

Social Mobilization for a Public Policy Path Way: A Case Study of Less Sugar creates a Sweeter Child, Addressing Childhood Obesity and Diabetes Epidemic in Thailand

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Introduction

A good society cannot be bought. It must be built. This concept has become popular in Thailand and has been adopted by many social activists over the last two decades. We Thais feel that our society is dynamic, constantly changing and vulnerable to erosion from the forces of globalisation and modernisation. Therefore, we need to proceed mindfully. Trade and industrial development encourage the interaction of the forces with cultures, social values and business-for-profit as dictated by capitalism. Numerous marketing techniques influence changes in people's physical activities, food supplies, food consumption and population health. These pressures may affect our way of life positively or negatively.

Technology creates more convenience and establishes modern trends. However, consequences of its overuse include physical inactivity, one of the most negative health effects. Regarding food supplies and consuming habits, there is a clear nutrition transition from high fiber -- mainly whole grain, vegetable and fruit-based diets -- to unhealthy high fat and sugar content foods. Dietary practices usually reflect cultural pressures from food industry advertising and food availability. People, especially the young, are soon accustomed to the new tastes and adjust their dietary habits to accommodate fatty and sweet foods (Mattsson and Helmersson, 2007). Addiction to fatty, sweet foods is a difficult habit to break. It is not easy to readjust our taste buds to prefer healthier foods. This is one big problem in creating health outcomes related to metabolic syndromes.

Retired medical doctor and popular Thai philosopher Dr. Praves Vasi has proposed a way to address difficult situations: 'the triangle that shifts mountains.' Mountain is a metaphor for problems or social phenomena that are considered hard to solve. The triangle is composed of a body of knowledge, social mobilization and political power. First, a body of knowledge comes from three major types of researches: Descriptive Research to describe and understand problems; Analytic Research to find causality that can be used to solve problems; and Experimental Research to rationalize those findings to implement using the 'Deming Cycle', abbreviated as PDCA, which stands for Plan, Do, Check and Act. These aim to find ways to resolve social dilemmas. Furthermore, the PDCA potent actions could highlight knowledge that link to the comprehensive rational model of policy influence.

Second, social mobilization means knowledge management from research findings. People participate in the learning process and are able to express their needs towards societal empowerment. Knowledge management is crucial for social movements. These activities need competent leaders to translate knowledge into action. Third, national or political power

is essential to manage the country's resources and regulate law and order (Praves Vasi 2002). This Triangle model has been widely adapted to various situations in Thai society.

As mentioned above, breaking the habit of fatty and sweet food consumption is a challenging task, made more difficult by economic growth, food surplus, food availability and marketing. What can we do if these habits threaten our population, especially our children's health? How would society as a whole react to protect their children? And how can children help each other to protect themselves? The social movements for reducing sugar intake formed in Thailand to take on this challenge.

For what and for whom? What was the purpose of providing research support to policy and who was intended to benefit?

Thailand is one of the top ten countries in the world experiencing obesity. A National Health Survey in 2007 found that 40% of children under six years of age were overweight and obese. About 15 million children are obese. Co-morbidity among obesity and metabolic syndrome such as hypertension, dyslipidemia, heart diseases, and diabetes are well documented. A type II Diabetes Mellitus (DM) is one of the major health risk outcomes. It is considered as a silent health threat whose prevalence is increasing dramatically. Worldwide, DM kills nearly 4 million persons annually, or 6 persons per minute. This number is higher than AIDS-related deaths. There are about 246 million diabetes patients in the world. Thailand has the fourth-highest death rate from diabetes in Asia. In 2007, there were four hundred thousand diabetes patients with eight thousand deaths in Thailand. About ninety thousand children are diabetic.

Associations between obesity and diabetes are complex and linked by many related factors, such as high fat and sugar consumption and inactivity. Epidemiological observations suggest that childhood obesity and diabetes are increasing. In the last 5 years, the number of obese Thai children increased 15-36%, and diabetics 10%. Emeritus Professor Dr. Chanika Tuchinda notes that, in her paediatric experience, she had rarely seen cases of Childhood type II diabetes before. She has observed the number of cases increasing at an alarming rate in the past two decades, along with obesity-related problems such as hypertension, high cholesterol and other metabolic syndromes.

