred care (sick care) to one of person-centred care, which supports wellbeing, prevention, and early intervention. The integration of all health sectors, into "clusters" of public-private healthcare service providers, is driving innovation to be more equitable, accessible, and affordable. This conceptual paper will explicate the experience of Malaysian Government through its Ministry of Health in containing Covid-19 outbreak in Malaysia.

Keywords : Covid-19, pandemic, big-data, telemedicine, sustainability

1.0 INTRODUCTION - THE MALAYSIAN HEALTHCARE LANDSCAPE

A healthcare system consists of physical facilities, human resources, medical technologies (medicines & devices), and the institutions related to the financing, regulation, and delivery of healthcare. It exists to provide personal medical services to a population. Challenges are increasingly complex, often spurred by changing demographics and epidemiological profiles, emerging and re-emerging diseases, economic volatility and increasing healthcare cost, among other factors. At the same time, with rapid socioeconomic development, comes a corresponding rise in people's expectations and demands for more and higher quality health services.

Malaysia is home to among the world best healthcare systems that has been steadily grown over the last 5 decades. Healthcare in Malaysia operates on an efficient and widespread two-tier system, consisting of a government-run universal healthcare system that serves Malaysian citizens, and a co-existing private healthcare system that boast among the top destination for international patients and locals alike. A robust pharmaceutical and gloves manufacturing industry strategically situated to feed the global supply chain is another of Malaysia's success in the healthcare landscape (Vicknesh, 2021). Malaysian hospitals house among the best talents in Asia, providing a variety of procedures at competitive rates and an easily accessible, affordable primary care has improved many WHO (World Health

Organisation) indicators that places Malaysia among the top countries for healthcare. The Ministry of Health Malaysia is the key player in governing healthcare in Malaysia.

2.0 THE VISION AND MISSION

The vision of the Ministry of Health Malaysia is towards strengthening a healthcare system that is equitable, affordable, efficient, utilising appropriate technology, ensuring environmental sustainability and customer-friendly with due emphasis on quality, innovation, improved health status and respect as well as to encourage individual responsibility and involvement to improve quality of life.

Whereas, the mission of the Ministry of Health Malaysia is to ensure services delivered by healthcare providers are of high quality, efficient, effective, and comprehensive and fulfils the customers' expectations. This will be achieved through a structured planning, monitoring, coordination, evaluation, and regulation, coupled with continuous measures of improvement relevant to the current developments in the medical field. Ministry of Health Malaysia will also ensure that services are provided by committed, compassionate, ethical, skilled, and professional personnel through implementation of continuous professional development activities. Patient safety and quality care will always be a priority.

To achieve the vision and mission, key strategies were formulated and implemented. The Covid-19 pandemic was the trial of fire for Malaysian healthcare planners. The strategies were developed through deep analysis, expert reviews and consensus building to align with the national and global development goals to deliver world class healthcare to the citizens. The outlined strategies as follows:-

- Strategy 1 — strengthen healthcare services delivery in hospitals,
- Strategy 2 — optimise resource management including facility, equipment and financing,
- Strategy 3 — enhance capacity and capability of human resource for health,
- Strategy 4 — strengthen governance and stewardship of healthcare system,
- Strategy 5 — strengthen safety and quality in delivery of healthcare system,
- Strategy 6 — leverage the use of information technology to improve efficiency
- Strategy 7 — promote safe and quality practices of traditional and complementary medicine.

The Malaysia Ministry of Health has taken strategic planning steps that leads to re-engineering of processes in managing facilities and patient care. These plans include the implementation of hospital cluster, lean organization, and the use of case-mix system in performance and financial management. Each Cluster Hospital is formed through a combination of several hospitals in the same geographical location by involving at least one specialist hospital. Through the establishment of a cluster hospital, all resources including human resources, expertise, equipment, facilities, and other resources can be optimized and shared by these hospitals (KKM, 2016).

Lean management practices have facilitated hospitals to streamline work processes and procedures to enhance effectiveness and efficiency. This include optimising bed management, robust operation theatre scheduling, and promoting best practice treatment. This experience in “clustering” was beneficial in effectively handling the response to the pandemic and ushering the new normal of the future. Malaysia healthcare leaders relied on its vision, mission, and key strategies to achieve success (Nurul et.al, 2020).

