PLANNING THEORIES IN HEALTH SERVICES PLANNING FOR DEVELOPING COUNTRIES: A CASE STUDIES

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ABSTRACT

Background: Health planning is defined by WHO in 2017 as “the ordinary process of defining the community health problems, identifying unmet needs and surveying the resources to meet them, establishing priority goals that are realistic feasible and projecting administrative action to accomplish the purpose of the proposed program”. Studying planning theories such as rationalism, incrementalism and mixed-scanning using analysis tools like SWOT and GAP analysis allows the identification of the key components of complex health problems and providing a better focus for potential interventions. From this article, the health planning in developing countries is able to be studied.

Materials and Methods: The information used in this article is based on literature review. The primary search were conducted via public domain database such as Google and Yahoo, apart from searching through journal website including PubMed, MEDLINE, Science Direct, Wiley and Scopus using the keywords. Then two case studies were selected for each theory in order to analyse in depth the application of planning theories in health services planning. Subsequently, each case study is analysed thoroughly using SWOT analysis and GAP analysis.

Result: SWOT and GAP analysis are used to analyse health programme in featured countries. The case studies also enable us to differentiate the application of planning theories in health planning among developing countries.

Conclusion: SWOT and GAP analysis enable us to identify the effects of internal and external environmental factors on a programme. The strengths and opportunities should be the foundation in designing a programme, whereas weaknesses and threats will be the boundaries that need to be overcome to create successful health programmes. The gap identified from current planning is also really helpful in designing a better programme in the future. Each theory has its own strengths and weaknesses. Each of them is different from the others in term of applications that are mainly based on resources availability, time limit, planning capacity, commitments from stakeholders, nature of the problem and local circumstances.

Keywords: planning theories, health services planning, developing country
1.0 Introduction

Differences in health status between developed and developing countries have been well noticed and documented based on health indices such as infant mortality, child and maternal mortality (WHO, 1983). Substantial differences in child survival by income and ethnic groups have been also identified across a wide variety of Asian, Africans and South American countries (Wagstaff 2000; Brockerhoff, and Hewett 2000). Understanding the differences of economic dimension across developing countries with health inequalities help better shaping of health policies and programs development (Gwatkin et al., 2007). To eliminate disparities in health status and outcomes, a comprehensive process that involves effective health policies, strategies and planning should be taken into account.

According to World Health Organisation (WHO) in 2017, health planning is defined as “the ordinary process of defining the community health problems, identifying unmet needs and surveying the resources to meet them, establishing priority goals that are realistic, feasible, and projecting administrative action to accomplish the purpose of the proposed program”. Consequently, health service planning aims to improve the health status of a given population while safeguarding equity and fairness of access as well as responsiveness of the health system to the perceived needs of the community (WHO Regional Office for Africa, 2004).

Theory allows the identification of the key components of complex health problems and providing a better focus for potential interventions. Current literatures often describe three most commonly used theories of planning; rationalism and incrementalism (Lindblom C.E., 1955) at the two end of planning continuum, and mix scanning theory (Etzioni A., 1967) in between of the two end of the continuum.

Rationalism is a process of understanding the problem followed by establishing and evaluating planning criteria, formulation of alternatives and implementing them and thereupon monitoring the progress of chosen alternatives (Elliot, 2014). Often clear goals and objectives are set at the beginning by the decision makers. Policies set through this theory generally require full knowledge which oftentimes requires specialized research technique such as causality or risk assessment in order to provide evidence-based knowledge for the policy cycle (Bekker, Putters, & Van Der Grinten, 2004). However, Lindblom (1959) and Etzioni (1967), both argued regarding the practicality of rationalism in decision-making. Both pointed out that most of the time, goals cannot be predetermined due to amleness of values.
that are not agreed upon by decision makers and stakeholders, plenty of variables, the end result that cannot be controlled and most of the time, there are limited resources to analyse those values and variables (Bekker et al., 2004).