The major causes of health-risk outcomes related to obesity are urbanization and nutritional transitions which lead to inactivity and an unhealthy diet. Consumption of foods containing high levels of fat, salt and sugar are increasing significantly. In the last two decades, Thai sugar consumption has risen from 17 to 30 kilograms per person annually. This is almost three times higher than the World Health Organization individual recommendation intake of about 10 kilograms per year. Reducing sugar consumption among Thai people, especially young children, is therefore important to tackle emerging adverse health consequences.

Less Sugar Intake in Thai Children Movement

In 2002, a 'No Sugar Network' organizing was established by various groups of people who concerned about increasing sugar consumption and its association with deteriorated health outcomes in people especially young children. These groups included dentists, pediatricians,

nutritionists and other academic professionals such as social sciences, education and mass communication. It was funded by the Thai Health Promotion Foundation that was regulated under the Health Promotion Foundation Act in 2001. The fund was generated by collecting revenue from 2% alcohol and cigarette tax annually.

The “Less Sugar Intake in Thai Children Project” (Dek Thai On Wan) was initiated by the ‘No Sugar network’ organization. It aimed to reduce sugar intake in children nationally. This would, in turn, reduce the prevalence and incidence of childhood diabetes and also decrease the age of children developing diabetes.

The Thai phrase on wan means less sugar consumption but also conveys the cultural meaning of a gentle and sweet manner. Therefore, on wan was used to address less sugar intake as well as to draw attention from the Ministry of Culture and the Ministry of Education. This was to integrate related projects that build around lower sugar consumption and culturally reflect the nature of Thai children.

The anticipated direct beneficiaries were the children. Parents and the Ministries of Public Health, Education and Culture benefited indirectly by disease prevention, reduced expenditure on health care services and enhanced child health and cultural development.

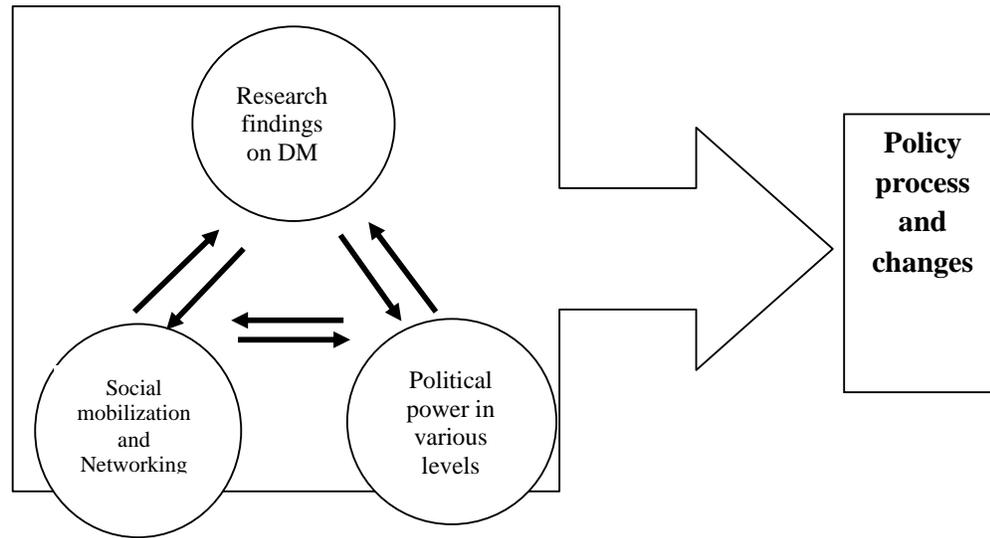
Of what? What parts of the policy system were targeted and what research was relevant?

Research relevant to the policy process included the incidence and prevalence of diabetes and obesity in children, the developmental age of diabetes, the level of blood sugar in children, the prevalence of junk food with high sugar content, junk food advertising and food and soft drink industry practices. Dr Kittinan Anakmani, Deputy Director of the Thai Health Research System revealed that a 2007 examination of 40,000 blood samples taken from people aged 15 years and older found that 6.4% males and 7.3 females had diabetes. From these figures we can estimate that approximately 3 million people have diabetes. Of those, about 1.8 million people do not know they've got it. Because of this, they may not take preventative measures and therefore may develop other chronic diseases such as blindness, kidney failure and coronary heart disease. Diabetes costs the Thai economy more than 100,000 million Baht (A\$50,000 million) annually.