The pandemic of the century, Covid-19, is the black swan of 2020, has disrupted the global socio-economic fabric along with causing widespread health concerns. The Corona Virus, first detected in 2019 in Wuhan, China has now spread worldwide infecting over 11 million and causing almost 500,000 deaths. COVID-19 spread through respiratory droplets is thought to spread mainly through close contact from person-to-person causing acute severe

respiratory distress in susceptible individuals. Some people without symptoms may be able to spread the virus causing exponential growth of infected persons. This has caused an unprecedented worldwide lockdown as a response to fight to flatten the epidemiological curve to save as many lives as possible and create a reserve capacity of intensive care units. Social distancing, personal hygiene measures and contact tracing are among the recommendations given by WHO which was followed by majority of the countries.

Malaysia's effort to control the transmission of COVID-19 has shown favourable result. According to the latest statistics at the time of writing, cases stood at 21 per 100,000 Malaysian population, lower than other developed countries such as Singapore, US, UK, Italy, and France. Mortality rate COVID-19 was 1.6% of total cases compared to countries like France (15%), UK (14.3%) and Italy (14%).

Malaysia has faced global pandemics with SARS in 2010 and MERS-CoV in 2015 and has experience in dealing with these situations. Malaysia had studied and prepared its surveillance and mitigation plan enhanced by previous experiences to face challenges in the future which has now proven to be among the best options. Its key strategy formulation and implementation plans would prove invaluable. When the pandemic struck Malaysia, there was a national task force formed to fight the pandemic. The task force looked not only into the crisis management of day to day operations, but also strategic planning to utilize resources in the country and abroad to overcome the challenges.

The Ministry of health leveraged its lean healthcare delivery system honed over the last 5 years took the lead in executing its crisis management plan. First there was enforcement of lockdowns and social distancing advice. Followed by contact tracing and mass testing and designation of special hospitals to cater for these patients. MoH was proactive and sought help from China early on to learn from their experience and adapting it to our needs. Personal Protective Gear and Test Kits was in shortage due to the global simultaneous high demand was a challenge faced by many countries.

Malaysia being among the top exporters of gloves was able to supply enough for local needs and export. Utilizing its reserve capacity of doctors and nurses, MoH was able to deploy rapidly its teams to assist in screening in many locations. Daily briefing was handled by the Director General of Health to reassure the public and provide motivation to the front liners. The Crisis Preparedness and Response Centre (CPRC), Hospital Services was established in March 2020 at Ministry of Health Headquarters at Putrajaya (Abdullah, 2020).

The crisis centres also known as the "war room" was equipped with latest technology to assist the national response to the pandemic. The Centre was established to facilitate decision making during crisis as well as to command and control the response at the state level especially in preparing hospitals to deal with surge of cases. Recognising that power of Big Data and Cloud computing, a new IT platform was developed to facilitate data collection and analysis was displayed on a special dashboard empowering public health specialist and decision makers.

40 hospitals including 2 university hospitals were identified and designated as COVID-19 hospitals. 26 Low Risk Quarantine and Treatment for step down care centres for asymptomatic and mild cases were also established including a centralised temporary facility at Malaysia Agro Exposition Park Serdang (MAEPS). The establishment of MAEPS Centre was headed by National Disaster Management Agency (NADMA). The Ministry of Health was a key stakeholder in planning and running the facility with support by various agencies especially the Malaysian Armed Forces. The total capacity of all COVID-19 hospitals and the Quarantine and Treatment Centres reached more than 9,200 beds in April 2020.

The Ministry of Health also managed to increase the capacity of laboratories and contributed significantly to improve turnaround time for COVID-19 diagnostics and thereby improving the efficacy of the screening programme. Capacity of intensive care units was also enhanced during COVID-19 which included repurposing areas within the hospital to

accommodate patients requiring intensive care. The Ministry of Health capacity building was enhanced through central purchasing of various equipment for the pandemic such as ventilator, PPE, x-ray machine, ICU beds, patient monitoring sensors and many other items. This strategic move has helped the State Health Departments and hospitals to be better equip their facilities to respond to the Covid-19 pandemic.

