Promotion of Physical Activity for Thai People at All Age Groups

1. Definition
Physical Activity refers to any body movement or exertion, including activities undertaken while working, traveling, and engaging in recreational pursuits and other physical exercises. Thus, physical activity means more than exercising and playing sports.

Sedentary behavior refers to little body movement, e.g. sitting, lying, or staying inactively for a long time in one posture; however, it does not include sleeping.

2. Situation and action concerned
Insufficient physical activity of the global population has been on the rise. This is especially true with teenagers and adults, a situation in which there are more females than males. Such an increase is prevalent in countries whose population has a high average income. In Thailand, a survey on physical activity, conducted by Institute for Population and Social Research, Mahidol University together with Thai Health Promotion Foundation (ThaiHealth), finds that the years 2012-2015 saw Thai people having sufficient activity at 66.3%, 68.1%, 68.3% and 71.7% respectively. A look at the changes that occurred in 2014-2015 in various age groups reveals that the group with the highest increase in physical activity is people of working age, an increased from 70.4% to 75.8%. The groups that saw a slight increase of 0.2-0.8% are teenagers and elderly people, increasing from 66.4% and 67.7% to 66.6% and 68.56% respectively. Children, on the other hand, saw a decrease of physical activity from 67.6% to only 64.8%.

Physical activity is classified by intensity into three levels: (1) light-intensity activities, e.g. standing, walking a short distance, doing house chores, (2) moderate-intensity activities in which the person doing the activity can talk in complete sentence with a heart rate of 120-150 beats per minute, e.g. walking briskly and cycling, (3) vigorous-intensity activities in which the person cannot talk in complete sentence with a heart rate of more than 150 beats per minute, e.g. digging and planting in farming and carrying a very heavy object. Sufficient physical activity, when started young and continued throughout life to old age, will help to promote wellbeing at every stage of life.

Sufficient activity in children and teenagers, aged between 5 and 17 years, should have moderate- to vigorous-intensity physical activities at least 60 minutes a day. These activities that strengthen the muscles and bones should be done at least three times a week. Adults between 18 and 64 years old and the elderly 65 years old and above should exercise a moderate to vigorous level at least 150 minutes per week, at least three times a week. The activities should aim to strengthen the muscles. For older people with limited mobility, additional activities should be included to strengthen balance and prevent fall.

Physical activity in Thai people is declining, reflecting increased sedentary behavior. A survey in 2012 shows that each day Thai people exhibited 13.25 hours of sedentary behavior. The figures for 2014 and 2015 showed the sedentary behavior...
increasing to 13.42 and 13.54 hours respectively. The top four sedentary behaviors lasting more than one hour per session are sitting/reclining watching television (50%), sitting talking or at meeting (28.4%), sitting working or studying (27.0%), and sitting playing video games, mobile telephones, or other electronic gadgets (20.1%). Broken down into groups, the finding reveals that, compared to other age groups, more children and teenagers spend on average more than one hour pay day sitting in front of the television, using computer, staying in computer games parlors, and using various types of portable electronic gadgets. The trend is more likely to continue or increase.

Insufficient activity and sedentary behavior brings with it health, economic and social impacts. The World Health Organization estimated that each year sees nearly 1.9 million deaths in the global population due to insufficient physical activity. Such inactivity has a close relation to an increased incidence of obesity and non-communicable diseases (NCDs), including diabetes, hypertension, cardiovascular disease, chronic kidney disease, and cancer. The morbidity for colorectal cancer is at 25%, for breast cancer at 21%, for cardiovascular disease at 6%, for heart-related diseases at 30%, and for diabetes at 27%. The risk of mortality is as high as at 20-30%, while sedentary behavior is related to the mortality rate of cardiovascular disease and diabetes in a significant way.

