



Health Issues and Green Space as Reinforcement for a Healthy Lifestyle in Malaysia

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Abstract

A rise in non-communicable diseases (NCDs) is predominantly due to unhealthy urban lifestyle such as work stress, being sedentary and unhealthy eating habits. This paper identifies health issues in Malaysia, and it reviews preventive measures to make people aware of the importance of healthy living. The paper contends that green space is beneficial, which encourage people to make good choices about their health. It reviews researches that show that green space supports greater outdoor activities and influence healthy behaviors of city residents. Thus, green space is a significant health promotion agenda that improves the urban quality of life..

Keywords: Health issues; awareness; green space; health promotion

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1.0 Introduction

Rapid urbanization all over the world can actually improve economic growth of the developing country. Nonetheless, the urbanization also leads to negative effects such as pollution, poverty and health issues. It inflicts urban residents' lifestyle to be inactive and more stressful. This leads to non-communicable disease (NCD), which becomes among the main cause of morbidity and mortality in Malaysia. A non-communicable disease (NCD) is a medical illness for a non-transmissible disease which includes heart disease, stroke, cancer, asthma, diabetes, chronic kidney disease, osteoporosis and more. The World Health Organization (WHO) reports that NCDs are by far the leading cause of death globally, which represent over 60% of all deaths. In Malaysia, heart attacks and strokes were found to be among the main death causes for NCDs cases (The Star, 2013). Health problems such as overweight and obesity can also lead to other health issues, including coronary disease, type II diabetes mellitus, cancer, and mental illness. National Health and Morbidity Survey reported that in 2006, 29% of Malaysian adults were categorized as overweight, and 14% were obese. The major cause of the pandemics is due to unhealthy urban lifestyle, such as work stress, being sedentary and unhealthy eating habits.

The paper identifies health issues in Malaysia and various awareness campaigns to improve healthy living in urban areas in Malaysia. The paper also proposes that public green space in an urban outdoor environment can be a solution and a beneficial place that encourages people to make good choices about their health.

2.0 Methodology

The paper identifies issues and efforts carried out in Malaysia, as well as the relationship of green space with health. The research reviews issues, campaigns and programs in recent years that relate to health concern in Malaysia. A literature search was conducted under the keywords on health, health issues, health campaign, physical activity, green space and quality of life. Research articles, journal papers that are accessible through electronic databases, government reports, newspapers, and proceeding papers published in recent years (i.e. 2004-2013) were selected. The reviews were summarized in three categories: health issues, health campaigns, and the significance of green space for health promotion. It is important to note that the study does not intend to be a systematic review of all accessible literatures, but relatively a summary which highlights issues on health, effort carried out by government and non-government agencies to make citizens aware of the NCDs, and how green space can influence health and induce positive health behaviors of urban residents.

3.0 Results and Discussion

3.1 Health Issues in Malaysia

It is identified that ageing, urbanization, and unhealthy lifestyle are the main causes leading to NCD risk factors. The World Health Organization (WHO, 2008) has identified two main

factors contributing to the prevalence of NCD risk factors: behavioral factor and metabolic risk factor. Behavioral risk factors include physical inactivity and current daily tobacco smoking. Metabolic risk factors are such as raised blood pressure and blood glucose, overweight, and obesity. So much often, the behavioral risk factors lead to metabolic risk factors. The increasing numbers of people suffering from overweight and obesity have become a major concern. It has become a phenomenon in developed and developing country. In relation to this, Malaysia has been labeled as a country that has the highest obesity problem in South East Asia and the sixth in Asia (The Star, 2013). Based on research from 1996 until 2006, the NCDs have shown rapid increase of percentage among citizens—such as high blood pressure (44%) and diabetes mellitus (80%). The worst circumstance was the increase in obesity cases by 220% (Berita Harian, 2012). In Malaysia, until 2006, 29% adults were reported as overweight and 14% were obese. Surprisingly, NCDs are also prevalent among Malaysian children, and the number is growing for the past decades (The Star, 2013). Based on research by the Universiti Kebangsaan Malaysia (UKM) in 2008, 25% of preliminary school children are overweight or obese (The Star, 2013). Obesity is just one of the examples of a type of pandemic implicated by physical inactivity in Malaysia.

