Health systems under scrutiny:

Systems thinking to support health policy development in Malaysia

POLICY BRIEFS

Derived from

Systems Thinking Analysis for Health Policy and Systems Development: A Malaysian Case Study

The Malaysian Health System: HIGHLIGHTS of the 60-year evolution: THE BIG PICTURE

The systems thinking analysis of Malaysia's health system's 60-year evolution identified key features that contributed to its relative success towards achieving Universal Health Coverage (UHC). Lessons from these experiences contribute to Policy Brief #1 to address current challenges arising from the dichotomous public-private healthcare system and to Policy Briefs #2 and #3 to address the epidemic of obesity and hypertension.

Key features in Malaysia's development included:

- National policies prioritised social and human development.
- Political stability and economic growth supported health goals that improved the population's health status, contributing to social and economic development.
- The public sector led the way towards the goal of **equitable access** to health services.
- The public sector health services funded by a progressive tax system provided care with low user fees protected the population against catastrophic expenditure on health care.

One notable outcome is that on current indicators, Malaysia has largely achieved UHC.[1]

The Evolution of the Health System

The health system was **designed** inherently as a 'learning system'. The flexible design provided

[1] UHC: "all people and communities can use the promotive, preventive, curative, rehabilitative and palliative health services they need, of sufficient quality to be effective, while also ensuring that the use of these services does not expose the user to financial hardship." World Health Organization https://www.who.int/news-room/fact-sheets/detail/universal-health-coverage-(uhc)

for corrections and shifts in strategies. Three critical design features are:

1. **good feedback data** based on geographic regions and administrative states and districts that supported the analysis of differentials in access, use and outcomes of health care,
2. a system that was **responsive to stakeholders' demands,** mainly through **imaginative leadership** in the Ministry of Health, and
3. system **flexibility** enabled shifts in strategies.

The system's functional development occurred in incremental steps; each step built on previous achievements. In summary, the focus of development moved from *access* during the initial 20 years, followed by *quality* in the next 20 years and *responsiveness* during the most recent 20 year period.

In health services delivery, close linkages existed between primary, secondary and tertiary healthcare and with disease control programmes and environmental health services. These linkages were manifestly beneficial to each other. Furthermore, the **enabling sub-systems**: human resources, medical products, information, and finance, aligned themselves closely with service delivery and supported development.

Outcomes of the health system are demonstrable, for example:

- Relatively good health status: Life expectancy 74.9 (F) 69.9 (M). Infant mortality 7 per 1000 live births,
- Relative success in containing the SARS Covid 19 pandemic during the first nine months.

Addressing Two of the Current Key Challenges

Challenge #1: A hybrid system of public-private financing & service delivery for healthcare.

Benefits of the hybrid system in Malaysia:

- Private sector Primary and Secondary Healthcare catered for wealthier individuals, thereby enabling the public sector to focus on equity and function as a safety net for the poor and vulnerable.
- The public healthcare sector is well placed to address social goals but is bound by centralised rules, such as human resources, centralised budgets and financial management. In contrast, the private healthcare sector has greater agility in mobilising capital investment and expertise for specific requirements, such as clinical waste management.

Challenges of the hybrid system

- Market forces govern the growth and form of the private healthcare sector, and as a result, the private sector may or may not align with national healthcare goals and population health needs.
- An underlying feature of the parallel sectors is that planning is fragmented. Policies are disjointed, leading to a tendency to frequently overlook the impact each sector has on the other.
- There are barriers in health service delivery between the two sectors, for example, in communication, management of human and financial resources and assets, and sharing of information.
- The hybrid system shapes the health and financial outcomes of the health system as a whole and, ultimately, impacts the attainment of UHC.

Some less than desirable features

- Inadequate continuity and effectiveness of care for NCDs when patients move between sectors.
- Brain drain, particularly of higher-level expertise, from public sector to the private sector.
- MOH has conflicting roles in providing service in the public sector while undertaking governance of similar services in the private sector that might be in competition with the MOH services.

Key conclusion:

- Because patients and the health workforce move between the public and private sectors, **policy decisions for one sector impact both sectors.**

Effective regulation for integrating policies and planning for public and private sector financing and service delivery is essential.

Challenge # 2: Factors outside the health system have a critical influence on health.

Many factors that arise in the social, economic and physical environment influence human behaviour. Unhealthy behaviour contributes to the risk of disease. For example, human behaviour contributes to obesity and physical inactivity.

- Obesity and physical inactivity are two major risk factors contributing to diabetes and high blood pressure. If not managed adequately, these conditions result in medical complications that could require complex and expensive treatment and shorten the years of healthy and productive life.
- Factors such as the environment in places of residence, work, school, commuting conditions, eating, and food habits are examples of social, physical, and economic imperatives that influence lifestyles. Health promotional initiatives aimed at reducing obesity and increasing physical activity could be hampered by the inability of target populations to adopt or sustain the desired behaviour because of environmental and social barriers.

The health sector needs to provide strategic leadership for the relevant sectors that have responsibility and authority to produce conditions conducive to changing human lifestyle and behaviour.

Policy Responses required to address these challenges.