Studies on economic impacts on the quality of life from obesity find that capital and economic losses from the disorder in Thailand amounts to 12,142 million baht. This amount is calculated on the basis of care and treatment costs and productivity loss. The former amounts to 5,584 million baht. Three top disorders from obesity with the highest costs are diabetes, cardiovascular disease and colorectal cancer, amounting to 3,387 million, 1,071 million, and 337 million baht respectively. The productivity loss amounts to 6,558 million baht, broken down into loss from work absenteeism due to sickness being 694 million baht and premature death being 5,864 million baht. Diabetes, stroke, and cardiovascular disease are the leading three disorders causing productivity loss and premature death, amounting in financial terms to 2,550 million baht, 1,800 million baht and 1,035 million baht, respectively. Productivity loss due to absence from work to receive diabetes treatment at the hospital is as high as about 448.8 million baht or about 12 million days. Diabetes comes second with a loss of 102.2 million baht or about 276,000 days, followed by cardiovascular disease with a loss of 62.8 million baht or about 170,000 days.

The World Health Organization emphasizes that an active lifestyle is vital to good physical and mental health. Sufficient physical activity and little sedentary behavior is important to health promotion and disease prevention, especially to good development at all stages of life. Sufficient and appropriate physical activity, from childhood to old age, will help strengthen cardiovascular health, muscles, bone functions, body movement and coordination, and balance. It also reduces the risk of fall, fracture of hip bones, and spines, contributing to the body balance when exerting energy and weight control, reducing risks of such disorders as diabetes, hypertension, cardiovascular disease, various kinds of cancer, especially breast and colorectal cancers, and helping to reduce the rate of premature death.

In addition, physical activity contributes to brain development, better analytical thinking, and planning, as well as children's ability to secure better scholastic achievements, better concentration, emotional development, greater self-confidence, and other skills in fostering interpersonal relationship with family and community members through participating in various activities. Examples of physical activity are
walking and cycling, activities that help conserve the environment and nature and reduce air pollution at the same time.

3. Factors related to physical activity

Promotion of physical activity for Thai people is related to three important factors: individual, environment and structural:

Individual factors included knowledge, understanding, awareness and behavior of physical activity by each person, including awareness of personal health. The knowledge and capability of professionals in their own fields have an impact on personal physical activity. For instance, people who can help support, directly and indirectly, the promotion of physical activity in the general public are health and medical workers, town and transport planners, architects and landscape architects, sports and recreational officials, educators and policy makers, friends, family, role models and leaders of physical activity.

Environmental factors refer to the physical structure derived from architectural design and town planning, including transportation systems, commuting system, and public space, e.g. appropriate, sufficient and safe public parks that enable the general public to do physical activity. Environmental factors also include the physical structures for schools, buildings, and workplaces designed to facilitate physical activity. Equally applicable is making available public and private fields and sports grounds, as well as lighting facilities. All this will enable students to play and learn in a creative manner, while workers will have more space for physical activity. Sedentary behavior, whether at school or workplace, will be reduced. Besides, a policy related to promotion of physical activity is another important factor that will encourage the public to engage in more physical activity. This is particularly pertinent if it can help motivate the participation of every sector, including the people sector, public and private sectors, local government organizations and professional bodies, in sharing information, ideas, planning, decision making, responsibility, benefits, monitoring, evaluation and inspection (2nd Charter on the National Health System, B.Ed. 2559 (2016). Some examples of a policy to create incentives and promote more physical activity are tax measures and reduction of health insurance premiums.

Structural factors refer to all systems and mechanisms deriving from the participation of every sector, including the public sector, local sector, private sector, people sector, and academic sector, in promoting and advocating physical activity. Some examples are health service establishment, health volunteer network, participatory health region for the public, district committee on the development of the quality of life, and local health fund created through the cooperation of local government organizations and the National Health Security Office, academic and research institutes, as well as other organizations, federations, clubs, and groups, e.g. sports association, Thai Jogging for Health Club, and Bicycle for Health Club of Thailand.

In addition, if we have in place a system to manage information, knowledge and public communication, it will greatly help to generate correct information, communication and advocacy for more physical activity of the Thai general public.