Incrementalism which was developed by Charles E, Lindblom in 1959, proposes that major policy change is best made in little increments over long period of time and it is applied in an already established system using a few incremental changes. Lindblom proposed a less sequential policy stages which can be implemented in unstable environment. Incrementalism has limited choices of goals and needed less comprehensive knowledge regarding the problem (Bekker et al., 2004). Often not, these theories are applicable to organization with powerful stakeholders and multiple actors with strong decisional power to be able to negotiate over policy goal. Having said so, incrementalism targets policy makers to avoid making changes before they had a thorough knowledge about the issue (Anderson, Sara, and Harbridge, 2010). Nevertheless, Etzioni in 1967 stated that although incremental decisions may prepare or elaborate fundamental decisions, it cannot be evaluated without evaluation criteria set beyond those of incrementalism.

Mixed scanning theory, the third theory developed by Amitai Etzioni 1967; is an approach that is ‘higher-order with fundamental policy-making processes are combined with incremental ones’ to overcome each other’s shortcomings. It is a very common model applied by decision makers and planners in healthcare sectors. Sequence of policy cycle often times depend on strategy with limited knowledge and choices in this theory. Additionally, it is useful when policy process is properly understood and methods fit policy problem and dynamics (Bekker et al., 2004). Usually it benefits from the use of short-term incremental decisions while assuming the ability of organizations to evaluate these decisions and strategies in way similar to rational approach (Etzioni, 1967).

The aim of this manuscript is to identify planning theories applied in health services planning among developing countries. Besides that, it also aims to study the gap in health services planning as well as the strength, weakness, opportunity and threat of each example. The analysis from this article is expected to act as the guidance for healthcare managers in future health services or programme planning.

2.0 Methods

A literature review was carried out to search for planning theories in health services among developing countries. In order to capture the contextual factors associated, the primary search was conducted via public domain database such as Google and Yahoo. Apart from that, the search engine used also included journal website including PubMed, MEDLINE, Science Direct, Wiley and Scopus. Each database was then revised. Following that, exact phrases such as “health planning” “planning theories” and “developing countries” were searched. Through the search engines, a total of 32 articles or report were found. Screenings of studies were done by reviewing the titles and abstracts of the articles. Subsequently, 10 studies that were not focused on health planning theories were excluded. For case study purposes, 2 cases were selected for each theory in order to analyse in depth the application of planning theories in health services planning. This was carried out via forward and backward citation searched as well as examination of highly-cited articles. Keywords such as “health policy development”
and “health policy in developing countries” were used in later search. SWOT analysis and GAP analysis were performed on each case.

3.0 Results and Discussion

3.1 Rational theory

**Case Study 1 – Qatar; National Cancer Strategy**

In 2011, the Qatari Supreme Council of Health published the National Cancer Strategy: The Path of Excellence. The strategy which was developed and owned by the supreme council was meant for 5 years (2011 until 2016). It was focused on putting Qatar’s cancer service to the forefront of international best practices. This aims to ensure that Qataris can get cancer treatment locally in Qatar instead of going abroad, and also had one eye on medical tourism in the region regarding cancer treatment. This massive endeavour is somewhat intriguing given that cancer accounts to only 10% of deaths in Qatar, comparable to 27% in the United Kingdom (Supreme Council of Health Qatar, 2011). But the plan highlighted the Qatari government’s concern that the burden of cancer will be increasing in 10 years’ time due to the increasing elderly population which will yield higher risk for cancer (Supreme Council of Health Qatar, 2011).

This strategy is broad spectrum in term of timeframe and level of prevention, providing strategic clarity on awareness, prevention, detection, diagnosis, treatment and care. First, the plan emphasises on increasing education and understanding of cancer through myth-busting campaigns, education in school, increasing awareness and established a Qatar-specific information website. It also has a renewed focus on prevention, which consists of reduce smoking, increase physical activities and good diet. Early detection is vital so a comprehensive cancer screening program will be formulated by a new permanent body, Qatar National Screening Committee, which will provide a clear screening guideline, education on symptoms of cancer, making use of the latest technologies available and delivered in convenient locations by a range of providers. Cancers will need rapid and definitive diagnosis, so the strategy highlight training for primary care clinicians and their role in cancer treatment, fast referral times to specialist clinics and improved diagnostics capacity and modality. Treatment for cancer will be patient-centred to ensure not only the medical needs but also psycho-social needs are fulfilled. The treatments are required to be multi-disciplinary, specialised, evidence-based and timely in nature. This would in turn create new roles such as Multi-Disciplinary Team Coordinator, Clinical Specialists and also new clinical practices that focus on specific cancer sites. The strategy also acknowledges the importance of ongoing care which consists of palliative care effective pain relief and support for both terminal and non-terminal patients. It also seeks to improve the roles on cancer support groups and also cancer survivors to help volunteering efforts to other new patients. Measuring performance is vital to know whether the cancer care in Qatar has improved, so the cancer and screening registry will be strengthened and complimented by two new survey, populations understanding of cancer and patient’s experiences of cancer treatments. The strategy also seeks to increase the healthcare workforce and finally to support research activities (Supreme Council of Health Qatar, 2011).
Case study on Qatar health service’s planning indicated the used of rational theory. This is a strategy that was developed based on evidence available. It is pre-emptive in nature and had its vision for years on the future. It was formulated in a stable environment economically and politically. It has multiple dimensions of approaches and very comprehensive in nature. It also fulfils the assumptions of rational planning, which says that people behave rationally, almost unlimited problem-solving capacities, affordability, identification of all alternatives, and no unforeseen variables (Bekker et al., 2004).