Strengthening the governance of the public/ private dichotomy for healthcare

- *Policy response # 1*: Integrated financial policies and regulations for the public and private healthcare sectors
- *Policy response # 2*: Integrated service delivery policies and regulations for the public and private healthcare sectors towards:
  - Better prevention and management of illness in public and private primary care
  - Addressing gaps in effectiveness and efficiency in public and private secondary care

Mobilising sustained multi-sector, multi-actor action to support behaviour change

- *Policy Response #3*. Strategic leadership to address barriers for changing population behaviour related to unhealthy lifestyles.

Systems thinking analysis of the Malaysian Health system's historical development provides **evidence from experience** to support these policy responses. The accompanying Policy Briefs summarise the issues, the evidence and the policy responses.

Reference: Martins, J., Pathmanathan, I., Tan, D., Lim, S., & Allotey, P. (Eds.). (2021). *Systems Thinking Analyses for Health Policy and Systems Development: A Malaysian Case Study*. Cambridge: Cambridge University Press.

Integrated financial planning across public and private healthcare for Universal Health Coverage

Key Message

It is necessary to address the dichotomy between the public and private sectors regarding sources of funds and payment mechanisms to sustain the social efficiency[1] of healthcare in Malaysia.

Importance of issue

The rigid public/private dichotomy is a threat to the Social Efficiency of Healthcare

Malaysia's progressive-tax and revenue funded public healthcare sector provides affordable access to Universal Health Coverage (UHC). The private healthcare sector alleviated the government's financial burden by catering to society's wealthier sections who self-funded or had employer support. (Graph 1.1). Thus, despite a relatively high out of pocket payment (OOPP), the household financial burden is minimal.[2] The public healthcare sector provides a fall-back option when paying for private healthcare becomes a significant financial burden.

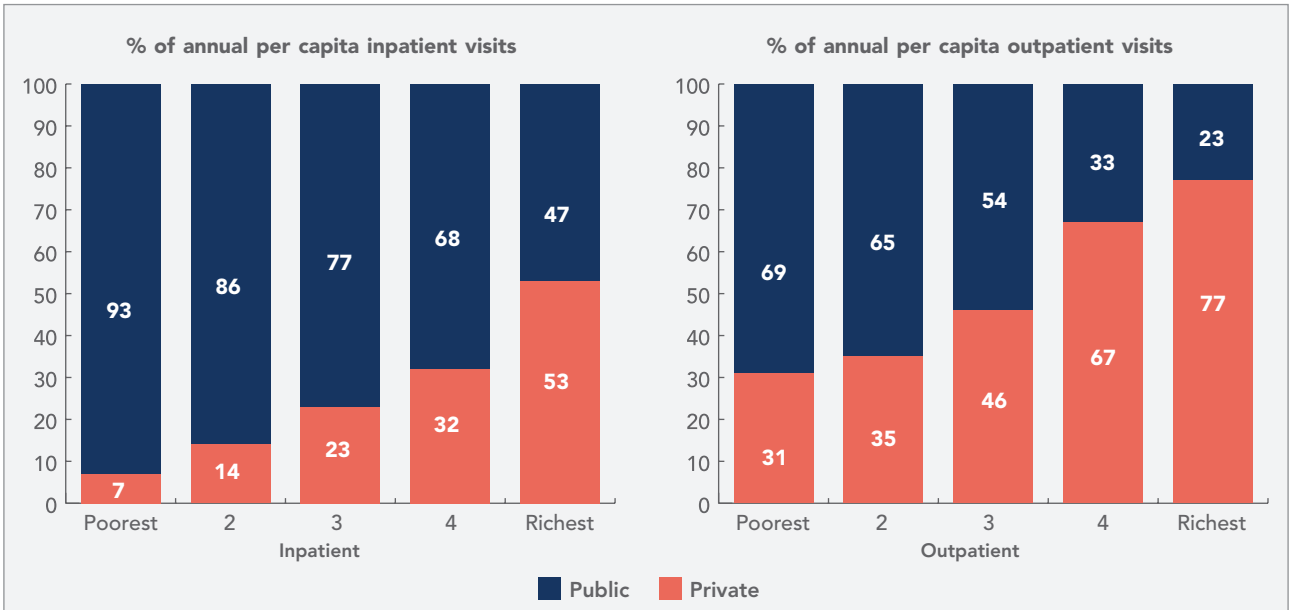
The private healthcare sector is expected to continue to expand rapidly, partially fuelled by increasing purchasing powers of Malaysians, increasing uptake of private health insurance and government incentives to promote health tourism. This profit motivated health sector is likely to contribute to rising OOPP, total health expenditure, supplier induced demand, extraction of profits and cost shunting to the public sector.

Future shocks to the Malaysian financial system, such as an economic downturn or demographic shifts, would cause a shift in demand from the private healthcare sector to the government subsidised public healthcare sector.

