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Healthy City Movement creating a more equitable society with equal opportunities http://www.cuhk.edu.hk/med/hep/fhc/index.html

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City and Well-being: Is it positive or negative?

Before the turn of the Century, there were only few mega-cities in this region. In 1950, only one third of the world's population lived in city and half a century later it had risen to half and expected to be two-thirds by 2050 (WHO 2006). With rapid economic development in the Western Pacific Region, one would expect a rapid expansion of mega-cities. The sudden influx of people into cities would lead to deficit in material conditions, psycho-social resources and political engagement resulting in a poverty of empowerment at the individual, community and national levels. The poverty should be considered in terms of social conditions, sometimes expressed as "relative marginality" contributing to chronic stress, depression and feelings of bitterness, hopelessness and desperation (Polit, 2005).

The City, Health and Well-being conference report in 2011 has highlighted the problems of rapid urbanization in Asia (Taylor, 2012). In the report, Athar Hussain (London School of Economics and Political Science) described how the pace and scale of urbanisation in Asia was impacting on what he termed 'the atlas of poverty', through an urbanisation of poverty which '*accentuates and brings to light certain aspects of inequality or deprivation … [such as] housing, infrastructure, [and] access to education*'. Scholars in Hong Kong commented on impact of city development on social isolation as result of disconnected new towns and weakening of neighbourhood leading to poor health, e.g., decrease walkability, frailty among elderly and suicidality in new towns. However the city development would bring in opportunities to improve likelihood such as new jobs, new business and also an efficient transportation system as in Hong Kong which has one of the best indicators for health in terms of longevity and infant mortality. City development has two sides of the coin. In the report, Sharon Friel's (Australian National University) presentation made clear that health inequities (including in cities) are products of many factors operating at different scales and across different fields: the distribution of power, money and resources; daily living conditions; and material, psychosocial and political empowerment. Healthy city movement should re-address the issue of equity and equality.

Health in Equity: What does it mean?

What is equity? The doctrine of equity would be traced back to the English legal system in the twelfth century. The Common Law has emerged to establish general rules to provide certainty. However it was found that strict application of legal rules might also lead to injustice as hardship would arise. The doctrine of equity came in to restrain the full exercise of legal rights that would be unconscionable. The maxim of equity is not intervening in respect of every wrong but only to intervene in preventing an unconscionable reliance upon legal rights. Equity still follows the law but will not permit '*a statue to be used as an instrument of fraud*'. Another important doctrine is, '*equity sees as done that which ought to be done*'. In city development, it would imply that it should not be any unconscionable acts upon the

citizens. The rules and regulations laid down by law (statue) for city development should avoid being misused as instrument to jeopardize the daily lives of the residents. If city development is meant to improve well-being of the residents, it ought to be done accordingly.

The basic necessities are generally higher in urban areas and high urban income average is created by affluent minority. In the poorest settings, urban populations are experiencing adverse, 'obesogenic' shifts on dietary composition, which are taking place at much faster speed than the potential benefits. The residential density, neighbourhood safety from crime, traffic, injury, and increasing reliance on motor cars are factors shifting towards physical inactivity in both developed and developing countries (Kjellstrom T & Hinde S, 2007). Child health is also affected indirectly with globalization and urbanization as result of ignored care as result of long working hours of women workforce. Study in this region has shown that the epidemics of obesity is hitting medium size city like Macao with rapid economic development recently (Lee, Ho and Keung, 2011).

Can City Development enhance equity?

However urbanization can be beneficial for health and the improvements in mortality and morbidity rates have been observed in highly urbanised countries, e.g., Japan, Korea. Creating healthy urban living conditions is possible as long as a supportive political structure exists. Social system based on democracy and strong equity policies have flourished with great social and health achievements seen in many developed countries, e.g., Nordic countries. However mainstream social and economic development in the 21st century is not focusing on social equity. Health inequalities arise not only from poverty in economic terms but also poverty of opportunity, of capability and of security. In Hong Kong, the results of the community diagnosis of over ten districts have identified some important key issues to be tackled for sustainable urban development and healthy governance. The residents were found to have sub-optimal level of physical activities and healthy eating, high prevalence of chronic illnesses, high level of stress, low level of connectedness as reflected by neighbourhood and interpersonal relationship, concerns with availability and accessibility to facilities for social support and enhancement of healthy living.