SWOT analysis in Qatar case study indicated the strength of the strategy that was backed by a supportive leadership and a good supreme council of health that stewards the health system. It has one of the most advanced infrastructures in terms of technology and facilities. It has highly qualified professionals and high accessibility and responds to public needs of health. The plan was comprehensive and covers all level of preventions and supported by a long term strategic human resources plan. The weakness for this strategy is Qatar are still lagging behind in term of clinical and health research capabilities, limitation in medical privileges, limitation in health information systems limitations in specialised medical facilities and implementing training plans. The opportunities identified are potential for collaboration with regional WHO office (EMRO), collaborations with other gulf states, partnership with educational institutes, increased competitions among healthcare providers, funding by the supreme council, developing new system for performance evaluation and improved health information system via higher investments. The threats to this strategy are lack of public support due to the low mortality rate from cancer compared to other non-communicable diseases and associated risk factors, limitation in technical support, limitation in funding resources, global shortages of health professionals, high cost of medical equipment and drugs due to fast technological advancement and divergence of demand and supply for health services.

GAP analysis noted that under the educations strategy, there is a need for a Qatar-specific website that provided information about cancer treatment for Qatar. Currently, there is a website called Qatar National Cancer Society; but the information in the website is still not comprehensive and needed major modifications. To do this, Qatari Supreme Council of Health needs to invest more on information technologies and upgrade the existing server to increase the capacity for higher accessibility and bandwidth. Other than that, investment in appropriate personnel and media campaign is also important. If these needs are fulfilled, it is not impossible for the government to establish a readily accessible Qatari-specific website that would give information to patients with cancer about the treatments available in the country.

The Case Study 2 on health services planning on lower sugar intake among developing countries in Eastern Mediterranean Region of WHO (EMRO). It can be concluded the policy of health services planning regarding lower sugar intake among these countries were formulated based on the rational theory. This is because the policy is a novel policy and did not have any previous similar policy before. The policy was formulated based on years of evidences from public health researches done globally and locally in the region itself. It is formulated in a stable environment and long term in nature. It was developed with comprehensive approach of problem solving and flexible in term of resources and time frame due to the diverse economic level of the member states in EMRO. It also has multiple dimensions and variables in term of approach and emphasis.
Case Study 2 - Eastern Mediterranean Region Developing Countries; Lower sugar intake

In 2016, EMRO formulated a policy aimed to lower sugar intake and subsequently reduce prevalence of type 2 diabetes mellitus and obesity, to reduce non-communicable diseases in children and adult and to focus on prevention of unhealthy weight gain, diabetes and dental caries (World Health Organization Regional Office for Eastern Mediterranean, 2018). This policy was adopted to achieve WHO target in halting rise of diabetes and reduce the relative risk of premature mortality due to non-communicable diseases by 25% in 2025 (WHO, 2013). This also correlates with WHO strong recommendation for both adult and children to reduce intake of free sugar to less than 10% of total energy intake with further reduction to 5% (WHO, 2015).