[1] Social efficiency is "optimal distribution of resources in society, taking into account all external costs and benefits as well as the internal costs and benefits." Tejvan Pettinger. Sept 2019. https://www.economicshelp.org/

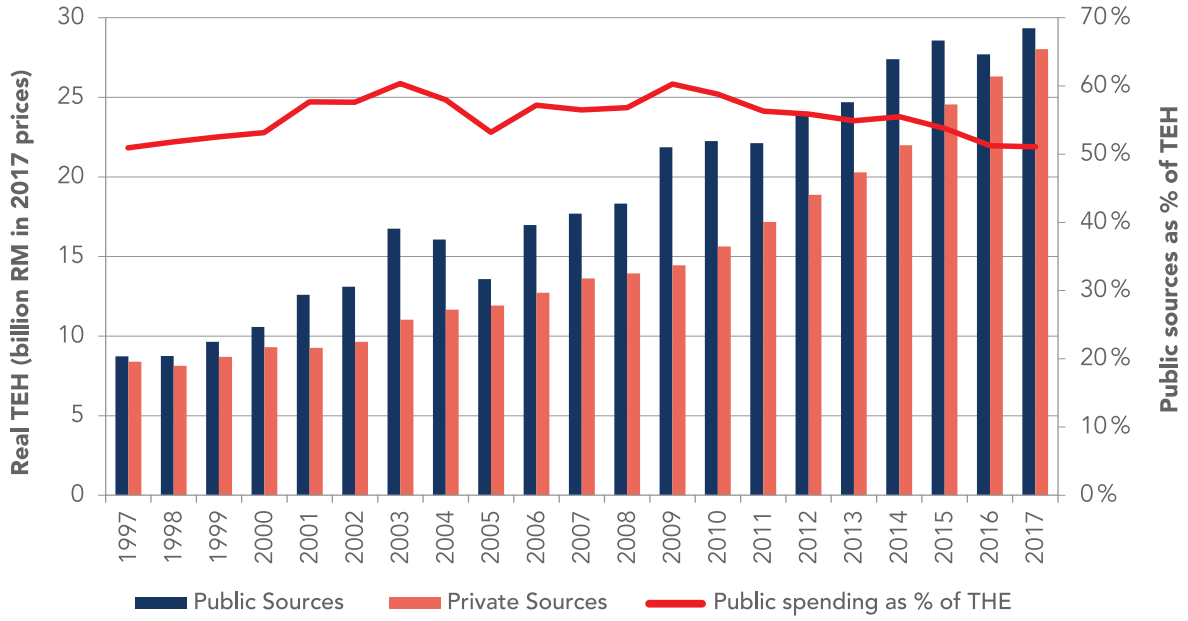
[2] In 2009, on average, OOPPs for health made up only 1.1% of the average household expenditures, with the poorest quintile of households committing only 0.7% of household expenditures to pay for health care and the richest households a 1.5% share (Health Policy Research Associates et al., 2013; p. 32)

Figure 1.1 Composition of healthcare utilisation by public and private sectors, by SES quintile, NHMS 2011



Source: Health Policy Research Associates, Institute for Health Systems Research & Institute for Health Policy. (2013). *Malaysia Health Care Demand Analysis. Inequalities in Healthcare Demand & Simulation of Trends and Impact of Potential Changes in Healthcare Spending*, Kuala Lumpur: Institute for Health Systems Research.

Figure 1.2 Public and private health financing sources, Malaysia, 1997–2017.



Source: Ng, C.W (2021). Health Financing. Chapter 9 in Martins, J.M., Pathmanathan, I., Tan, D.T., Lim, S.C and Allotey, P. (editors). Systems Thinking Analyses for Health Policy and Systems Development. A Malaysian Case Study. Cambridge University Press.

Suppose the growth of the private healthcare sector outstrips that of the public healthcare sector. In that case, the public healthcare sector's capacity to provide an effective safety net is likely to be overwhelmed in the face of increased demand for subsidised care. The COVID-19 pandemic demonstrated this scenario, triggering the exceptional use of public funds to purchase private sector resources.

It is possible to explore the potential impact of various scenarios that cause a certain percentage of patients to shift treatment from private to government centres using foresight tools.

Box 1 An illustrative example of creating future scenarios for healthcare: scenarios for COVID-19 vaccines

Health intervention	Potential scenarios of healthcare demand in different types of economic recovery	
	Rapid: V-shaped	Slow: U-shaped
If vaccines are unable to contain COVID-19 pandemic	Long-term pressure on public in-patient facilities	Dual-threat to public healthcare capacity
If vaccines contain the COVID-19 pandemic	Return to status quo healthcare demand	A shift in M40 preference toward public healthcare

Constraints: Policy Makers Face Barriers

The public sector budget for health is relatively small, and Malaysia's health expenditure is relatively low in relation to GDP.

For several years, the Ministry of Health (MoH) has recognised the need to expand funding sources for healthcare and championed pooled funding mechanisms. However, it has not come to fruition.

The rigid public/private dichotomy restricts the public healthcare sector's ability to mobilise private healthcare sector human resources and infrastructure. This is being demonstrated once again by measures taken during the on-going Covid 19 pandemic.

Evidence from past experiences

Two examples demonstrate successful bridging of the public/private dichotomy and the ensuing benefits. In both cases, public healthcare sector funds purchased services from the private healthcare sector instead of investing in public healthcare sector infrastructure and human resources; this unlocked private capital investment in the face of limited public healthcare sector funds for capital investment. The key was

the guarantee that public healthcare sector funds would subsidise future services provided by those private entities.