One needs to study how the *cultural*, *social* and *political* conditions enhance or diminish opportunities for population to be healthy. The determinants of health actions at the macro-level analysis focus on social system and social change. One would draw on the model of '*diffusion of innovation*' to study the factors related to adoption of innovations within social system (Rogers E, 1995). The WHO Commission on Social Determinants of Health (Marmot, Friel, Bell, et al, 2008) recognised the importance of the urban setting as a social determinant of health. Its Knowledge Network on Urban Settings (KNUS) (WHO, 2007) recommended a broad spectrum of interventions, including:

- building social cohesion,
- improving environments for health,
- accessible primary health care for all,
- healthy settings as vehicles,
- pro-active and coordinated urban planning, and good urban governance.

Re**ciprocity of Healthy City and City Governance**

The KNUS drew the focus on interventions leading to 'healthy urbanisation' by tackling urban environment under three key perspectives:

- The physical environment to improve housing, provision of safe water and adequate sanitation, solid waste management, vector control and improved indoor air quality (**Healthy Municipality/Village/Island**)
- The social environment to improve education (**Health Promoting School/Health Promoting University**), better access to improved health services (**Health Promoting Health Care Setting**)
- The Governance environment to enhance participatory processes, community leadership development, and the empowerment of civil society through improved knowledge and information (**Healthy City**)

While we are facing the new epidemics of Non-communicable Diseases (NCD) leading to UN declaration on prevention and control of NCD (UN, 2011), we are also facing the emerging new and old communicable diseases (SARS, Avian Flu, food poisoning) as result of ecological change, urbanization, globalization, population movement, changing living environment, changes of farming (Lee, 2013). The burden of mental and substance disorders has also increased by over 30% between 1990 and 2010 and findings in 2010 indicated the disorders accounting for 183.9 million DALYs (disability adjusted life years) or 7.3% of all DALYs worldwide being the leading cause of DALYs (Whiteford, Degenhardt and Rehm, 2013). We are now facing the 'Triple Burden' of diseases and will need to develop not only more cost effective intervention but also interventions to be taken in the context of people's daily living.

Healthy Setting approach tackling emerging communicable disease

Systemic review has showed that many basic and low cost interventions in health care setting such as wearing facemasks, hygienic practice of hand washing, could reduce the spread of respiratory viruses (Jefferson, Foxley, Del Mar, et al, 2008). The authors concluded that routine long term implementation of some physical measures to interrupt or reduce the spread of respiratory viruses might be difficult but simple and low cost interventions could be useful in reduction of spread of viruses. The question is how to translate them into day to day practice. Health promotion through municipal setting can provide an effective framework for integrative health promotion and constitute a platform for generating healthy urban policies (Kjellstrom lead writer and others, 2007).

In Hong Kong, the concept of Healthy City and Health Promoting School has shown to be good measures to tackle the burden of emerging communicable disease during the period of SARS (Lee and Abdullah, 2003; Lee, Cheng Yuen et a, 2003). Operation UNITE, a community initiated movement comprising community leaders from all sectors was established to help the community in fighting against SARS in 2003. As as a continuing effort is needed to drive

hygienic movement in the fight against SARS, Operation UNITE has conceived a Hygiene Charter with the academic and professional advice by the Chinese University of Hong Kong, which aims at encouraging individuals, as well as business and industry sectors, to pledge their commitment to improve hygiene practices for the good of all (Lee and Chan, 2005). The Hygiene Charter has made a significant impact on different sectors in maintaining hygienic environment of their respective settings (Lee, Cheng, Yuen, et al, 2004). Since 2003, Hong Kong has encountered and sailed through numerous threats of emergence of different types of communicable diseases.

Municipal setting can strengthen the community response to potential outbreaks of communicable disease (Lee and de Leeuw, 2009) as well as closer partnership with primary health care setting and hence improvement of accessibility (Lee and Chuh, 2010). The City Administration has the responsibility as well as authority to implement and monitor good hygienic standards in different sectors within the locality. The administration needs to ensure not only city development not jeopardizing the rights of residents living in hygienic conditions but also leading to improvement of hygiene and better access to hygienic measures. This would avoid the potential pitfalls of city development compromising the healthy living of the residents. This would facilitate pro-active and coordinated city planning, and good city governance.

