Health Promoting School as effective strategy to promote positive development of children

Global drive for improving health in education setting

In 2011, United Nation adopted 'The Declaration of the High-level Meeting of the General Assembly on the Prevention and Control of Non-communicable Diseases (NCD)' and the key to this agenda is 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."* (UN, 2011). The priority health-risk factors/behaviors such as high cholesterol, high blood pressure, obesity, smoking and alcohol contributing to the leading causes of mortality and morbidity later on in life are often established during youth period and extend to adulthood and there is overwhelming evidence that prevention is possible when sustained actions are directed both at individuals and families; as well as the boarder social, economic and cultural determinants of NCD (Mant, 2004). Unfortunately we are still observing high prevalence of those youth risk behaviors in many countries both east and west (Eaton et al, 2010; Rowe, 2005; Lee and Keung, 2012). We can expect similar global trend even in developing countries as the prevalence of overweight and obesity has increased more markedly in developing countries (Swinburn et al, 2011). The prevalence of overweight has increased 28 times between 1985 and 2000 in mainland China (Wu, 2006), and the rise of overweight and obesity was followed by the rising prevalence of hypertension from just 10% in 1980 to over 50% in 2008 paralleling China's rapid economic growth (China MoH, 2009; Whelton et al, 2004). The 45th session of the UN Commission on Population and Development, held in New York from April 23 to 26, has chosen Adolescents and Youth as its central theme (Editorial, 2012).

The United Sustainable Development Goals 2030 (SDG 2030) has stipulated two important goals for healthy and positive childhood development: "*Ensure healthy lives and promote well-being for all at all ages*" (SDG Goal 3) and "*Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all*" (SDG Goal 4). With fasting growing economy and rapid pace of urbanization, we are exposing our young generation to live in a risk society, with increasing ecological and socioeconomic risks (e.g., increasing health inequalities) and increasing individualization. The factors account for substantial morbidity and mortality for children in developed countries are highly interrelated with socioeconomic, behavioral,

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and biological characteristics (Sidebotham et al, 2016). The WHO Commission on Social Determinants of Health (CSDH) examined the inequitable access to health and education as well as the factors constituting the social determinants of health (CSDH, 2008). CSDH emphasized the importance of early life investment in health by risk minimization of obesity, malnutrition, mental health and non-communicable diseases (NCD) as well as enhancement of physical and cognitive developments (Marmot et al, 2008). A strong link between education and health is very much needed to tackle the social determinants of children's health and effective intervention needs to consider the diversity of the condition of places where children spent most of their time, i.e., school (Lee and Cheung, 2017).

There have been many published evaluations of school health initiatives in the last twenty years suggesting that the way the school is lead and managed, the experiences students have to participate and take responsibility for shaping policies, practices and procedures, how teachers relate to and treat students and how the school engages with its local community (including parents) in partnership work, actually builds many health protective factors and reduces risk taking behaviour (Steward-Brown et al, 2009). Many of these gains have occurred without a specific health 'intervention', and a whole school approach with a caring school social environment being the most effective way in achieving both health and educational outcomes (Blum et al, 2002). The Social Development Model hypothesizes that children learn from their social environment the patterns of behaviors, social or anti-social, and when socializing processes are consistent with development of social bond of attachment, it inhibits behaviors inconsistent with the beliefs held (Catalano et al, 2004).