Dialysis care: public healthcare sector purchase of private healthcare sector services

Increasing numbers of patients requiring renal dialysis threatened to overwhelm the public healthcare sector's capacity and stimulated the creation of a successful scheme to utilise private healthcare sector resources. Key features of the scheme included a detailed economic analysis underpinning its design together with other critical design features that ensured:

- All potential providers had a level playing field.
- The money followed the patient.
- Data collection and analysis, and good governance measures, ensured improved quality and efficiency with a price reduction.[3]

Outsourcing of Clinical Waste Management

Haphazard disposal of clinical waste in public hospitals was a growing concern, but budget constraints prevented the investments needed for effective Clinical Waste Management (CWM). Private investment in equipment, materials and human resources were mobilised successfully to establish a CWM. The public healthcare sector provided the technical expertise to build private contractors' capacity, establish protocols, and subsequently pay for the long-term provision of the services. The critical features of this scheme included:

- The public healthcare sector needed to boost its capacity for monitoring the performance of private contractors.
- The scheme included a contingency clause that enabled the public healthcare sector to switch to alternate contractors if the private healthcare sector contractor's service remained substandard.
- A key challenge was how to ensure that the contractors' need to turn a profit to meet shareholder expectations would not override public health interest in the future.

[3] However, there is a caveat to this scheme. The continued rapid increase in the numbers of patients requiring renal dialysis might make this model unsustainable.

Policy directions

Refining existing policies and determining new policy options would optimise the resources available in the country.

Refining Policy Directions

The government needs to review and decide on several basic policies, such as

- The per cent of GDP that government should pay towards healthcare.
- The use of public monies to pay for the provision of private healthcare services.
- Interventions to reform private health insurance and the fee-for-service mechanism in order to improve efficiency.

Failing to make a conscious decision on these critical issues could be viewed as endorsing the current situation and contributing to continued inefficiencies.

Policy Options

The options given below are NOT mutually exclusive.

- **Calibrate a balance between public and private financing:**

Expand the public healthcare sector's capacity to keep pace with private healthcare sector growth to ensure sufficient capacity to deal with alternate economic scenarios and demographic shifts.

Benefit: this would ensure that the public healthcare sector continues to set the agenda and priorities.

Challenges: There will be competition for:

a) limited tax resources (from other publicly funded initiatives),

b) skilled human resources (from the private healthcare sector).

- **Develop funding** mechanisms for the private healthcare sector that remove the dependence on OOPP.

This policy brief recognises that the Government and MoH have invested considerable effort in designing potential alternate funding mechanisms and supports the intent that underlies those efforts. It identifies the following key benefits and challenges moving ahead.

Benefits:

a) Unlocks healthcare resources in the private healthcare sector.

b) Breaks down the barrier to public funding for private healthcare services, thereby increasing access and providing better equity and quality of care.

Challenges:

a) Will require major policy interventions to reshape the health care market since private insurance uptake currently is low.

b) There is the risk of increased utilisation of both public and private health care services resulting in increased expenditure.

c) Public sector will need to act as a price anchor.

d) The existing public perception that public tax-funded health care services have no cost.

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Integrated policies for health service delivery in the public and private sectors

Key Message

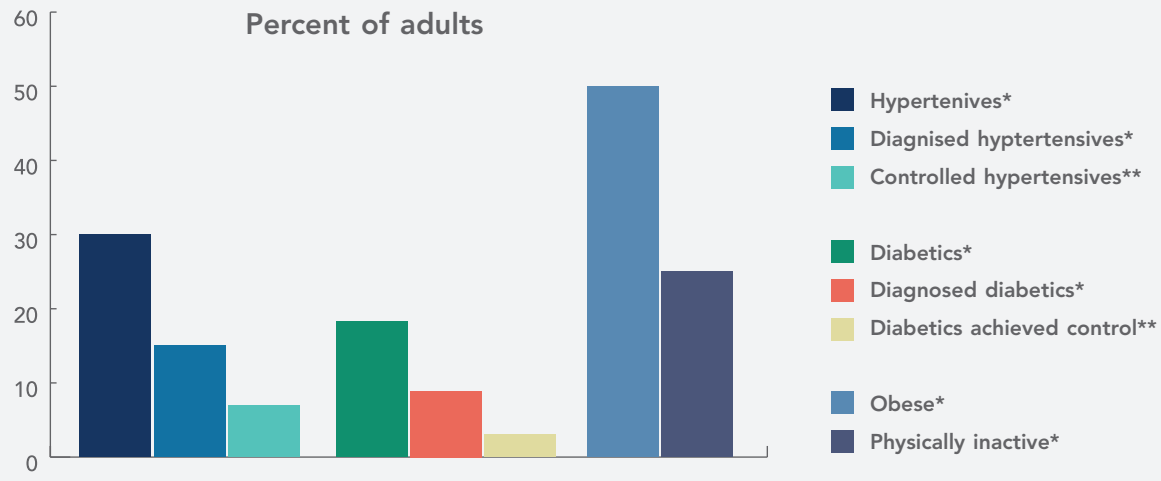
The public/private dichotomy in service delivery prevents the optimal use of the available national resources to manage much of the disease burden, particularly from non-communicable diseases (NCD). This policy brief uses the national epidemic of cardiovascular disease (CVD) and diabetes mellitus (DM) to illustrate the issues and suggest policy adjustments. The CVD/DM epidemic, together with the ageing population, will demand increasingly expensive hospital care. To reduce the financial and social burden of hospitalisation, the management of CVD, in particular, hypertention (HBP) and DM outside of hospital settings needs improvement. The integration of policies for delivering and monitoring healthcare services in the public and private healthcare sectors and communities would improve management.