Issues and challenges remain in a post pandemic world for which the key strategies come together to solve. The challenges provide an opportunity for transformation through execution of a well-planned strategy that addresses short term and long-term goals.

3.0 CHALLENGES AND OPPORTUNITIES

1. Increasing economic burden and financial constraints

The sustainability of Malaysia's healthcare system and its ability to meet the needs of the population given that the demands on the healthcare services is increasing with the change in socio-demographic, economics as well as evolving disease factors, requires deep understanding of the problems that are faced and the capabilities required to address them. There are several issues and challenges in ensuring the financial sustainability of the healthcare system as well.

According to the Ministry of Health Malaysia, the national total health expenditure (THE) stood at 4.24% of GDP in 2017, of which 2.2% came from the government's expenditure. World average of THE is between 9.4 – 10.0% of GDP (2010 – 2016) (The World Bank, 2018). The public sector contributed 51% of THE and private sector contribution was 49% of THE. Out-of-pocket (OOP) spending accounted for a significantly high proportion of 38% of THE. 70% of THE was spent on treating patients' services with remainder spent on other functions of healthcare such as public health services and administration.

The escalating private healthcare cost is also a major concern as a lack of regulation of fee, the cost of healthcare at private sector facilities could potentially burden the people and healthcare systems. When severe and chronic illness befalls a family, it can lead to financial ruin and poverty. Hence Ministry of Health Malaysia facilities act as a safety net for all citizens where subsidized high-quality care can still be accessed. This Safety Net that citizens enjoy come under budgeting and funding pressures.

The post Covid-19 world creates an opportunity for a new national healthcare financing scheme and insurance. This policy will ensure the availability of funding for the plans to be implemented by the strategies formulated. National planners need to keep in mind of the economic cycles of recessions that may occur and pose a strain on the health budget and strategically plan to avoid service disruption. The citizens can also help reduce the funding the pressures by not misusing the services provided and taking more self interest in maintaining one's own health status and being compliant to the care plans provided. Reducing waste by the facilities, pooled purchasing of pharmaceuticals, cost management in programme and facilities development can maximise the available budget in delivering better healthcare.

2. Increasing burden of non-communicable diseases

The prevalence of non-communicable diseases (NCD) continues to rise in Malaysia, and it is among the highest in ASEAN countries. It has been found that 1 in 5 adults in Malaysia has diabetes or equivalent to 3.9 million population. The 2019 National Health and Morbidity Survey (NHMS) reported that the trend of diabetes has increased from 11.2% (2011) to 13.4% in 2015, and 18.3% in 2019. Also, 3 in 10 adults or 6.4 million people in Malaysia have hypertension and only half of them are aware they have the disease. While 4 in 10 adults or 8 million adult Malaysians have hypercholesterolemia, 1 in 4 of them are not aware of their disease.

Cardiovascular diseases such as stroke and coronary heart diseases, are the leading causes of death in Malaysia and 1.7 million Malaysians are currently living with three major risk factors which are diabetes, hypertension and hypercholesterolemia. Cancers are also among the top five causes of death in Malaysia. The strategies to enhance the primary care centre to screen, detect, treat or refer early these patients is the way forward in fighting the silent “pandemic” that is prevalent. Upskilling care providers along with increasing public awareness of NCD’s is another strategy to reduce this burden.

The Covid-19 experience has made more Malaysians aware of the importance of health as a lifelong asset. Awareness and being more proactive in leading healthier lifestyle is the simplest mode possible for the citizens to help overcome this challenge. Increasing sicker population, lowers productivity and drains financial coffers. Working together with NGO’s and other government agencies, health promotion activities, advisory and training can be provided by Ministry of Health Malaysia to further combat NCD’s. Healthcare providers are updated on the latest treatment protocols through a continuous professional development programme, so the patient can receive the benefit from advancement in managing their diseases and enjoy a better quality of life.