To achieve this policy, EMRO suggested few measures to minimise sugar intake that could be adopted by member states such as reformulate sugar-rich food and drinks to lower sugar intake, set standards for all food and drink served by government-sponsored institutions, restrict promotion of sugar-enriched products especially drinks, impose restrictions on marketing, advertising and sponsorship of all sugar-enriched foods and drinks across all media platforms, use nutritional profiling to establish clear definitions of foods and drinks high in sugar, eliminate sugar subsidies provided by national governments and introduce progressive taxes initially on sugary drinks and then on all foods and drinks with added sugar, improve accredited training on diet and health for individuals with opportunities to influence population food choices and provide routine health education to population (World Health Organization Regional Office for Eastern Mediterranean, 2018). These measures are divided into four phases in which member states can adopt at their own national context and flexible enough to allow all stages of prevention from primary to tertiary done according to national capacity and resources.

SWOT analysis indicated that the policy’s strengths are backed by recent available evidences, it is formulated by the regional international body with flexible time frame suitable for each member states, it has a clear, specific, and attainable target and also specific details on how to get there. It also involves the main “players” of the food industry such as soft drinks, food manufacturing and advertisement. Respective member states have a good governance and resources to implement this policy. However, one can argue that the target is probably too idealistic and may not be feasibly achieved. It also requires a lot of commitment from the stakeholders which could disagree to adhere to the policy. The opportunity for this policy is that it may attract support from international organisation such as The World Bank to provide funding and WHO for technical assistance. It may also attract interest groups and private donors and philanthropist to provide financial assistance. However, the threats to this policy would come from pressure groups and lobbyist. It also may not gain any support from public if they are not willing to change their dietary habit and lifestyle in accordance of the policy. Any disruptions in taxes and subsidies could impact trade and national income.

The GAP analysis indicated that the objective of the policy is one of the deficiencies in the current policy to be improved on. The policy stated that adult and children must reduce their daily free sugar to less than 10% of total energy intake. Based on the calculation, this means that each individual in the developing countries in EMRO can only took 25 gram of sugar each day. At the moment, current dietary habit shows that daily free sugar intake in the region is around 70 gram. This means, a successful implementation of the policy will require
individual to cut more than half of their normal daily sugar intake. To do this, countries must invest a lot in education and campaign to raise awareness about the danger of sugar. Countries must also work closely with stakeholders such as soft drinks company, food industry, and restaurants to coordinate on effort to reduce sugar contents in their food. This must be supplanted with effort to aid these company to reformulate their product by trained nutritionists. The accredited training must also be done to influence the public to change their diet and make healthy lifestyle more fashionable and attractive trend. After some time, tax on high sugar content food product can be imposed to further reinforce government’s commitment in reducing overall sugar intake in their country.

3.2 Incremental theory

**Case Study 3 – India: Population policy planning**

Health, Nutrition and Population (HNP) has been introduced in India in 1970s. Since then, it has evolved in three phases in India (World Bank, 1999). The first phase happened from 1972 through 1988, in which the World Bank had limited influence in the national policy. During these years, the population policy was focused on sterilization and expansion of facilities with little emphasis on improving the demand and quality of family planning in population. Thus, it has little impact on contraceptive prevalence and total fertility rate, as the community culture and belief prohibit them from practising sterilization.

Learning from experience, starting from 1987, the World Bank took an initiative to involve the government in conducting series of studies to determine the community diagnosis among different regions and sociocultural practices in India. The outcome of the studies had played great role in changing the population policy including deviation to the outreach programme, introduction of temporary contraceptive methods such as Oral Contraceptive Pills (OCP), Intrauterine Contraception Device (IUCD) or condom. The programme also began to focus on certain population with greater need of family planning such as urban slums. However, despite many improvements have been observed, there were few weaknesses identified such as failure to prioritize area or state in need and failure to involve local stakeholders in policy planning.

Thus, in 1996, a new phase has begun, in which it focused on meeting individual woman’s reproductive health needs without emphasizing sterilization targets and acknowledge differences of contraception needs in different situations. As the results, the contraceptive prevalence rates were recovering. Besides that, local stakeholders and non-governmental organizations (NGOs) were included in programme planning. To increase accountability towards the programme, performance-based budgeting was also introduced.