The problem

Malaysia has a high prevalence of **uncontrolled** hypertension (HBP) and DM that lead to hospitalisation for avoidable complications.

Gaps in delivering relevant services for DM and HBP contribute to the problem, as does human behaviour (Policy Brief #3).

Graph 2.1: Prevalence of hypertension, diabetes mellitus, obesity and physical inactivity



* Institute of Public Health. National Health and Morbidity Survey 2019.
** Malaysian Healthcare Performance Unit. 2019. *Data refers only to Diabetics in the Diabetes Register.*

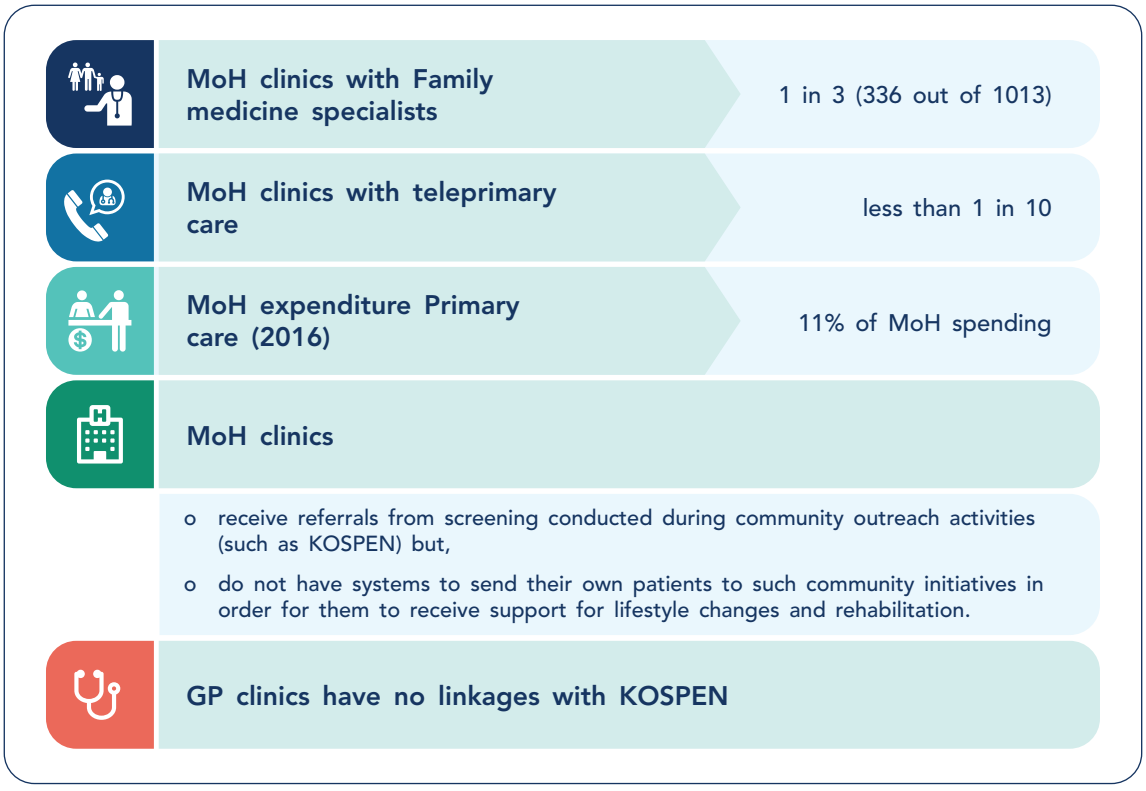
This Policy Brief addresses three major gaps in service delivery:

1. Few communities or locations have the full spectrum of services needed for prevention (promoting and sustaining healthy lifestyles), early recognition (screening and diagnosis) and lifelong management of HBP and DM (control of blood pressure and blood glucose) to prevent or minimise complications.
2. Primary care providers cannot meet the required sustained long-term care needs because of resource and other constraints.
3. Secondary care provides insufficient support to primary care because of the fragmentation of services between the public and private healthcare sectors and inadequate coordination between primary, secondary, and tertiary care levels.

Constraints in the public and private healthcare sectors:

Public sector primary care

Resource constraints prevent the nationwide expansion of promising approaches by the Ministry of Health (MoH) such as 'Enhanced Primary Health Care (EnPHC)[1] in health centres and teleprimary care to support effective long-term care.



[1] EnPHC is an MoH initiative to improve comprehensiveness and continuity of care for Non Communicable Diseases through improvement of work process at clinic level and hospital referral networks.

Private sector General Practitioners (GPs) are readily accessible but are underutilised because the current ecosystem (financing, regulatory, managerial) creates multiple barriers such as:

- Fee-for-service, private insurance, and conditions imposed by employer-funded Managed Care Organisations do not support preventive and long-term management of NCDs or multi-disciplinary approaches at the primary care level.
- The high and increasing cost of medicines for long-term illness leads patients to move from the private to the government-subsidised public healthcare sector for long term management.
- Higher fees on patients who move from the private to the public healthcare sector result in loss of continuity of care. The higher fees create a perverse incentive to conceal the history of prior treatment in the private sector.
- The lack of an integrated information exchange system between the public and private healthcare sectors hampers the ability to track treatment dropouts and to monitor the quality and effectiveness of care.