Healthy Setting approach tackling new epidemics of NCD

The UN Declaration In 2011 called for action to reduce risk factors and create health promoting environments through:*"…the implementation of multi-sectoral, cost-effective, population-wide interventions in order to reduce the impact of the common non-communicable disease risk factors, namely tobacco use, unhealthy diet, physical inactivity and harmful use of alcohol, through the implementation of relevant international agreements and strategies, and education, legislative, regulatory and fiscal measures."*. However how this would be achieved? Prevention is only possible if sustained actions are directed both at individuals and families; as well as the boarder social, economic and cultural determinants of NCD (Mant, 2004; Marmot, Friel, Bell et Al, 2008). The context of health care has changed with people now living in a more risky society, and non-medical factors such as the cultural context, the occupational context, the support networks, socioeconomic context, all influence the diagnostic and therapeutic approach and the final outcome (Di Blasi Z, Harkness E, Ernst E, et al, 2001).

The increasing rates of NCDs, associated with the rise in behavioural risk factors such as smoking, alcohol consumption, sedentary behaviour, and unhealthy eating are compounded by often weak institutional arrangements to tackle these diseases and risks (Global Burden of Disease Study 2013 Collaborators, 2013; Jamison, Summer, Alleyne et al, 2013). This is reflected by higher Age-standardised rates of cardiovascular disease in all six World Bank regions than in high-income countries (Jamison, Summer, Alleyne et al, 2013). In more economically developed countries, children in lower socio-economic status (SES) tend to have higher prevalence of obesity/overweight and countries not economically developed or undergoing economic development, prevalence is higher in higher SES (Lobstein, Baur and Jackson-Leach, 2010). However the association between SES and adiposity in children is becoming predominately

inverse based on a systematic review of cross sectional study during 1990-2005 (Shrewsbury and Wardle, 2008). A strong gradient still exists among different SES for various health-related behaviors in Hong Kong (Lee, Chua, Chan et al, 2015).

Obesity is an important risk factor for morbidity in children, such as asthma, and musculoskeletal and mental health problems and also accounts for premature morbidity and mortality in adulthood (Reilly and Kelly, 2011). Rapid urbanisation is adverse rather than conducive for health. There is a shift in consumption of wide game beef or small house/land-holder-reared poultry and pork to industrially-reared beef, pork and chickens in less than 50 years in post-industrial nations but will only take about 25 years in newly industrialized nations (Dixon Friel, Omwega et al, 2007). The residential density, neighbourhood safety from crime, traffic, injury, and increasing reliance on motor cars are factors shifting towards physical inactivity in both developed and developing countries (Kjellstrom T & Hinde S, 2007).

Apart from efforts in tobacco control and control of alcohol consumption, the City administration needs to put efforts in urban planning to increase walkability of the residents, population density more evenly distributed, stronger neighbourhood and promoting cohesiveness so safety and security can be enhanced , better traffic control to avoid accidents and injuries, and creating adequate space and facilities to encourage physical activities for the local residents. Governments in many low-income and middle-income countries that have curbed their burden of infectious mortality are now facing a growing burden of deaths from road traffic injuries with increasing rates of urbanisation and motorization (Global Burden of Disease Study 2013 Collaborators, 2013; Jamison, Summer, Alleyne et al, 2013). This is a potential area that the city administration would improve at local level. The city administration would expand the concept of food safety beyond food poisoning to cover food posing high health risks. Greater awareness of nutritional labelling, promoting of healthy eating environment and healthy food markets and stalls, easy access to healthy food products are potential initiatives to be taken at local level.