The Case Study 3 is on population policy planning in India in which the theory used behind it is the incremental theory. It can be justified by improvement of weaknesses encountered as the development phase evolved. The improvement is an ongoing process as there will be weaknesses and limitations identified from time to time. This theory also emphasizes on the importance of continuous monitoring and evaluation of a programme in improving its effectiveness.
The SWOT analysis on the policy resulting that the India government commitment together with the involvement of the community in programme planning and monitoring are the strength of this policy. As for the weakness, as the improvements were made based on the experience learned, there were limited roles of decision making skills and innovative ideas in the health planning. The current decision may not be practical or useful in the future when the situation and community values changed. Thus, it needs frequent monitoring and improvement to ensure its effectiveness and efficiency. The opportunities are the great cooperation, support and involvement of World Bank in providing technical assistance and funding on the programme, together with active participation of local stakeholders in the national and local levels in designing their own plan that suits the local community needs and demands. The threat for this programme is the structure of health system in India that is highly centralized, thus making it difficult for local managers to modify the policy implementation based on the local situation, issues and needs. Besides that, the awareness and self-efficacy among community members may influence the adherence to the programme. Lack of awareness will lead to non-compliance to the treatment given. The high cost of contraception also is a big threat of this programme, as the community may ignore this programme if they are unable to bear the cost.

Taking into account the weakness of current programme for the betterment of future planning from GAP analysis, the involvement from community members are very crucial in this type of programme which needs 100% co-operation from people to be successful. For that reason, participation of the local leaders should be made mandatory in the future programme planning to give insight on the community values. Besides that, current programme do not emphasize on specific outcome indicators, such as specific reduction of total fertility rate, percentage of women with unmet needs or percentage of class A contraception utilized by high-risk women, as tools to monitor and evaluate the efficiency and effectiveness of the programme. It can be applied in the future programme planning.

The Case Study 4 is on Hong Kong

**Case Study 4 - Hong Kong: Severe Acute Respiratory Syndrome (SARS) Epidemic Management**

Many lessons were learnt from Hong Kong’s experience in managing epidemic of Severe Acute Respiratory Syndrome (SARS) in 2003 (WHO, 2003). During this catastrophic event, many gaps were found which caused rapid spread of the infection to other part of the world. The weaknesses identified is the lack of reporting from neighbouring country, China on the earlier cases in Guangdong, inadequate information and awareness on the epidemiology and characteristics of the circulating virus, lack of safety measures in international border in controlling international transmission (WHO, 2003) and lack of isolation facilities and outbreak preparation in hospitals design plan (David S. Hui, 2013). Furthermore, the outbreak has posed great impacts on health services in Hong Kong whereby it affected approximately 400 healthcare workers and 8 of them had died during the outbreak course. It was believed that super-spreading event was related to the high risk procedures they done (intubation, PPPV) combined with lack of infection control measures practised by them (Avendano, Derkach, & Swan, 2003).
As a response for gaps in outbreak preparedness in Hong Kong, a centre for disease control was constructed following the end of the pandemic (Hung & Ffcm, 2003). The centre is responsible for monitoring of novel infections, conducting research on existing agents, coordinating timely outbreak response and disseminating information and risk communication to relevant stakeholders. Furthermore, after the SARS experience, Hong Kong government had injected substantial funding to improve and upgrade health care facilities in the public hospitals as preparation for emerging disease. Currently, there are more than 1,400 isolation beds equipped with negative pressure ventilation in public hospitals (Hung & Ffcm, 2003). Bigger isolation rooms with higher air changes per hour (ACH) are available in tertiary centres. In addition, WHO and Hong Kong government had provided adequate supply of personal protective equipment (PPE) (WHO, 2003) and made mandatory for hospital beds to be separated at least 1 metre apart for every general wards (Hung & Ffcm, 2003). These measures has facilitated the effectiveness in controlling the transmission especially in the healthcare facilities. Following rapid response by WHO and Hong Kong government, the pandemic was able to be controlled by July, 2003.

It can be concluded that the SARS outbreak management in Hong Kong was using the concept of incrementalism. It is justified by the characteristic of the event itself that was rapid and explosive in nature, which hampered possibilities of proper evidence-based decision-making process that usually requires longer time. Besides that, all the control and preventive measures mentioned, whether carried out by WHO or Hong Kong government, were based on the national and international earlier experiences in handling SARS.