Evolution of robust system of monitoring and evaluation of Health Promoting School

During the eighties, the World Health Organization has initiated the concept Health Promoting School (HPS) movement moving beyond individual behavioural change and to consider organizational structure changes for health improvement (WHO, 1996). This includes improvement in school physical and social environment, active promotion of the self-esteem of all pupils by demonstrating that everyone can make a contribution to the life of the school, development of the education potential of the school health services beyond routine screening towards active support for the curriculum, and development of good links between the school, home and the community. In Hong Kong, the academic Centre for Health Education and Health Promotion of the Chinese University of Hong Kong (CHEP) has developed a comprehensive framework of HPS with indicators for monitoring and evaluation (Lee et al, 2005). The indicators were developed with intention to guide practice and actions for improvement based on

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evidence and theory of HPS and structured on the six key areas according to WHO guidelines (**healthy school policies, personal health skills/action competencies for healthy living, school physical environment, school social environment, community link and school health services/school health care and promotion services**). The approach can be regarded as an ecological model for health improvement as health is addressed by a complex interaction of environmental, organisational, and personal factors. It has shown to ensure sustained positive changes and encouraging the schools to address the intertwined social, educational, psychological, and health needs of school children (Lee et al, 2006; Lee et al, 2008; Lee et al, 2014; Lee et al, 2016).

Evidence has been gathered extensively about what schools actually do in health promotion using the HPS framework (Lee et al, 2007; Marshall et al, 2000). Building on the evidence, award schemes on HPS were developed in England and Hong Kong showing positive award-related changes in terms of children's health behaviors, and that the awarded schools have a more health promoting culture and organization than those non-health promoting schools (Lee et al, 2006; Moon et al, 1999). HPS would exert synergistic effect among the stakeholders (home, school and community) to improve health and well-being of students. The holistic approach of HPS cutting across the wide domains of schooling would also become a strong mediator to improve learning and social outcomes of the students.

The WHO framework of HPS is only an outline. Langford et al (2014) conducted Cochrane Review of WHO Health Promoting School framework for improving the health and well-being of students and their academic achievement. The results of the review have certain health outcomes but the review was based only on 67 included cluster-randomised controlled to provide evidence for the effectiveness of some interventions based on the HPS framework for improving trials taken place at the level of school, district or other geographical area. The Randomised Controlled Trial (RCT) design does not necessary lend itself to outcomes involving organizational or structural change as the statistical assumptions underpinning RCT are not valid reflecting organisational or structural change so limited conclusion can be drawn. Inchley et al (2006) challenged the view that HPS initiatives would lead to immediate change at the individual level and argued that potential markers of success associated with process should be identified as a means of supporting schools and teachers and indicators of HPS should highlight the ways in which schools are able to adopt HPS principles successfully and the conditions to be in place for the HPS concept to flourish. A broader perspective on evidence is needed for health promotion particularly in dealing with complexity of school system (Rowling and Jeffreys, 2006). Paper by Joyce et al (2017) asserts the importance of monitoring data, such as audits adopted by CHEP for

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Hong Kong Healthy School Award to motivate change.

One should build on the experience of monitoring and evaluation of HPS movement in Hong Kong matching the science emerged on development of children and adolescent with evidence of HPS effectiveness to consolidate a framework for positive and healthy living for children leading to adolescence and adulthood. In this manual, it will discuss the rationale of the six key areas, their values and impacts on health and education. There are specific questions reflecting the core indicators of success for each key area so individual school would evaluate their performance. It will provide guidance for schools to get a good start in developing Health Promoting School for better health and education of children and adolescents.

