

Prevalence of Childhood Obesity in Thailand

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Thailand is going forward to become a developed country in the near future. Obesity has been a problem among Thais especially in children. During the last 2 decades people have changed their lifestyle from traditional preparation of their own meals and tend to become modernized by buying foods for their families. Children spend most of their time watching television and playing computer games, including spending their time in traffic congestion. The World Health Organization has documented in the world health report 2004 that over 155 million children around the world are overweight or obese. The prevalence is increasing in both developed and developing countries as well as the risk of diet related diseases such as type 2 diabetes and cardiovascular disease. In the USA approximately 55% of adults are overweight and one - fourth of them are obese. The data from the review of overweight and obesity in pre-school children from developing countries revealed the increasing rate in every part of the world was Africa 1.5 - 16.5%, Latin America 5.1 - 23.8%, and Asia 0.8 - 7.4%.

Some countries in Asia reported an increase in obesity rate among children. They are as follows China 11.3%, Malaysia 8.4% Japan 21.7% in boys and 17.4% girls, and Singapore 19.4% in boys and 14.6% in girls. There are risks of serious consequences when children carry too much weight. Their hearts need to work harder. They cannot get a good sleep. Excess body fat puts strain on the musculoskeletal system. There are also psychological consequences since these children frequently experience teasing from their peers.

Situation in Thailand

Thailand has established the National growth monitoring program (GMP) in 1982. The objective has been to closely watch over the growth of the under five children nationwide. Every child from every village of the country has been monitored for growth by measuring weight and height (length) every 3 months. The weighing session has been set in the village and the measuring activities have been done by trained village health volunteers and mothers under supervision of health officers from a nearby health center. In 1982 the

prevalence of undernutrition was more than 50% among preschool children. After 10 years of regular quarterly monitoring in National GMP, the number of undernourished children has decreased by half. The most recent data from the Multiple Indicator Cluster Survey (MICS) reported in April 2007 by the National Statistical Office and UNICEF revealed 9.3% underweight and 4.1% wasting children. MICS also reported 6.9% overweight and obesity in children.

There have been several survey and research studies working on overweight and obese children in Thailand. The present Thai reference growth curve has been developed by the Department of Health, Ministry of Public Health in 1999 under the supervision from a Technical Committee led by Professor Krisid Tontisirin.

The prevalence rate of overweight and obesity in preschool children and in school children from various studies has been shown in Table 1 and 2 below respectively.

The rate of overweight and obesity is continuously increasing. The result of the 5th National Nutrition Survey in 2003 - 2004 has shown the evidence of high blood pressure (>140/90 mmHg) and dyslipidemia among the young generation from 15 - 19 years old which is closely related to overweight and obesity.

This survey has also revealed the changing trend of consumption behavior of Thai people. As they become more urbanized, they consume less fruits and vegetables, but more fast food with a high content of fat and sugar.

In 2001 the Department of Health, Ministry of Public Health initiated the Obesity Prevention Program in one school from each of the 75 Provinces as a pilot project. Within a few years the project was expanded to 575 schools. Now the activities of this project have been integrated as part of the Health Promoting School.

TABLE 1. Prevalence of overweight and obesity in preschool children.

Researchers	Year of studies	Area of studies	No. of sample size	Prevalence%
National Public Health Fund	1996	33 Provinces	3,298	7.3
5 th National Nutrition Survey	2003	10 Provinces	2,486	4
Mo - Suwan L.	2004	17 Province	2,327	7.9
MICS (NSO and UNICEF)	2005-2006	75 Provinces include Bangkok	1,449 villages	6.9

TABLE 2. Prevalence of overweight and obesity among school children.

Researchers	Year of studies	Area of studies	No. of sample size	Prevalence%
Preunglumpoo S.	2002	Chiengmai	2,537	11.9
Langendijk G.	2003	Khon Khaen	864	10.8
Mo - Suwan L.	2004	17 Provinces	3,175	6.7
			(6-12 yrs)	
			3,158	8.6
			(13-18 yrs)	
Nutrition Division	2000	12 Provinces	9,252	12.9
Department of Health				
5 th National Nutrition Survey	2003	10 Provinces	2,250	5.4
			(6-14 yrs)	
			256	12.9
			(15-18 yrs)	
	2004	Bangkok	884	15
			(6 - 14 yrs)	

The activities conducted in the school include:

- Advocate all sectors involved such as school principal, school teachers, parents, students and food shopkeepers who are selling food in schools. Train them to build up a realization and recognition of the problem and also their capacity to help hand in hand to alleviate the problem.
- Set up the plan of action under the co-operation of all sectors. The activities comprise of:
 - Healthy lunch menu (low fat and low sugar).
 - Encourage group physical exercise 1-2 times/day.
 - Ban on unhealthy food sold in school areas.
 - Summer Camp for weight reduction integrated with some other subjects etcetera.

Since 2006 the Department of Health has joined with the Alliance of Prevention and Control of Obesity lead by the Thai Royal College of Internal Medicine under funding support from the Health Promotion Fund. The alliance aims to increase awareness of the general public of the serious consequences of obesity. The alliance also set up the indicator which is being used as a simple tool for people to recognize those who are obese. A waist circum-

ference which exceeds 80 cm. in female or 90 cm. in male is considered fat. There are a large variety of activities being conducted in schools and workplaces targeted to secondary school children and the workforce in this program.

Looking from the national scale program, Thai people are concerned more about their health. The problem is they do not have access to information that can raise awareness and help them to solve the overweight problem. The information they can access is mostly for commercial products which is often misleading. There are many projects studying and implementing the prevention and control of obesity and its consequences from various offices. Some of them formed the alliance and partnership to work together hoping that it would not be too difficult to overcome in the near future.

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Fig 1. The amount of fruits and vegetables consumed compared to fast food consumption.