3. Emergence and Re-emergence of infectious diseases

Malaysia is facing a double disease burden challenge where communicable diseases co-exist with NCDs. The incidence of selected communicable diseases such as dengue, tuberculosis, HIV / AIDS, and some vaccine preventable diseases in particular polio and diphtheria is also on the rise. Threats from new emerging infectious disease require vigilance and a swift and decisive response. Constant surveillance is required as there is a large foreign worker pool, many undocumented without having undergone stringent health checks prior to employment.

In a globalised worlds, where diseases do not respect national boundaries, capacity in disease surveillance, prevention, control and response system still need to be further strengthened to meet the challenges brought by changing disease patterns as seen with the recent global outbreak COVID-19. Ignorance by anti-vaxers and employers who do not provide adequate hygienic living quarters for foreign workers confound this problem.

The pandemic has reemphasised the importance of decisive action in controlling infectious diseases which can not only collapse national healthcare systems but also the economy, triggering another cycle of poverty and disease. Infectious diseases can pose a national security threat; hence, multi-agency involvement is necessitated in terms of providing surveillance, border security, workplace enforcements and data sharing. The efficiency of contact tracing during this pandemic proves the well-planned strategies that has created a quickly deployable, trained, and efficient teams to screen and identify patients has been well justified.

4. Inadequate and Aging facilities and equipment obsolescence

Physical infrastructures such as buildings, medical equipment and non-medical equipment are essential to ensuring the safety, quality, and effectiveness in delivering healthcare services. Numerous health facilities including administrative buildings, staff housing, hospitals, health clinics, stores, pharmacies, laboratories, kitchens, waste disposal and training facilities, need to be maintained and refurbished optimally.

Old medical equipment especially those beyond economic repair, including ambulances needs to be replaced to keep up with the latest safety features, development of technology and good clinical practises. Sound investment in medical equipment will not only promote patients’ safety and better clinical outcome, it will also promote cost effectiveness in medical treatment or interventions.

By reducing the suboptimal facilities and equipment, care can be provided in a safer environment. This also reduces the maintenance cost relieving some of the financial constraints which then can be used towards patient care. A new healthcare financing scheme would also be able to provide criss-crossing opportunities, where the latent capacity of the private sector can be unlocked reducing waiting time for patients and optimising resources in both public and private sectors. This also reduces the cost to the government in constantly having to build newer facilities, staffing them and acquiring newer equipment. Repurposing of facilities and rerouting of patients as done during this pandemic is only a short-term measure, in the long term smart public-private partnerships will result in safe and well equipped and staffed facilities.

5. Healthcare provider management

There is insufficient and unequal distribution of human resources particularly specialists between public and private sectors. Increasing workload associated with growing population, rapid urbanisation and greater complexity of diseases has put the healthcare system especially its talent force under pressure in meeting with the needs of the population and their expectations. Human factors such as the quality of work life of staff, stress and fatigue, communication issues and teamwork are areas that need to be effectively addressed. Upskilling of care providers through structured programmes and certification enhances the capability of the care delivery.

Subsidized training programmes, easily online learning and opportunities to do short attachments allow health care professionals to become more proficient in doing their duty. Yearly licence renewal and national registries has been made online making it easier for the providers to be accredited. The national database of credentialed dataset makes it easier for strategic planning in deploying and training. It also creates a transparent environment where foreign medical tourist can review and gain confidence of the skilled practitioners available in Malaysia. The brain drain can be minimized with adequate incentives and remuneration provided to healthcare professionals. Equally important is creating a pool of skilled allied health and technical staff to assist doctors and nurses in providing quality care. The cluster hospital programme is an example on how strategic planning can cater for increasing needs using available resources and optimising use of underutilized facilities and skills.

6. Rapid advancement of technology

There is an increase in demand for e-commerce, e-government services and virtual health services such as home doctor services through apps, internet pharmacy, teleconsultation and others. This is because patients find it convenient, cost efficient and time saving. However, currently there is no mechanism to ensure that clients obtain quality services from qualified practitioners and issues related to patient's confidentiality and ethics. Social media has been abused to spread false claims and negativity on use of medicines, vaccination and other treatments.