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以「健康促進學校」為促進兒童正向發展的有效策略

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全球推動：於教育環境改善健康

2011 年，聯合國正式通過《大會高層會議關於預防和控制非傳染性疾病問題共同宣言》，以採取行動降低風險因素和創設健康促進環境為未來的重點工作，透過「...實施跨部門、具有成本效益、全人口的干預措施，以減少常見的非傳染性疾病風險因素的影響（即煙草使用、不健康飲食、缺乏體能活動和有害的酒精使用），通過相關的國際協議和策略的實施，以及各項教育、立法、監管及財政措施。」（UN, 2011）。健康風險因素/行為（如高膽固醇、高血壓、肥胖、吸煙和飲酒等）是增加日後死亡率和發病率的主要原因，而這些因素/行為多自青少年時期建立起來，再延續至成年。大量實證顯示，只要從個人和家庭開始採取持續的行動，同時從較廣泛的決定因素（如社會、經濟和文化）着手應對非傳染性疾病，問題其實是可以預防的（Mant, 2004）。只可惜我們觀察到這些青少年風險行為在世界各地仍十分普遍（Eaton et al, 2010；Rowe, 2005；Lee and Keung, 2012）。有鑒於即使在發展中國家，超重和肥胖盛行率仍顯著上升，我們因此可預期與已發展國家類似的健康問題在發展中國家也會出現，形成一種全球趨勢（Swinburn et al, 2011）。在中國大陸，超重和肥胖盛行率從 1985 至 2000 年間飆升了 28 倍（Wu, 2006）; 伴隨超重和肥胖率上升而來的，是高血壓盛行率從 1980 年只有 10%上升至 2008 年超過 50%，情況與國內經濟迅速增長並行（Whelton et al, 2004；China MoH, 2009）。在紐約召開的第 45 屆聯合國人口與發展委員會會議（4 月 23 至 26 日）亦選擇以「青少年與青年」（Adolescents and Youth）為主要議題（Editorial, 2012）。

《聯合國 2030 可持續發展目標》（Sustainable Development Goal 2030 [SDG 2030]）就兒童健康及正向發展規定兩項重要目標，包括第三項可持續發展目標「確保健康的生活方式，促進各年齡段人群的福祉」（SDG 3）和第四項可持續發展目標「確保包容和公平及公義的優質教育，讓全民終身享有學習機會」（SDG 4）。隨着經濟迅速增長和都市化的急速步伐，我們的年青一代正活在一個充滿高風險的社會中，面對日益加增的生態與社會經濟風險（如日益加增的健康不平等問題），以及由不斷加增的個體化（individualization）所產生的影響。在已發展國家，導致兒童發病和死亡的主要因素，與他們的社會經濟、行為和人物的特徵有非常密切的互相關係（Sidebotham et al, 2016）。世界衞生組織健康問題社會決定因素委員會（WHO Commission on Social Determinants of Health [CSDH]）曾評估社會上健康與教育不平等待遇的狀況，探討構成健康問題之社會決定因素的成因（CSDH, 2008）。委員會強調投放資源於保障早期健康（early life investment）的重要性，並說明如何透過降低肥胖、營養不良、精神及非傳染性疾病的風險，以及提升人們的體格

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與認知發展來達致這目標（Marmot et al, 2008）。要正視有關兒童健康問題的各種社會決定因素，必須建立「教育」與「健康」之間的緊密聯繫，而有效的干預措施必須顧及兒童身處時間最長的地方，就是校園各處狀況的多樣性（Lee and Cheung, 2017）。

在過去 20 年，已有許多關於各類學校健康舉措的評估結果面世，指出學校的領導和管理方法、學生參與並為建立政策而負起責任的經驗、各種做法和程序、教師如何與學生和睦相處和對待他們、學校又如何與身處的社群（包括家長）通力合作，其實已能夠為學生建立不少健康保護因子，減少風險行為的發生（Steward-Brown et al, 2009）。很多時，這些裨益的出現並非透過某種特定的健康干預措施，反而最有效達致健康與教育成效的方法是藉由全校策略（whole school approach），在校園營造一個彼此關顧的社交環境（Blum et al, 2002）。社會發展模式（Social Development Model）假設兒童從他們的社交環境學習各種行為模式（社會性和反社會性的），而當人與人交往得以逐步建立成一份深厚的情誼，就會約束與彼此信念不符的行為（Catalano et al, 2004）。