If the city administration can implement measures to promote healthy eating and physical activities, controlling tobacco and alcohol consumption as well as substance misuse, this will have bad impact on health of the local population. This will also lead to higher level of safety and security with closer connectedness and good neighourhood. It becomes a 'win-win' situation

Building a "Sunshine' and 'Smiling' City

Rapid economic growth and urbanization, knowledge based economy, advancement of technology, changes of family structure, loss of neighbourhood relationship, lack of time for communication and inter-personal interaction would put individual vulnerable to mental distress as resources for emotional support are depriving. Deficit in material conditions, psycho-social resources and political engagement results in poverty of empowerment at the individual, community and national levels. The poverty should be considered in terms of social conditions, sometimes expressed as "relative marginality" contributing to chronic stress, depression and feelings of bitterness, hopelessness and desperation (Polit, 2005). Among the urban poor, the lack of financial resources and high cost of urban living, poor living conditions, and physical exhaustion from lack of access to affordable transportation and long working hours, would contribute to sustained and chronic stress. Adverse events facing daily life such as overcrowding,

polluted and unhygienic environment, high level of violence, dependency on cash economy, and poor social support all have deleterious effects on urban health for the poor

Preventive measures to reduce burden of mental health should be accorded high on public health priority (Baird, Riba, Lee et al, 2012). The determinants of health particularly mental health is very complex so a public health approach addressing the three tiers of prevention especially primary prevention by minimization exposure to risk factor by empowering the public the skills in identifying stressors and enhancement of exposure to positive factors by strengthening interpersonal relationship, and neighbourhood would be of paramount importance.

If the city would put greater efforts in alleviating poverty by improvement of living environment for those in low SES in terms of housing, transport and better social support, this would become a good primary preventive measure in removing the stressor. The city would do more to improve the social environment by strengthening neighbourhood, spirituality, sense of belonging and connectedness as protective factor for mental well-being. The city would then turn from a '*sad and blue*' city to '*sunshine and smiling*' city.

Healthy City: New Paradigm for City Development in bringing Equity

The concept of Healthy City would help to address the wider social determinant of health as an effective intervention not only improving population health but also equitable and sustainable city development. Parallel development of other healthy settings would act in synergy with healthy city development and high level of health literacy can be achieved within communities (Figure 1) Residents are likely to lead to a collective deeper understanding of social, environmental, organizational and political factors that impact on health and they are likely to be more empowered to engage in debates around local health issues, and more enabled to collaborate with others in advocating for change at community and government level. This would help to diminish social inequity, increase social connectedness and creation of harmonious society.

Figure 1. Healthy City and Healthy Settings

Healthy City is therefore solution to tackle many emerging issues of rapid urban development so we would enjoy the benefits of urbanization and miminization of the adverse effects.

Professor Albert Lee April 8 2016.

Reference

Baird M, Riba M, Lee A, et al (2012). Managing the interface in primary care mental health clinics.. *Companion to Primary Care Mental Health*, In Ivbijaro G (Ed). World Organisation of Family Doctors and Radcliff Publishing, London, UK.

Di Blasi Z, Harkness E, Ernst E, et al (2001). Influence of context effects on health outcomes: a systematic review. *Lancet*, 357:757–762

Dixon J, Friel S, Omwega AM, Donati K, Burns C, Carlisle R (2007). The health equity dimensions of urban food systems. *J Urban Health* 84, supl 1, 118-129. http://dx.doi.org/10.1007/s11524-007-9176-4

Global Burden of Disease Study 2013 Collaborators (2013). Global, regional, and national incidence, prevalence, and years lived with disability for 301 acute and chronic diseases and injuries in 188 countries, 1990–2013: a systematic analysis for the Global Burden of Disease Study 2013. *Lancet*, http://dx.doi.org/10.1016/ S0140-6736(15) 60692-4

Jamison DT Summers LH, Alleyne G, et al (2013). Global health 2035: a world converging within a generation. *Lancet*, http://dx.doi.org/10.1016/ S0140-6736(13)62105-4

Jefferson T, Foxlee R, Del Mar C, et al (2008). Physical interventions to interrupt or reduce the spread of respiratory viruses: systematic review. *BMJ*, 336: 77-80.

Kjellstrom T (Chair and Lead Writer) et al, (2007). *Our cities, our health, our future: Acting on social determinants for health equity in urban settings.* Report of the Knowledge Network on Urban Settings, WHO Commission on Social Determinants of Health. WHO Centre for Health Development, Kobe, Japan 2007. http://www.who.int/social_determinants/resources/knus_report_16jul07.pdf

Kjellstrom T & Hinde S (2007). *Car Culture, transport policy and public health*. In: Kawachi I, Wamala S, eds.. Globalisation and Public Health. New York, Oxford University Press

Lobstein T, Baur L, Jackson-Leach R (2010). In Waters E, Swinburn B, Seidell J, Uauy R. *Preventing Childhood Obesity*. Wiley Blackwell.