From the SWOT analysis, it can be concluded that high awareness among staffs following risk communication by WHO and good infection control practices among them, had made the situation more manageable towards the end of the pandemic. Besides that, the ways of dealing with SARS pandemic is actually a cost-effective, conventional ways in which it only needed a proper infectious control practices, case tracing, and isolation of cases and quarantine of contacts, compared to high-tech experiments that absolutely will consume more resources. The weakness of this programme is that it only depended on the national and international experience on tackling this deadly infection, but not based on the proper process of decision making, which is more rational and ideal. As a result, over response can be seen in the management of the outbreak, in which without referring to IHR, WHO had issued the ban to travel to high risk countries including Hong Kong, thus greatly impacted its economy and tourism industry. The opportunities that can be identified from this experience is the great support and commitment from WHO and Hong Kong government to tackle this event. Besides that, the co-operation from countries all over the world facilitated by help from mass media in case reporting and sharing knowledge on the epidemiology of the virus also had benefitted the outbreak management. On the other hand, the nature of the infection as a zoonotic disease caused by ingestion of exotic wild animals and facilitated by human travelling, had made the disease is at risk of re-emergence or mutation to the more pathogenic strain in the future. Thus, outbreak preparedness has to be carried out by every country to prevent huge impact from future new pathogens.

Concerning the GAP analysis, the obvious weaknesses that can be identified in managing the SARS pandemic are the lack of communication and coordination between WHO and the affected member countries, lack of reporting of the earlier cases in China and unpreparedness of the Hong Kong specifically and world in general in facing a new emerging disease. This
significant event could be controlled more efficiently in the future if there is a great coordination between WHO and the affected countries in managing the outbreak or pandemic. Mutual understanding on the current emergency situation without jeopardizing the great impact on economic and political situation it may pose on the affected countries, are very crucial. Besides that, the surveillance on any abnormal situation or syndromic diseases should be improved by all countries in the world. It needs regular audits and monitoring to ensure the reliability, sensitivity and specificity of such surveillance. Last but not least, all countries should be well informed and regulated on the minimum requirement of facilities to deal with any emergency, disaster and catastrophic events in the future. In order to achieve that, adequate financial resources should be provided by responsible agencies (such as World Bank) especially to the developing countries to prepare for the worst.

3.3 Mixed-scanning theory

**Case study 5: Malaysia**

In 2010, the Malaysian government has strengthened the NCD prevention and control programme by developing and implementing the National Strategic Plan for Non-Communicable Disease (NSP-NCD) 2010-2014 and followed by the latest strategic plan, the NSP-NCD 2016-2025. They are based on National Health Morbidity Survey (NHMS) and Burden of Disease Studies.

The NSP-NCD program received a strong support from the Malaysian government, whereby there was a formation of Cabinet Committee for A Health Promoting Environment. The Cabinet committee comprised of eleven Minister and chaired by the Deputy Prime Minister. This is in line with the WHO’s recommendations in which Malaysia has adopted the whole-of-government approach for an effective NCD prevention with strong and proactive involvement of other ministries and the relevant stakeholder (Ministry of Health, Malaysia, 2016).

The latest edition of NSP-NCD 2016-2025 is a continuation programme whereby it will continue to provide a framework for strengthening Malaysia NCD prevention and control. The NSP-NCD 2016-2025 was constructed based on the current prevention themes and drawing references from the lesson learnt from earlier NSP-NCD 2010-2014. In 2014 and 2015, an evaluation of the NSP-NCD 2010-2014 was performed by an external consultant through an Approved Programme of Work (APW) under WHO Programme Budget 2014-2015. The first part of the evaluation in 2014 was conducted to develop the tools for monitoring and evaluation and also to identify the required data sources. Meanwhile, the second evaluation conducted in 2015 was to incorporate relevant data into tools (Ministry of Health, Malaysia, 2016).

The main goal of the strategic plan is to provide pathway for all related stakeholders in Malaysia to reduce the preventable and avoidable burden of morbidity, mortality and disability due to NCDs. This goal can be achieved through multi sectorial collaboration and cooperation at national and state levels. The NSP-NCD focused on three main types of NCDs (diabetes, cardiovascular diseases and cancer) and four shared risk factors (tobacco use, physical inactivity, unhealthy diet and harmful use of alcohol). From the NSP-NCD 2016-2025, seven action plans and initiatives were implemented and it consists of National
Strategic Plan for Tobacco Control 2015-2020, Policy Option to Combat Obesity in Malaysia 2016-2025, Salt Reduction Strategy to Prevent and Control NCD for Malaysia 2015-2020, National Strategic Plan for Cancer Control Programme 2016-2020, and Strengthening Chronic Disease Management at Primary Care Level through the Enhanced Primary Health Care (EnPHC) Initiatives. Malaysia also has selected seven indicators and targets as the major NCD targets for the NSP-NCD 2016-2025 which is based on the comprehensive global monitoring framework and the targets have been set in line with the voluntary global targets (Ministry of Health, Malaysia, 2016).