4. Ways to implement promotion of physical activity

Important ways to promote physical activity for Thai people at all age groups are:
1) provide knowledge, understanding, knowledge management, and communication innovation 2) develop the capability of individual, organization and network, 3) create
model healthy area, 4) advocate the public policy at national and local levels, and 5) create mechanisms for cooperation between organizations, agencies, and stakeholder networks and develop an area-based approach to development of local mechanisms as follows:

**4.1 Provide knowledge, understanding, knowledge management, and communication innovation:** The aims are to stimulate knowledge management, innovation, creation of tools, and media production, leading to greater awareness and understanding, and to provide practical guidelines for increased physical activity, i.e. through generation of knowledge conducive to sufficient physical activity, forms of physical activity in everyday life, while commuting, working, or doing recreational activities. It also embraces ways and means to promote learning through physical activities for children and youth, working people and the elderly. It supports education institutes and research agencies in their research and development on physical activity for Thai people. For example, there are projects to promote the use of stairs rather than elevators through symbols. Floors are paved with rubber tiles and carpets for safety purposes. Walls are painted in bright colors and decorated with artistic work depicting food, nutrition, landscape, and people in different poses of physical activity. Musical sounds are heard when a person walks past the picture. Infrared signals are used to collect information on stair use.

**4.2 Develop the capability of individual, organization and network:** The aims are to inspire the thirst for knowledge, to build capability and skills on action to increase physical activity in an effective and efficient manner, and to promote the creation of the environment conducive to physical activity. Some such processes to develop the capacity mentioned are: development of personal capacity, creation of model leaders at individual, organizational and network levels, while focusing on learning by doing, and promotion and development of physical activity models covering the issues of wellbeing (physical, mental, social and spiritual) and value development for self, society, and community. The main target groups are health personnel, education personnel, local community, volunteer network, sports business operators, large public and private organizations, and such physical structure designers as architects and town planners. The following are some of the examples. The Municipality of Waeng-Noi, Khon Kaen Province, promotes appropriate physical activity for different groups of workers, including farmers, civil servants, or merchants. Phuket City Municipality sets up a Phuket walking street and organizes cycling events following the route of the ancient time to the modern time, including walking tours in the city of Phuket lined with old shophouses of Sino-Portuguese architectural style.

**4.3 Create model healthy areas** through promoting the environment conducive to physical activity: The idea is to create community models covering such areas as housing, education institutes, workplaces, public and private business establishments, health service establishments, religious places and public space. The presence of a good model area can then lead to further policies that will make it more likely for everyone, every sector, and every level to participate in the promotion of physical activity. Early childhood development centers are encouraged to provide learning and creative play appropriate to child development through physical activity. Schools and universities are equipped with curriculums, teaching methodologies, and subjects together with quality physical activities. Physical activity is organized during the break/free time at work. The design of physical structure and town planning all lend support to the environment conducive to physical activity in public space and on travel.
route, as well as in school, organization and state enterprise. The following are some of the examples of model health areas. PSU Wittayanusorn School in Hat Yai District, Songkhla Province, puts an emphasis on interior design without elevators, but providing larger stairways to facilitate the walk of its students and personnel. The Municipality of Ang Thong puts in place a health park and water park built in honor of the late king. These places are designed for community physical activity. It also organizes an activity “Ang Thong Opens the Town for Cycling, Cycling Happy in Ang Thong”. The Municipality of Waeng-Noi, Khon Kaen Province, turns the Public Park of Huai Hat into a place suitable for physical activity. It has a community plan in which there are roads, footpaths, bike lanes, bicycle parking in community, a municipal fresh market to which safe walkways are connected, and government offices are open for public use for physical activity. Phuket City Municipality supports the use of the area at Youth Center of Sapan Hin in which workers from hotel and department store or other shift workers can turn on the light themselves and they can use the place for physical activity after work at night.