Secondary care (both public and private sectors)

Lifelong continuity of care is compromised due to insufficient linkages from secondary to primary care and secondary care in the public and private sectors.

Private sector secondary care has additional inefficiencies due to:

- Specialists in private hospitals undertake primary care functions, which results in disincentives for appropriate referrals to GPs who can provide less expensive long-term care.
- High and rising costs in private hospitals due to:
  - High medical costs.
  - The rapid escalation of high-cost technology and potential overuse.
  - Opacity in the price of medication, technology and operational costs.
  - Inadequate analysis and sharing of information on costs and quality of care.

Public sector secondary care has additional inefficiencies due to, in part, smaller district hospitals that have low occupancy rates and inadequate human and physical resources to manage many medical complications.

Evidence from successful experiences

Malaysia has a history of successful long-term management of clients in maternal and child health and communicable disease control. Key factors that contributed to these successes would be applicable in dealing with the current problems:

- The use of large numbers of lower-cost **health workers** (midwives/community nurses, assistant nurses) with **links to local social structures.** They provided early diagnosis and basic management.

- Standardised care was ensured by providing **specific guidelines** for treatment and referral.
- **Free transport provided** in rural areas for referred patients and laboratory samples.
- Specialists in hospitals provided **strong support** for primary care and community efforts.
- Clinical investigations and medication were **free or highly subsidised**.
- **Registers and recording systems** enabled prompt identification and retrieval of treatment dropouts from referrals, or long-term follow up.
- **Quality monitoring** through multiple approaches provided information that enabled the rectification of systemic issues that caused local problems.

Policy directions: Fine-tune and expand current policies to keep people out of expensive hospital care.

Better management of illness in public and private primary care clinics

- **Evaluate** on-going MoH initiatives (such as EnPHC) and University Primary Care Clinics; effectiveness, population coverage, cost. Identify and address gaps in the elements required for lifelong control of HBP and DM including cross-sectoral integration.
- **Invest** in **expanding cost-effective approaches.**
- Harness private sector resources by **addressing issues that constrain GPs** from managing NCDs, including cross-sectoral management and insurance barriers.
- Establish **a cross-sector referral system** for management of risk factors such as exercise, dietary counselling, foot care etc. (Policy Brief #3)

  Evaluate and maximise the potential of **community-based initiatives** (including KOSPEN[2]) to address risk factors, support early disease recognition and management and prevent treatment dropouts, and expand the initiatives to support rehabilitation and care following hospital discharge. (Policy Brief #3)

[2] KOSPEN launched in 2013 by MOH is an initiative for "Nation builders for a healthy community", which aims to empower community involvement through existing government mechanisms at grassroots level to address CVDs. It uses volunteers who are expected to serve as agents of change.

Increase investment in community-based initiatives, including home care.

- Encourage funding and support from other Ministries and public and private sector agencies.

Address gaps in efficiency and effectiveness of public and private sector hospital-based care for HBP and DM.

- Improve feedback from public and private hospitals to primary care and rehabilitation.
- Remove referral barriers between the public and private healthcare sectors.
- Improve transparency in quality and cost to support competition within the private sector.
- Reduce and limit the price of medication for HBP and DM.
- Expand day care and address disincentives for daycare in medical insurance,
- Consider using underutilised smaller hospitals and review MoH criteria for setting up new hospitals with limited facilities.
- Incentivise primary healthcare teams (public and private) to support promotive and preventive care for HBP/DM

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Strategic leadership for healthy lifestyle behaviour change

Key Message

Factors originating in non-health sectors create complex barriers that prevent people from adopting sustained behaviour change towards healthier lifestyles. This policy brief uses two major risk factors of cardiovascular disease (CVD) and diabetes mellitus (DM), obesity and physical inactivity, to illustrate some of these barriers. The Policy Brief proposes policy refinements for multisector, multi-actor initiatives to address the barriers.

The Problem

The Ministry of Health (MoH) has launched national strategic plans for non-communicable diseases (NSP-NCD) that require an 'all of society' approach. The Plans include macro-strategies to address obesity, dietary practice, physical activity, and specific monitoring indicators and achievement targets. Thus far, there has been a limited impact at the population level. Addressing obesity, low physical activity and unhealthy dietary practices requires behaviour change in the population.

Multisectoral factors. Complex factors govern behaviour change. Many crucial factors that contribute to behavioural patterns are largely outside the purview of the health sector. For example,

- Physical inactivity: Urbanisation (70% population is urban) creates barriers to physical activity. City planning pays scant attention to recreational spaces, resulting in inadequate space for physical activity. Additionally, lengthy commutes to work/school/shopping and traffic congestion erode leisure time. Further, work is increasingly sedentary.
- Obesity: Women are increasingly active in the paid workforce but continue to be responsible for most household chores. This economic transition and change in household dynamics means that families are increasingly dependent on hawkers and fast food outlets, which is not conducive to healthy eating.

Non-health related Ministries and Local Authorities have oversight of the urban environment, transport, work and living conditions, and food outlets. The health sector has limited influence over policies made in those agencies, although the policies' consequences have a significant impact on health.