The National Strategic Plan for Non-Communicable Disease in Malaysia is using the mixed scanning approach. This is because the NSP-NCD was developed based on the current global themes and mandate from the WHO in which it is based on wide range of evidence. In 2014 and 2015, an evaluation of NSP-NCD 2010-2014 was conducted and several tools and indicator were developed in response to the limitation of the NSP-NCD 2010-2014.

Based on SWOT analysis, it can be concluded that the NSP-NCD consolidates all programmes on the prevention and control of NCDs in one document and it also provides the overall strategies to prevent NCDs in Malaysia. Meanwhile, the weaknesses of this programme are lack of involvement and engagement of the community, the sustainability of the Komuniti Sihat Perkasa Negara (KOSPEN) program and also inadequate funding, training and quantity of the screening equipment. There are several opportunities that were identified in this programme. This programme obtained a strong support from the WHO and the Malaysian Government, as the fundamental for development of public-private partnerships. Other than that, this programme received technical support and funding from the international bodies. Despite the opportunities that were given, this program is a top down direction of instruction making it difficult for community empowerment and mobilisation. Meanwhile, political change could also affect the direction of the overall agenda.

NSP-NCD 2016-2025 has implemented several strategies and programmes in order to prevent and control non-communicable diseases in Malaysia but a few gaps were identified. Based on GAP analysis, there is lacking of evaluation of the existing programme and monitoring of the trends are required in order to evaluate the effectiveness of the programme. Through a programme under NSP-NCD 2016-2025 known as KOSPEN, several of undiagnosed non-communicable diseases cases were detected but further means are required to explore the reasons for high rates of undiagnosed non-communicable diseases in Malaysia especially among young adults. Therefore, from knowing the reason behind it, appropriate intervention can be implemented in the community to tackle these issues.
It can be concluded that the Health Improvement Strategy 2015-2018 was using the mixed scanning approach. It is based on the evidence available from previous research and programme. The Ministry of Health also analyse the internal and external environmental data to formulate and to select accurate indicator for this strategic plan. From this plan, several improvement was implemented to overcome the shortcoming and the limitation of the previous programme. This Health Improvement Strategy 2015-2018 is currently focusing on the continuous monitoring and frequent evaluation of the programme.

From SWOT analysis, this strategic plan has a great support from the leadership, it has a structured legal framework with the presence of long term strategic human resources plan, highly accessible and respond to the population needs for health. It is also has a comprehensive and well established primary healthcare services. Despite the strength of this plan, there are also several limitation which includes limitation in integration, communication and coordination between Primary and Secondary Health Care, health information system is inadequate to analysed and to be used for informed decision making, and limitation in implementing training plans. The opportunities that were identified in this plan are there is a

Case study 6: Bahrain

The Ministry of Health, Bahrain has developed and implemented Health Improvement Strategy 2015-2018 with the mission to provide accessible and sustainable high quality of health service to the whole population of Bahrain. The Ministry aims to tackle the major challenges faced by the health sector by focusing on the preventive services and health promotion programme, encouraging the community partnership and self-care principles. These initiatives were implemented based on evidence and it is in line with the best international standards. The Health Improvement Strategy 2015-2018 was prepared and formulated based on the analysis of the internal and external environmental data. The analysis also help in the determination of strategic objectives and programme which will be implemented during the next four years plan (Ministry of Health, Kingdom of Bahrain, 2015).