4.4 Advocate the public policy at national and local levels: Efforts are made to advocate policies designed to promote physical activity, e.g. education policy, policy toward health service establishments, policy toward business establishments concerning physical activity at workplace, use of tax measures and reduction of health insurance premiums as incentives toward holding physical activity. Also, there is a move to incorporate physical action plans into such existing systems and mechanisms of the public sector as local/area health funds and other funds in the locality. An example of such a move is ThaiHealth’s support for local government organizations to take lead action along the three-pronged strategy of “park, route, and field”.

4.5 Create mechanisms for cooperation between organizations, agencies, and stakeholder networks and develop an area-based approach to development of local mechanisms: This is done by integrating participation of agencies that have something to do with the implementation of physical activity, such as the public sector (every ministry and department), private sector, state enterprise, religious network, and the people sector. The approach also involves the development of the network of physical activity clubs, development of information/ICT systems, knowledge management, development of the public communication system to promote appropriate physical activity, development of the support system through the National Sports Development Fund, and the strengthening of the local government organization’s role in promoting physical activity in the general public. Efforts will be made to develop the surveillance, monitoring and evaluation of physical activity, especially in the area where little information is available, e.g. economic analysis, action research on behaviors of the population, evaluation of the policy and the monitoring system, including developing research organizations and supporting research on physical activity. Some examples on the cooperation mechanisms by the Department of Local Administration are the Municipality of Chiangrai, Municipality of Ang Thong, Municipality of Waeng-Noi Sub-district in Khon Kaen Province, and Phuket City Municipality.

5. Past action and results

Over the years, Thailand has had policies and strategic plans that promote physical activity based on the policy of the World Health Organization, of which the country is a member, National Economic and Social Development Plan, Strategic Plan on the
Development of Health Promotion and Environmental Health, (draft) National Strategic Plan on Promotion of Physical Activity:

5.1 The policy of World Health Organization in light of Sustainable Development Goals (SDGs) (2030) has something to say about physical activity. The promotion of physical activity will be based on activities of everyday life and environmental development, turning the place into healthy or active city. The idea is to raise the level of physical activity, develop the physical space, and put in place a transport system conducive to body movements, e.g. walking, cycling and connectivity of the public transport system. All this will bring about the quality of life and cost savings for urban health services, leading to greater availability of public space and green areas, quality housing, less social isolationism, stronger community, and expansion of community networks on sustainable development goals.

5.2 Global Action Plan for the Promotion of Physical Activity (GAPPA) (2018-2030): The objective is to create a healthy society, healthy environment, healthy life and other healthy systems.

5.3 12th National Economic and Social Development Plan (2017-2021): There is a strategy on strengthening and development of human capital designed to reduce health risks and encourage every sector to consider health impacts of their work.

5.4 Strategic Plan on the Development of Health Promotion and Environmental Health in the 12th National Economic and Social Development Plan (2017-2021): The plan covers health promotion for four different age groups, the strengthening of the sustainable environmental health system, governance of health promotion and environmental health, and work reform toward organizations with high capacity and good governance.

5.5 Bangkok Declaration on Physical Activity for Global Health and Sustainable Development: Its essence includes a call to increase investment in the implementation of policy to increase physical activity as a contribution to reducing the global burden of NCDs, to establish multi-sector engagement, to develop workforce capabilities in every discipline concerned, to increase technical assistance and share experience, to strengthen monitoring and surveillance, and to support and promote research and policy evaluation.

5.6 Physical Activity Promotion Plan of Thai Health Development Fund: It sets a number of work strategies, e.g. promotion of a life-course approach to physical activity, advocacy for model health spaces conducive to physical activity in household, school, workplace/organization, and public/community space, policy-related expansion in cooperation with other lead strategic partners, and upgrading of physical activity to the level of national strategy serving as the common target in every health-related policy.

5.7 (draft) 1st National Strategic Plan on Promotion of Physical Activity (2017-2026) by the Department of Health, Ministry of Public Health: This national strategy includes promotion of physical activity for people at every age group, promotion of environmental conditions to be conducive to physical activity, and availability of a support system for physical activity.