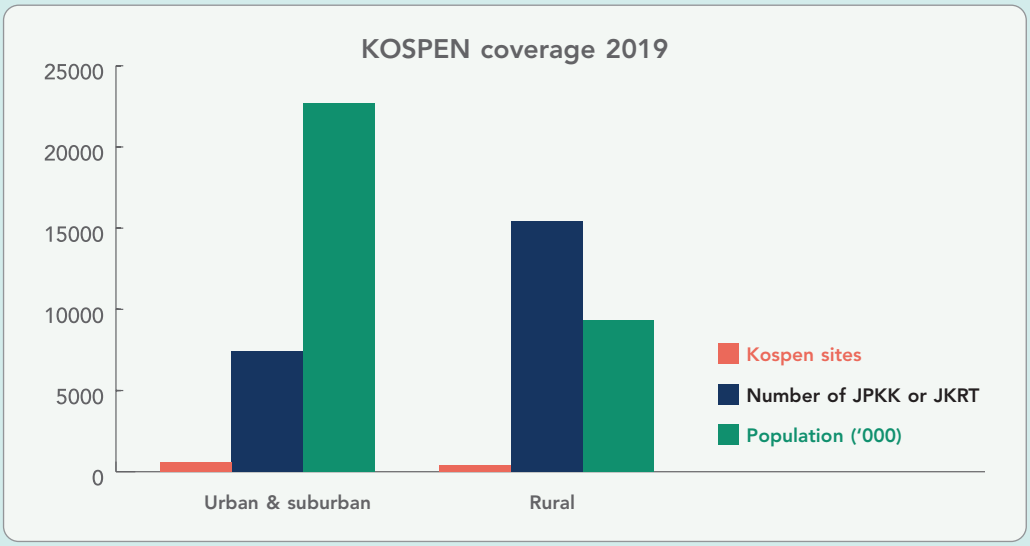
Therefore, addressing the physical and social barriers to behaviour change requires policies, actions and monitoring by several Ministries

and Local Authorities. Enabling behaviour change towards healthier lifestyles requires **effective and sustained multisector, multi-actor interventions that address social, economic and environmental barriers to change.**

The limited scope of current initiatives. Promising initiatives such as KOSPEN[1] are limited in the coverage and scope of activities and are not sufficiently targeted, for example, to people with DM and CVD.

Promising initiatives need outcome evaluation and /or expansion

1. **Community level initiatives.**
   - o For example, KOSPEN which is implemented in partnership with JPKK & JKRT[2], seems promising, but its scope of activity and impact of sustained behaviour change in the community needs evaluation. For example,
   - o Scope of activities: improved targeting towards higher risk individuals, expand referrals from KOSPEN to include private clinics, establish referrals to KOSPEN from clinics and hospitals.
   - o Coverage is limited (see graph), its impact on sustained change at community level is not known and requirements for sustainability are unclear.



2. **Large scale initiatives,** such as media campaigns, legislation/taxation in relations to sugar content and school canteens
   - o How do they fit into a planned strategy for sustained behaviour change?
   - o How effective are they?

[1] KOSPEN launched in 2013 by MOH is an initiative for "Nation builders for a healthy community", which aims to empower community involvement through existing government mechanisms at grassroots level to address CVDs. It uses volunteers who are expected to serve as agents of change.

[2] JPKK = Village Development and Security Committee for rural residential areas; JKRT= Neighbourhood Watch Programme for urban residential areas under the Department of National Unity and Integration.

Financing is opaque. Currently, 11% of Total Health Expenditure is for primary care. Questions to be answered include:

- What is the appropriate funding for health promotion?
- What funding is required to upscale and sustain initiatives?
- What proportion of health promotion funds should be allocated to mass media initiatives vs targeted community-specific approaches?

Malaysian experiences of successful change in health behaviour

Behaviour Change. The Malaysian health sector has examples of successful change in health-related behaviour that provide pointers.

Two examples of successful behaviour change

Improved rural sanitary habits *(Chapter 7) in villages with poor sanitation*

Target population. *Data on the sanitation status of all rural districts & mukims enabled health staff to target interventions to villages with high needs and monitor implementation progress.*

Social groups, entry points & use of relevant expertise: *Relevant training enabled health staff to use JPKKs to mobilise community support, while public health engineering expertise enabled upscaling of successful small-scale initiatives by outsourcing production to the private sector.*

Evidence *that rural communities did not believe the government would actually provide support enabled health staff to win the trust of JKKK by promptly providing construction materials, which in turn energised villagers to provide manpower for construction.*

Behaviour change to reduce mortality and morbidity during childbirth *(Chapter 4)*

Safe childbirth

- ***Evidence & social groups:*** *Evidence showed that rural pregnant women used traditional birth attendants (TBAs) during childbirth for the emotional and physical support. MoH recruited TBAs to work beside trained government midwives who provided safe care while TBSs retained a role in the community and provide emotional support to mothers.*

Applying lessons from the past to the current scenario

Data on target populations.

Previously, the population was largely rural and disaggregated data at the district level enabled targeted action. In contrast, the population is now largely urbanised, and disaggregated data by geographic or administrative division is not collected. Further, data on people with NCDs (DM, Prediabetes, CVD) is not disaggregated beyond the state level.