The Health Improvement Strategy 2015-2018 is considered as an addition from an accomplish and achieved programme whereby it went through the implementation of and improvement of programme from the Kingdom’s of Bahrain Health Agenda 2011-2014. From the previous experience, the Ministry has developed this strategic plan under the supervision of the Economic Development Board to ensure the implementation of the recommendation as compared to the previous programme that was supervised by the Ministry of Finance. The Ministry of Health also had had improved follow up of the implementation plan and also monitoring of each process. The Ministry had focus on the proper selection and accurate measurement indicators for achieving the set of objectives (Ministry of Health, Kingdom of Bahrain, 2015).
transient political environment which encourage discussion and change, there is a good partnership with the national, regional and international organisation (private health facilities, The Health Minister’s Council, EMRO-WHO, and World Bank), partnership with educational institutes, the strategic plan is in the direction of improving the current health system through government and the development of new system for performance evaluation. Meanwhile, the threat for this strategic plan are there is demographic and epidemiological transitions with an increase in Non-Communicable Disease and its associated risk factors, shortage of health professionals, and increase demand on health services.

Based on GAP analysis, the Health Improvement Strategy 2015-2018 is more focusing on the enhancement of Bahrain’s healthcare system and the implementation of the national health insurance scheme. The Ministry of Health, Bahrain has improved the primary healthcare services by providing 24 health centres and 3 health clinics. Despite the improvements that have been made, less of attention was given in prevention and control of non-communicable diseases in Bahrain. Bahrain is currently suffering from high incidence of obesity and other chronic non-communicable diseases which likely due to the globalisation, sedentary lifestyle, rapid increase in living standards and changes in eating habits such as eating fast food and eating outside. In order to tackle non-communicable diseases, wide range and effective health promotion strategies can be implementing. The health programme will be more effective with the support of multiple stakeholder and new health policies should be more focus on health behavioural modification in order to reduce the modifiable risk factors.

4.0 Lessons learned

From the cases given above, there are a few lessons that can be picked up for us to understand the practicality of each planning theory used. Rationalism is normally used in an ideal situation, where planners have more time, more resources, adequate facilities and tends to be very comprehensive or systematic in nature. It is usually the basis of all public health planning and easy to justify. It is often used in a stable political and economic environment. These factors combine to allow the planners optimal time for intelligence gathering, identifying problems, assessing all consequences and relating them to values and finally, choose the preferred option. Thus, rational health planning is often seen in a long term high understanding problems such as strategic health plans, project planning and service planning.

On the other hand, incremental theory is always being used in situation that needs urgent decision and explosive in nature, whereby proper decision making process is impossible to be made. For example, during outbreak or disasters that needs urgent attention and action from responsible authorities. Besides that, developing countries that have limited resources such as funding, manpower or specialty in gaining all possible sources of information to come out with effective and efficient programmes are the ones usually seen using this theory the most. Furthermore, the changes in community perception and acceptance on the programme together with public or political pressure posed on government to react on certain problems also contribute to the application of incremental theory. For example, with limited manpower and funding in conducting evidence- based programme on top of the resistance received from the community on the initial sterilization programme due to cultural and religious issues, making India government and World Bank to come out with another population planning programme that suit local need. Finally, mixed scanning theory is commonly applied in national programme with certain time frame and as continuation from previous programme.
The programme is ideally well-organized and has specific objectives, targets and indicators that have to be achieved within the time period. Full government support and involvement of many stakeholders are requirements needed in the application of mixed scanning theory. For example, NSP- NCD 2016-2025 was created based on evidence-based knowledge mostly provided by WHO to ensure its effectiveness. On top of that, as it is the continuation from previous NSP- NCD 2010-2014, it also took into account the evaluation results from previous years to overcome any gaps and limitations encountered.

5.0 Conclusion

From the cases study above, there are three most commonly used approaches in health service planning, namely rational, incremental and mixed scanning theories. The application of each theory is different depending on the resources availability, time limit, planning capacity, commitments from stakeholders, nature of the problem and local circumstances. Rationalism is best used in ideal situation and availability of adequate resources such as financial support, manpower and expertise to collect and analyse the information needed for decision making. On the other hand, incremental theory is commonly used in acute situation that needs urgent decision such as outbreak or disaster or long term programme with limited resources available and receives multiple feedbacks from various stakeholders. The commonest theory used, mixed scanning is usually applied in long term national programme which is developed by phases, and receive adequate resources in term of manpower, finance, knowledge and expertise in gathering relevant information.

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Declaration

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Author’s contribution:

Author 1: information gathering, review the literature and drafting of manuscript
Author 2: information gathering, review the literature and drafting of manuscript
Author 3: drafting of manuscript and editing the manuscript
Author 4: drafting of manuscript and editing the manuscript
Author 5: initiation of idea and final review of manuscript
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