Statistic has also shown that the number of hospitalized patients in Peninsular Malaysia due to diabetes increased from 19,629 cases in 1991 to 30,661 cases in 2001 (Ministry of Health Malaysia, 2011). Therefore, in ten-year duration, there was an increase by 56% of the cases. According to Malaysia Diabetic Association (PDM, 2006), nine out of ten cases of diabetes are type II diabetes. It means that, most people who get type II diabetes are overweight. Other than diabetes, hypertension, and heart disease problems, the list of NCDs or also known as diet-related diseases include cancers, chronic kidney diseases, osteoporosis, gallbladder, and chronic lung diseases. This paper has summarized the reviews of research and reports on various health issues in Malaysia into seven categories as shown in Table 1.

Table 1: Seven categories of prevalent health issues in Malaysia

Health issue	Source	Findings
1. Heart disease	National Heart, Lung, and Blood Institute (2007); Consumers Association of Penang (2012); Li et al. (2013)	6 new cases of stroke every hour in Malaysia; Middle-aged women & family history have a high risk of heart disease; Obesity & physical inactivity contribute to coronary heart disease in women.
2. Chronic disease & health problem	Centers for Disease Control and Prevention (2011); Ruhana et al. (2011); Consumers Association of Penang (2012); New Straits Times (2012)	80% of older adults have one chronic condition, and 50% have at least two; 7 out of 10 Malaysian adults suffer from chronic diseases; People of 40-45 years old have the highest prevalence of health problems; Consumption of unhealthy foods & modern sedentary lifestyle have led to steep rises in NCDs; 60.7% Malaysians are living with NCDs; 38% - 40% of total deaths are due to NCDs.

3. Diabetes	Letchuman et al. (2010); Consumers Association of Penang (2012); Second National Health and Morbidity (2010)	Diabetes ranked 6 th for men and 5 th for women from the top 10 total burden of diseases in Malaysia; Diabetes is higher in urban by 12.2% as compared to the rural area (10.6%); Diabetes is prevalent among Indians (19.9%), Malays (11.9%) & Chinese (11.4%); 14.9% and 43% of Malaysians aged above 30 suffer from diabetes and hypertension; 3.4 million Malaysians are diabetes sufferers; 4 out of 5 people with diabetes will die of heart disease.
4. Cancer	Maznah et al. (2011); Lim (2002); Insight Sabah (2013); The Star Online (2012; 2013); Third National Cancer Registry Report 2008; Health Ministry (2007)	Cancer is the fourth leading cause of death in Malaysia; Breast & cervical cancer are leading causes of death among women; Breast cancer is prevalent among women of age 50-60 years old; Women at 40 and above are in the high-risk age group for breast cancer; Over 3,700 women are diagnosed with breast cancer every year; Chinese community being the worst affected, followed by the Malays and Indians.
5. Obesity & overweight	Wan Nazaimoon et al. (2011); Consumers Association of Penang (2012)	Obesity among adults aged between 45-49 years old has increased; Indian female is subjected to obesity; People with cardiovascular risk factors tend to be overweight and obese; 54% of adult Malaysians are either obese or overweight.
6. High cholesterol	Consumers Association of Penang (2012)	20.7% of adults over 18 suffering from high cholesterol
7. Depression	Abdul Rashid et al. (2011); Borneo Post Online (2011)	Unmarried, unemployed, earning less income and living alone elderly were exposed to the risk of being depressed; 19.5% of the older adult tends to have depression compared to other age group; People with mental health problems and depression tend to be suicidal.

(Source: Author)

3.2 Awareness Campaigns and Programs

There is a growing focus on health related issues in the media and an increasing government spending on health campaigns in Malaysia. For example, the initial steps of prevention and health promotion and campaigns have been carried out by the Department of Health Malaysia such as the '10,000 steps challenge'. There are many promotions to make the public aware of healthy living.

To increase awareness and prevention against NCDs, for example, the Ministry of Health took effort that launch the first phase of 'healthy lifestyle campaign' in 1991 with a thematic campaign of cardiovascular diseases (Tee, 1999). Focusing on diseases, encouraging healthy dietary pattern and be physically active, the campaign continued for six years with different themes per year. The themes include sexually transmitted disease, food safety, childhood diseases, cancers, and diabetes mellitus (Tee, 1999). Under the framework of National Plan of Action on Nutrition (NPAN), the healthy lifestyle campaign launched its second phase in 1997 to 2002 to strengthen the aims and objectives for healthy living by concentrating on behavioral changes. Other than effort taken by the government, the NGOs and private companies are also actively promoting and joining forces with the Health Ministry to conduct a variety of health programs for their workers and the public in general. The paper has summarized efforts in terms of recent campaigns for a healthy lifestyle for Malaysian citizens into six categories, as presented in Table 2. Among the campaigns carried on are: 'Happy and Healthy Family', 'My Healthy Body', and 'Sihat 1Malaysia' campaigns with the

aims to motivate and educate the public on the importance to adapt and maintain a healthy and active lifestyle.