With the proliferation of devices (smartphones, wearables, drones) and Internet of Things (IoT), big data analytics and artificial intelligence, issues pertaining to safety, privacy and confidentiality, data governance and expertise need to be given attention. The pandemic has given a boost to telemedicine, doctor booking apps and self-screening tools. The fear of privacy leaks which held back widespread adaptation of these technologies has been significantly reduced as the citizens are becoming more accustomed to self-screening, scanning QR codes and planning visits (Koh, 2020).

Implementing Electronic Medical Records is a way forward with a lifetime health record of the citizen being created and big data analytics can be done for research and better management. Apart from a small percentage of MoH hospitals and health / dental clinics in the country are equipped with electronic medical records. The systems include Health Information

System (HIS), Tele Primary Care (TPC) and Oral Health Care Information System (OHCIS). Vertical and horizontal integration is yet to be fully achieved which includes public private data sharing platforms and health data warehousing. Moving forward, Malaysia must benchmark against best practices in other developed countries. Big data and real-world clinical evidence are transforming healthcare in this era and the country needs an integrative system that can capture and manage data for purposes of understanding the burden through means of registries, robust disease surveillance, patient care performance indicators, health economics and such.

ICT equipment and systems that are obsolete needs to undergo technology upgrades. Approximately 75% of MoH hospitals and more than 90% of medical and dental clinics are manual. Private sector however is mixed, with large corporate run facilities having the latest equipment while those run through sole proprietorship are mostly on manual process. The covid pandemic has shown how useful a centralised reporting structure through point source electronic capture of data can provide a real time overview of the crisis and responses to mitigate can be appropriately undertaken. The manufacturing of medical devices and personal protective equipment has increased placing Malaysia as a world leader in this segment. Building on this capability will further bring in additional export revenue for the nation and by economies of scale bring down costings for these items to be procured locally.

7. Stewardship and governance in healthcare

Stewardship is one of four functions of a health system, apart from other functions such as financing, resource generation and service delivery (World Health Organization, 2013). As envisaged by the WHO, stewardship focuses primarily on “the state’s role in taking responsibility for the health and well-being of the population and guiding the health system as a whole” (Travis et al., 2002). Ensuring good governance and stewardship will continue to pose a major challenge in any national health system.

Malaysia has been blessed with a talented governance structure of highly competent and visionary leaders that are able to plan and execute the strategies that leads to healthy communities. This has been well witnessed during the pandemic, where Malaysia’s efforts have been hailed by many countries and DG has been accorded international recognition. This is a testament to years of planning and preparation that showcased the robustness of the healthcare system. With increasing technology use in patient care, legal advancements in terms of privacy laws and ethics needs to be improved. Better legal protection for both the provider and patient is required. Staying on the forefront of evidence-based medicine, clinical research and development needs to be kept in focus and guide policy.

Good governance and stewardship are further enhanced with consulting and collaboration with other ministries to adopt best health and safety policies that promote public wellbeing. Embedding talent from other ministries to improve intra government coordination and cooperation as well as acquiring new knowledge and skillsets further enhances the human capital and service delivery. Transparent and thrifty procurement procedures preserve financial capital that can be maximized for the greater good of the patient. Integrity and accountability measures that are reinforced among the ranks goes a long way in providing quality care that is sustainable and creates trust. A strong corporate culture promoting a caring attitude and readiness to help is the essence of the good governance found at the Ministry of Health.

4.0 CONCLUSION

The ministry of health strategic plan in providing medical care is through strengthening, enhancement and consolidation of medical services that will overcome the challenges before

it. In continuing a transformative framework strategy three broad principles to be kept in mind are:

- 1) Sustaining successful implementations and to replicate to other areas of need
- 2) Reviewing and revising previous strategies which were ineffective to address unresolved issues, to reengineer processes and revamp procedures that holdback progress
- 3) Developing new initiatives to address new or emerging issues. Being bold in policy formulation and governance.

Moving forward in a post covid world, measurable main outcomes that can be tracked is a sustainable, equitable and affordable healthcare system in terms of financing cost, reduction in preventable mortality and morbidity, introduction of patient centric integrated care and widespread adoption of healthy living.

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Author's Short Biography

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