The recent experience of the COVID-19 pandemic illustrates the need for disaggregated data on urban population groups to enable targeted strategies.

Social groups and structure as entry points for interventions.

Past experiences show that health personnel used easily recognisable rural social structures to introduce initiatives for behaviour change. In contrast, social groups in urban settings are varied, for example, by residential type; low-cost flats, squatter areas, housing estates. Social structures are more complex and overlapping, for example, religious, workplace, political, and recreational settings. Established urban institutional mechanisms such as the JKRT's *rukun tetangga* have limited reach (see Box 3.1). The public health sector does not have sufficient expertise to identify and harness alternate entry points in urban settings. Further, the effectiveness of potential entry points is untested. These entry points include follow-up referrals from health centres and GPs, electronic platforms (social media, specific apps), religious or social or activity groups.

Evidence on barriers to behaviour change.

Experience demonstrates that social research has provided evidence for interventions. However, there is limited evidence on the barriers that constrain people from adopting the behaviour change that the NSP-NCD promotes. For the evidence to be valuable, it would need to encompass complex lifestyle factors and be disaggregated by gender, social, economic, work, recreational and other criteria.

Experience in strategic leadership for multi-sectoral policies and actions

The strategic leadership that MoH provided for the development of urban environmental sanitation programmes provides valuable pointers. Urban sanitation is under the purview of state and local governments who had limited expertise in this field. First, MoH acquired engineering expertise through engineers seconded from the Public Works Department (PWD) and provided the engineers with training in public health. Subsequently, public health engineers from this core group were seconded to the Ministry of Housing and Local Government to provide technical expertise in developing appropriate policies and interventions. Their success is evident in establishing a national sewerage company and eliminating the bucket latrine system.

Refining Policy Directions to address barriers to targeted behaviour change

1. Enhance the **evidence base** on barriers to behaviour change:
   a. Conduct an in-depth analysis of **KOSPEN,** a potentially rich source of data, to understand better what does and does not work in urban communities, such as improving detection rates and reducing treatment dropout rates.
   b. Build information on the underlying barriers to sustained behaviour change, including environmental, social and economic factors.
2. Explore and establish **additional urban community-based** entry points in both public and private sectors for risk rating, screening, referral, and follow-up.

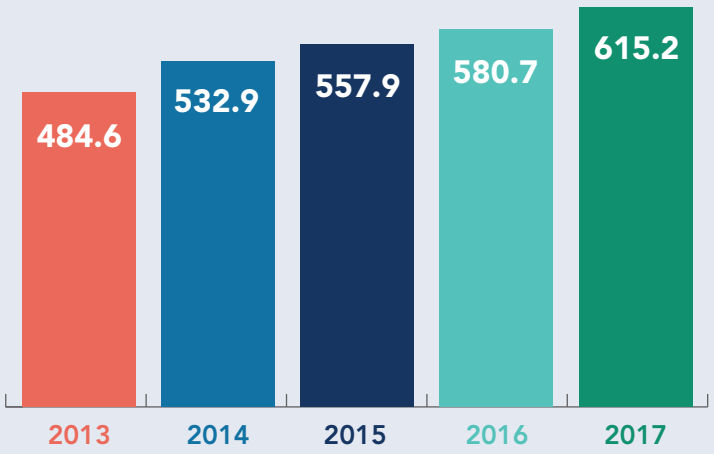
Potential criteria for mobilising potential community-based entry points for screening, risk rating, referral

- Easy access (location, timing), predictable and sustained availability.
  o Examples: pharmacies, opticians, health food outlets, supermarkets/mini marts
- Low-cost part-time personnel with competency based training
- Establish links to health clinics and GPs
- Integrated information system including web-based applications (registration, risk status, referral and defaulter status).

3. Before the introduction of larger-scale initiatives, **use multiple small-scale experiments** with
   a. different strategies to address the issues, and
   b. high-quality evaluation on effectiveness and cost.
4. Increase **funding** for behaviour change initiatives that have proven effectiveness.
   a. Explore innovative approaches to funding.

Islamic social financing: is this a potential source?

Chart 1: Collection of Zakat in Federal Territory, Malaysia (MYR Million)



Source: Annual Report 2017 Federal Territory Islamic Religious Council

A paper entitled *'Can Islamic social finance be the key to end poverty and hunger?'* summarises discussions at the 4th Annual Symposium on Islamic Finance Dec 2019 in Kuala Lumpur which discussed how other countries have used social smart cards and blockchain technology to distribute Islamic social funds for targeted purposes.

Source: Ahman Hafiz Abdul Aziz & Wei Zhang. April 2019. https://blogs.worldbank.org/eastasiapacific/can-islamic-social-finance-be-key-end-poverty-and-hunger

5. **Strategic leadership by MoH through:**
   a. utilising the platforms established under NSP-NCD to **stimulate multi-actor interventions** that focus on identified locations or target groups,
   b. recruiting and training **social or behavioural scientists in public health** and, where relevant, embedding the personnel in other Ministries/agencies to stimulate and sustain coordinated action in multiple sectors,
   c. ensuring that interventions include **monitoring** of agreed indicators to demonstrate success or failure, and
   d. forming strategic partnerships with private enterprises, optimising online technology platforms.

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