Table 2: Six Types of Awareness Campaigns on Healthy Lifestyle in Malaysia (2004-2012)

Campaign's Title	Source/Year	Objectives
1) HEALTHY LIFESTYLE 100PLUS Live Active Campaign; Healthy Lifestyle Campaign; Bicycle campaign; 1Health 1Malaysia; Perodua Health Watch; Sihat 1Malaysia; 10,000 steps a day; Jacob's Walk Of Life 2008; Healthy Community Tour Carnival And 10,000 Step Merdeka Programme; My Healthy Body; Happy And Healthy Family; Kempen Kesedaran Kesihatan Supersteps -Berjalan Untuk Sihat; Health Awareness Campaign	The Star Online (2008; 2011; 2012); Consumers Association of Penang (2012); Blis2.bemama.com (2004; 2009); New Straits Times (2012); The Star Online (2009; 2010); Malaysian Liver Foundation (2007); Hot FM (2012); Kosmo (2012); Komuniti Desa (2012); Hospital Kuala Penyu (2012); Borneo Post Online (2012)	Promote a healthy lifestyle by having a right diet, exercise, avoid smoking and overcome stress, sport activities, blood donation and medical check-up; Promote healthy communities by walking and running for health; Force the community to exercise by inviting housewives and career women to exercise at least 2 times a week, 30 minutes every session
2) MENTAL HEALTH Mental Health Awareness Week; Less Salt Please; Mental Awareness Campaign	Blis.Bernama.com (2008); New Straits Times (2013); Kementerian Kesihatan Malaysia (2012)	Promote mental awareness focusing on depression and suicide prevention; Educate the public on mental illnesses; Encourage the potential patients to seek help instead of suffering in silence; Educate caterers, chef's and cafeteria owners on reduction of salt in cooking; Promote and educate people's awareness on using and consuming less salt in their food.
3) OBESITY Care for Health, Prevent Obesity; Obesity and our Environment	Malaysian Pharmaceutical Society (2011); The Star Online (2009)	Increase public awareness of diabetes, obesity and its prevention; Promote public interest and educate them about including exercises into their daily life, as well as detailing the benefits of doing exercises.
4) DIABETES Global Diabetes Walk; Diabetes Awareness Campaign; Kempen Kesedaran Diabetes	The Star Online (2012); Berita RTM (2012); Ghesundheit (2012)	Promote diabetes awareness; Expose the public about the risk of diabetes and free medical check-up.
5) ANTI-SMOKING 'Tak Nak'; Blue Ribbon; Malaysian Blue Ribbon Campaign	Vinsence (2009); The Star Online (2013); New Straits Times (2013)	Empower and encourage the public to practice a healthy lifestyle and protect their loved ones from secondhand smoke; Advocate the community to take serious commitment towards creating a tobacco-free environment.

<p>6) BREAST CANCER Towards Growing Awareness; Wear Pink For A New Bra; Breast Cancer Awareness; Women's Wellness Day; A Touch Of Love. A Touch Of Life</p>	<p>College of Radiology (2012); New Straits Times (2012; 2013); Insight Sabah (2013); The Star Online (2013)</p>	<p>Raise awareness and educate communities about breast cancer among adult women; Emphasize the importance of early detection as the best way of tackling breast cancer; Focus on prevention through lifestyle modifications.</p>
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(Source: Author)

The initiative to improve public health on the part of government has undoubtedly contributed to the community (Lim, 2009). Nevertheless, some issues occurred regarding the effectiveness of the campaigns to achieve their objectives. Despite all the campaigns, the number of NCDs' patients in Malaysia continue to rise throughout the years. It is suggested that Malaysia is still in the 10th ranked for prevalence of diabetes and the 8th biggest sugar consumption in the world in 2009 (Kassean, 2012). As the government promotes and produces various health campaigns and policies in reducing the occurrence percentages of NCDs, the number of patients with diabetes, hypertension, and hypercholesterolemia continues to increase. Among the causes of this ineffectiveness are failing to get the public's attention and lack of participation from most of healthcare professionals in the campaigns promoted (Rokiah et al., 2013). Other than that, lack of support and cooperation from other ministries, agencies and leaders contributing to the aggressive promotion, cultivation, and advertise of unhealthy foods and tobacco in the mass media without limitation. Nonetheless, more promotion of a healthy lifestyle and health awareness of the government and non-governmental organizations should be continued and more aggressively promoted.