健全的健康促進學校監察與評估系統之演進

在 80 年代，世界衞生組織首先提出健康促進學校（Health Promoting School [HPS]）概念，整個概念將改善健康由個人行為的改變，推進至顧及到組織架構層面上的轉變（WHO, 1996）。這概念包括改善學校的物質環境和校風；讓所有學生能體會他們每個人都可為校園生活作出貢獻，務求積極提升學生的自信；發揮學校健康服務所具備的教育潛能，從日常的篩檢工作，進展至為積極支持學校相關的課程發展；建立學校、家庭與社區之間的緊密聯繫。在本港，香港中文大學健康教育及促進健康中心（CHEHP）的學術團隊發展了一套全面的健康促進學校框架，附帶一系列用於監察和評估的表現指標（Lee et al, 2005），旨在以科學實證和健康促進學校理論，並建基世衞指引**（包括健康學校政策、健康生活技能/健康生活技能與實踐、學校環境、校風與人際關係、家校與社區聯繫，以及學校健康服務/學校保健和健康促進服務）**，建議改進的做法和行動。這種做法可被視為一種改善健康的生態代模，通過各種環境、組織和個人因素之間複雜的相互作用來剖析並處理健康問題，也有文獻展示這種做法能夠為學校帶來持續而正面的轉變，並能鼓勵學校正視各種有關學童社交、教育、心理和健康方面的需求（Lee et al, 2006；Lee et al, 2008；Lee et al, 2014；Lee et al, 2016）。

現時已有大量實證闡釋學校在採用 HPS 框架後，明確說明學校在健康促進方面實際做了些甚麼（Lee et al, 2007; Marshall et al, 2000），而建基這些實證，健康促進學校獎勵計劃在英格蘭和香港得以發展起來，而且能夠對兒童的健康行為產生正面轉變。相比那些非得獎學校，在得獎學校之中都有一種比較重視健康促進的校園文化和組織架構（Lee et al, 2006; Moon et al, 1999），而一所健促進學校亦會在各持分者（家庭、學校和社區）之間發揮協同效應，為改善學生的身心健康共同努力。HPS 這種整體做法橫跨學校教育的各個範疇，有望可以成為一種有效的媒介，改善學生的學習成效和群性發展。

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然而，世衞倡議的健康促進學校框架僅提供了一個發展大綱框架。Langford 等人（2014）曾就世衞健康促進學校框架對改善學生身心健康及其學業成績進行一項考科藍文獻回顧（Cochrane Review），結果認為此框架對健康只能帶來某些成果。只不過，由於該項回顧只根據 67 篇文獻，其中包括一些簇聚隨機對照（Clustered Randomized Controlled）類型的研究，旨在為有些建基於 HPS 框架之干預措施的成效提供實證，期望令從不同學校層面、地區層面或不同地域層面進行的測試得以完善。不過，由於隨機對照試驗（Randomized Controlled Trial）背後的統計學假設並不能有效反映組織或架構上的轉變，因此，並不一定適用於說明涉及組織或架構轉變的成果，使所得的結論仍有局限。Inchley 等人（2006）質疑有關「HPS 舉措只能在個人層面帶來直接轉變」的觀點，表明應該要將該舉措對學校和教師的支持也視為實施過程中一種潛在的成功標記，而 HPS 的指標應強調是哪些方法使學校能夠成功採用 HPS 原則，和需要具備哪些條件才能讓 HPS 概念得以蓬勃發展。處理健康促進的實證需要一種更廣闊的視野，尤其是關於學校複雜體制導致的各種難題（Rowling & Jeffreys, 2006）。Joyce 等人（2017）撰文確認數據監察對激發轉變的重要性，就如 CHEHP 於香港健康學校獎勵計劃所採用的評審機制。

我們應該建基香港推動健康促進學校監察和評估的經驗，將關於兒童與青少年發展的最新科研與有關 HPS 成效的實證連結起來，進一步為兒童邁向青少年期及成年期整合出一個正向健康生活框架。本手冊將探討六個發展領域的基本原 理，以及每個領域對健康和教育所產生的價值和影響，還有關於每個發展領域的核心成功指標的反思問題，可供讀者就個別學校的表現進行評估。本手冊為每所有志朝着健康促進學校開始發展的學校提供指引，為兒童及青少年健康和更好的教育而努力。

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