The work on physical activity in Thailand can be divided into various levels – law, strategy and policy, agency, and project:

1) At the level of law, strategy and policy: There are, for example, the Constitution of the Kingdom of Thailand, B.E. 2560 (2017), 20-year National Strategy (2017-2036), 12th National Economic and Social Development Plan, 20-year National Strategy on Public Health, Health Promotion Fund Act, B.E. 2544 (2001), Strategy on...

2) At agency level: Agencies taking part in promotion of physical activity of Thai people are: Thai Health Promotion Foundation (ThaiHealth), Ministry of Public Health, Ministry of Tourism and Sports, physical education institutes, Ministry of Interior, Ministry of Education, Ministry of Labor, Ministry of Transport, Ministry of Social Development and Human Security, Mahidol University’s Physical Activity Research Center, Department of National Parks, Wildlife, and Plant Conservation, and religious places, Department of Religious Affairs.

3) At project level: Projects undertaken by public agencies are: Diet & Physical Activity Clinics designed to bring about behavioral change in NCD patients in State hospitals. The project was started by ThaiHealth networks of “Khon Thai Rai Phung” (Thai People without Big Bellies) and through the cooperation of various agencies participating in the International Congress on Physical Activity and Public Health, leading to the “Bangkok Declaration on Physical Activity for Global Health and Sustainable Development”.

6. System and mechanisms favoring promotion of physical activity

Thailand has a number of systems and mechanisms that favor the promotion of physical activity. Responsible agencies include the public sector, private sector, academia, and civil society. The lead public agencies are Thai Health Promotion Foundation (ThaiHealth), Department of Health, Ministry of Public Health, Ministry of Education, Ministry of Tourism and Sports, National Health Security Office, Department of Local Administration, Ministry of Interior, Ministry of Transport, and some other government agencies concerned. The academic sector includes Physical Activity Research Center (PARC), Health Systems Research Institute (HSRI), Thailand Research Fund (TRF), Prince of Sohgkhla University’s Health Systems Management Institute (HSMI PSU), and other universities. The private sector includes Provincial Electricity Authority, SCG Co. Ltd., Thai Airways International Public Company, and several other organizations with physical activity programs for their workers. Associations and club networks are Professional Network of Architects and Town Planners, Thailand Walking and Cycling Institute Foundation, Thai Cycling Association, Thai Cycling for Health Association, and Federation of Jogging Clubs for Thai Health. There are also a large number of cycling clubs, running clubs and sports club across the country.

Despite action taken to promote physical activity for quite some time, Thailand still sees little behavioral change in its people especially when it comes to sedentary lifestyle. An analysis of the situation reveals a number of factors accounting for such limiting behaviors: a limited extent of knowledge in the promotion efforts at individual and environmental levels including the existing system and mechanisms. The limiting factors also include the knowledge and understanding of the definition of physical activity on the part of health personnel and the general public. Other concerns are related to the policy, process, and methods of promoting activities, as well as health determinants, monitoring, evaluation and surveillance systems. In addition, there are
problems of management at every level. For instance, the community cannot use the
bike lanes although the lane lines have been drawn or painted.

Yet, there are a number of enabling factors in place, including the committee for
participatory health regions for the public and district/regional committees for the
development of the quality of life. These committees serve as mechanisms to integrate
the issue of physical activity into the district health plan. Furthermore, the Ministry of
Interior has a “One-Plan” policy that will make it possible to include the issue into the
plan of its agencies at every level.

The issue presented to this National Health Assembly is intended to drive forward
the promotion of physical activity for Thai people at all age groups, involving all sectors
concerned. The objective is to synergize the force of the public sector, private sector,
local sector, civil society, community and academic sector in the implementation of such
promotion. This will eventually lead to the participatory public policy process based on
wisdoms at every level, national and local combined. It will also bring about the
platform for learning exchange and space for further health advocacy.

7. Issue for consideration of the National Health Assembly

Requesting the National Health Assembly to consider Document HA10/Draft
Resolution on Promotion of Physical Activity for Thai People at All Age Groups.

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