3.3 Green Space as Reinforcement for a Healthy Lifestyle

In regards to this, the built environment can play a positive reinforcement in promoting a healthy lifestyle for urban residents. Green spaces can actually be one of the health promotion agendas to combat NCDs and promote healthy lifestyle of citizens in Malaysia. Promotion of health seeking behavior through green space that is accessible to urban residents is becoming critical nowadays, in light of the increasing levels of the pandemics. Recurrent studies have shown that green space and health are indistinguishably having been found to link to one another. As such, together with diet, outdoor activities are known to be an important determinant of health and well-being. For example, walking and outdoor sports in open space and environment filled with greenery are increasingly being recognized as some of the best ways to improve general health (Pretty et al., 2007). It is said that exercising in an outdoor environment has a better impact on health compared to indoor environments. Urban environments that lack public gathering places can encourage sedentary living habits. On the other hand, the provision of attractive parks and open spaces can facilitate opportunities for exercise (Jackson and Kochtitzky, 2001). The availability of green spaces near home is believed to increase the chances of walking outside of the residence, which helps to maintain a high physical functional status (Pretty et al., 2007). Green space provides opportunities for low-intensity, long-duration activities, such as walking and cycling. It provides people with space and facilities for exercise such as jogging track, bicycle lane,

outdoor gymnasium and court to facilitate an active environment. Therefore, walkability to spaces are also important. Cubukcu (2013) highlighted that several aspects such as land use, accessibility, walking and cycling comfort and environmental upkeep are among the criteria to attract people to be active.

Research also shows that visual stimulation of an outdoor exercise encourages people to work out harder (Sugar, 2011). The outdoor exercise can boost mood and self-esteem. People simply enjoy exercising outdoors more than indoor, therefore there is more chance that they would continue doing it. In other words, the activities are the prescription and an effective intervention for sedentary living that nowadays have become prevalent in urban areas. Mitigating and adapting to these human-induced activities by promoting greener public infrastructure may benefit citizens, government and the environment in efforts to reduce morbidity and mortality linked to the sedentary lifestyle. Realizing the fact, Malaysia is taking initiative to afford more green spaces and recreational areas for urban community to improve their quality of life (Rancangan Malaysia Kesepuluh 2011-2015, 2010).

4.0 Conclusion

Quality of urban living and residents' way of life involves a complex interrelationship between a wide variety of physical environments and social opportunities. These, in turn, determine residents' physical and psychological needs. Due to unhealthy lifestyle, health promotion has become a prime concern in Malaysia because of the increase in life threatening illnesses. A proper green space planning is needed so that it facilitates urban residents with spaces for recreation, social and leisure activities.

Therefore, it is important to cater for access, good-quality and well-maintained green space in a city. Nearby greenery-filled public areas and easy-to-walk places should be emphasized in urban planning for the development and redevelopment of towns and cities. A walkable neighborhood can encourage physical activity while contributes to better air quality of an environment. The connection of people to these green spaces provides interaction and close contact with nature in urban places. Greener public infrastructure will attract citizens for frequent-visits of the public green space for health instead of treating it as a place that they visit once in a while.

Unfortunately, Malaysia has not yet achieved a satisfactory degree of green space design and development to facilitate residents with a healthy environment. There are few restrictions on accessing and having contact with the urban green space due to planning and design issues. These include limited green areas, problems of accessibility and connectivity, issues of safety, automobile dependent, environment-low of green network, environmental degradation and also maintenance and management issues. For example, at present, regulations in Malaysia require the land of every new development to consist of 10% of green space. Nonetheless, there is no stipulation on the quality of the provision. Thus, in reality, this can mean that the green space development can be left with no landscaping, play equipment or it can be just bare open ground without greenery. Hence, there is a need to identify significant physical environmental attributes that can facilitate and modify the behavior of residents to be more conducive to health. Future research on the direct

relationship between green space and health is highly promoted for better understanding on this topic, and to assist future design plan to achieve sustainable city in Malaysia.