Polit KM (2005) *Anthropology and Medicine* 12(3): 225-237

Lee A., Keung V., Lo A., et al (2016). Healthy School environment to tackle youth mental health crisis. *Hong Kong Journal of Paediatric*, 21 (2): forthcoming

Lee A. Chua HW, Chan M, et al. (2015). Health disparity still exists in an economically well-developed society in Asia. *PLoS One* 2015; 10:6 e0130424

Lee A (2013). *Impact of Rapid Urbanization on Health.* Video conferencing. NA7123 Global Health Promotion of Master course in Health Promotion, University of Brighton, UK 6 Dec 2013.

Lee A., Ho M., Keung V (2011). Global Epidemics of Childhood Obesity is hitting a quiet corner in Asia: Case study in Macao. *International Journal of Paediatric Obesity* 2011; 6 (2-2): e252-e256.

Lee A, Chuh ATT (2010). Facing the threat of Influenza Pandemic – Roles of and Implications to General Practitioners. *BMC Public Health*, 10:661 http://www.biomedcentral.com/1471-2458/10/661

Lee A and de Leeuw E (2009). *Municipal approaches to community response and resilience in the face of pandemic influenza.* WHO Global Health Promotion Conference Nairobi, Kenya, 2009 (Consultancy for WHO HQ, Geneva, 2009.)
Lee A, Chan KM (2005). Hygiene Charter: Laying down the spirit of Healthy City. Gallery Paper. *Journal of Epidemiology and CommunityHealth*, 59:30
Lee A, Cheng FFK, Yuen HSK, et al (2004). Significance of Hygiene Charter towards Different Sectors in Hong Kong. *Asia Pacific Journal of Public Health* Special Issue on Health Promoting Schools, S12-16
Lee A., Abdullah ASM (2003). Severe Acute Respiratory Syndrome: Challenge for Public Health Practice in Hong Kong. *Journal of Epidemiology and Community Health*, 57:655-658
Marmot, M., Friel, S., Bell, R., et al. (2008). Closing the gap in a generation: health equity through action on the social determinants of health. *Lancet*, 372, 1661-69.
Mant D (2004). Principle of Prevention. In: Jones R, Britten N, Culpeper L, et al, Eds. *Oxford Textbook of Primary Medical Care.* Oxford, UK: Oxford University Press.
Polit KM (2005). The Effects of Inequality and Relative Marginality on the Well-being of Low Caste People in Central Uttaranchal. *Anthropology and Medicine*, 12(3): 225-237
Reilly JJ, Kelly J (2011). Long-term impact of overweight and obesity in childhood and adolescence on morbidity and premature morality in adulthood: systematic review. *Int J Obes*, 35:891-98
Rogers E (1995). *Diffusion of Innovations*. New York, NY: The Free Press; 4th Edition
Shrewsbury V, Wardle J (2008). Socio-economic status and adiposity in childhood: a systematic review of cross sectional study 1990-2005. *Obesity*,16(2): 275-284.)
Taylor M (2012). *Cities, Health and Well-Being: Conference Report*. Organised by LSE Cities at the London School of Economics and the Alfred Herrhausen Society, in partnership with the University of Hong Kong. November 2011, Hong Kong
United Nations General Assembly (2011). *Political declaration of the high-level meeting of the general assembly on the prevention and control of non-communicable diseases.*(United Nations, New York, September, 2011.
Whiteford HA, Degenhardt L, Rehm J, et al (2013). Global burden of disease attributable to mental and substance use disorders: findings from the Global Burden of Disease Study 2010. *Lancet*, 382: 1575-86.
WHO (2006). *Knowledge Network on Urban Settings, WHO Commission on Social Determinants of Health.* WHO Centre for Health Development, Kobe, Japan.
WHO (2007) *Our cities, our health, our future: Acting on social determinants for health equity in urban settings.* KNUS Report, WHO CSDH. WHO Centre for Health Development, Kobe, Japan, 2007.
http://www.who.int/social_determinants/resources/knus_report_16jul07.pdf)