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References

- Berita Harian (2012). Gaya hidup punca ramai berpenyakit. Retrieved July 30, 2012, from <http://pmr.penerangan.gov.my/index.php/penafian/7085- html>
- Cubukcu, E. (2013). Walking for sustainable living. *Procedia-Social and Behavioral Sciences*, 85, 33-42.
- Ellaway A., Macintyre S., & Xavier B. (2005). Graffiti, greenery, and obesity in adults: secondary analysis of European cross sectional survey. *BMJ*, 331, 611 - 612.
- Gatab, T. A. & Pirhayti, S. (2012). The effect of the selected exercise on male students' happiness and mental health. *Procedia-Social and Behavioral Sciences*, 46, 2702-2705.
- Jackson R.J., & Kochtitzky, C. (2001). *Creating a Healthy Environment: The Impact of the Built Environment on Public Health*. Washington DC.
- Kassean, H. (2012). Towards a more effective health promotion campaign for diabetes in Mauritius. *Open Journal of Preventive Medicine*, 2(2): 257-264 doi:10.4236/ojpm.2012.22037
- Khotdee, M., Singhirunnosom, W., & Sahachaisaeree, N. (2011). Effects of green open space on social health behaviour of urban residents: A case study of communities in Bangkok. *Procedia Social and Behavioral Science*, 36, 449-455.
- Letchuman, G. R., Wan Nazaimoon, W. M., Wan Mohamad, W. B., Chandran, L. R., Tee, G. H., Jamaayah, H., Isa, M. R., Zanariah, H., Fatanah, I., & Ahmad Faudzi, Y. (2010). Prevalence of diabetes in the Malaysian National Health Survey III 2006. *Medical Journal Malaysia*, 65 (3), 173-179.
- Lim, G. C.C. (2002). Overview of cancer in Malaysia, *Japanese Journal of Clinical Oncology*, 32, (1): 37-42.
- Malaysia Diabetes Association (2006), Retrieved July 24, 2012, from <http://www.diabetes.org.my/article.php>
- Ministry of Health Malaysia (2011). Annual report Ministry of Health Malaysia 2011. Retrieved July 30, 2012, from <http://www.moh.gov.my>
- National Health and Morbidity Survey (2011). Fact Sheet 2011. Ministry of Health Malaysia, Retrieved August 25, 2013, from www.moh.gov.my/images/.../nhms%2011%20fact%20sheet.pdf
- National Heart, Lung, and Blood Institute (2007). *The healthy heart handbook for woman*. Retrieved August 25, 2013, from <http://www.nhlbi.nih.gov/>
- New Straits Times (2012). Carnival raises health awareness, concerns. Retrieved August 25, 2013, from <http://www.nst.com.my/streets/johor-1.143168>

Pretty, J., Peacock, J., Hine, R., Sellens, M., South, N., & Griffin, M. (2007). Green exercise in the UK countryside: effects on health and psychological wellbeing, and implications for policy and planning. *Journal of Environmental Planning and Management*, 50(2): 211-231.

Rancangan Malaysia Kesepuluh 2011-2015, (2010). Retrieved August 20, 2013, from <http://www.epu.gov.my/web/tenth-malaysia-plan>

Rokiah Abu Bakar, Siti Hajar binti Abu Bakar, and Abd. Hadi Zakaria (2013). Children's perceptions of anti-smoking campaign strategy in Pantai Dalam, Kuala Lumpur: A pilot study. *Jurnal Sains Kesihatan Malaysia*, Vol 11 (1): 41 – 47.

Rozita Abd-Latif, Maizan M. N., Mohd Sofian O., Abdul Razak A. & Faridah K. (2012). Influence of physical environment towards leisure time physical activity (LTPE) among adolescents. *Procedia-Social and Behavioral Sciences*, 38, 234-242.

Sabau, E., Niculescu, G., Gevat, C. & Lupu, E. (2011). The attitude of the elderly persons towards health related physical activities. *Procedia-Social and Behavioral Sciences*, 30, 1913-1919.

Sugar, J. (2011). Summer exercise: Indoor vs. outdoors. Retrieved July, 30, 2012 from <http://www.fitsugar.com/Pros-Cons-Indoor-Outdoor-Exercise-18264480>

Tee, E.S., (2008). Preventing cancer (2008, September 14) *The Star*. Retrieved from <http://thestar.com.my/metro/story>.

The Star Online (2012). A campaign to promote healthy lifestyle among Malaysians. Retrieved from <http://thestar.com.my/metro/story.asp>

The Star Online (2013). Healthy living campaign. Retrieved August 30, 2013, from <http://thestar.com.my/health/story.asp?file=/2012/6/17/health/11473233&sec=health>

World Health Organization (2013). Malaysia: Health profile. Retrieved August 5, 2013, from http://www.who.int/nmh/countries/mys_en.pdf