Research was targeted at child health and preventive health policies. Pilot projects were conducted initially in 20 provinces, including the Bangkok Metropolitan area. The relevant policy system is the Nutrition Division of the Department of Health, which operates under the Ministry of Health.

The policy system ideas employed to reduce sugar intake in children included the following two models in different stages of policy processes: three streams and incremental models. The three streams model was applied during campaigns to raise awareness of high sugar consumption associated with obesity and related to metabolic syndrome diseases. We also present the Triangle model in this process, a model familiar to Thai people (Figure 1).

Figure 1. Triangle model for policy process related to sugar consumption in Children



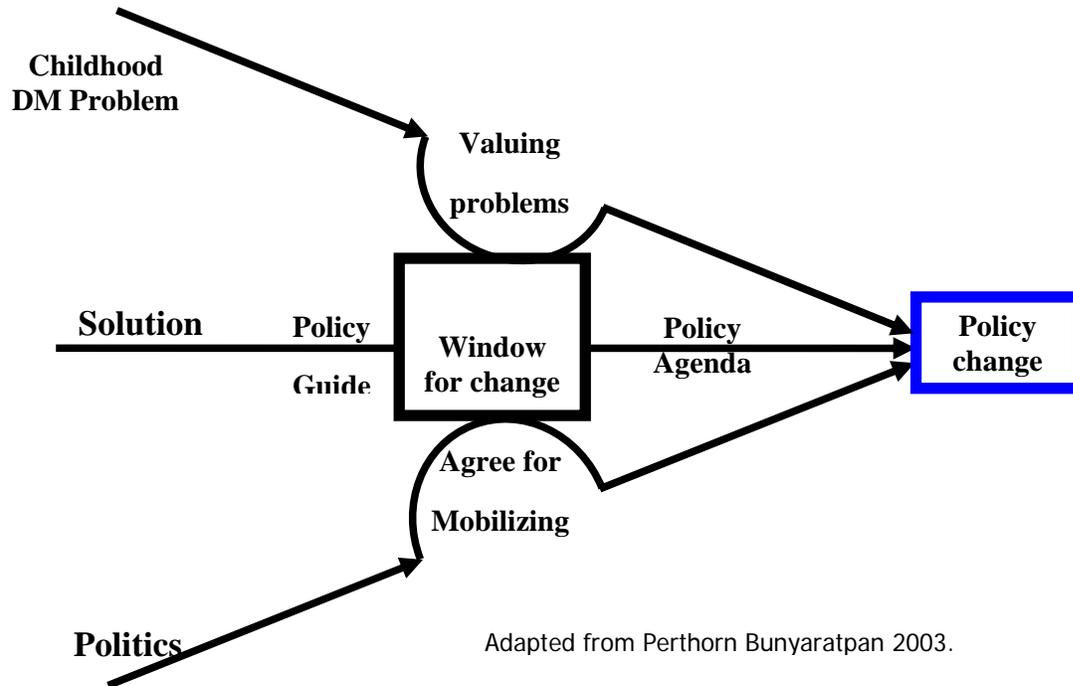
The Ministry of Public Health have reviewed relevant data and reported that Thai sugar consumption has increased about three hundred percent per person per annum over the last twenty years. The Triangle model has been adopted to address the problem of high sugar consumption. Three areas of research, awareness and action comprise the Triangle model:

1. Research has shown a parallel rise in sugar consumption, obesity, diabetes and dental caries increase among children.
2. Health professionals disseminate these findings to the general public. They are then absorbed into individual families and institutions such as schools through community awareness.
3. Policy makers then incorporate the findings so that they are adopted at the local level. This includes Tambon administrative organisations, schools and public health centres; provincial level includes a public health office and hospitals; and the national level, which is the Ministry of Public Health.

As a nutritionist, I was appointed by Bangkok Metropolitan Health Department as one of the committee members for monitoring schools less sugar consumption campaigns. At school movement level, I observed various school policies formulated to alter sugar consumption among children such as promoting vegetable and fruit consumption policy, school grown herbs for herbal drinks to replace soft drinks, and a school soft drink free zone policy. These policies also corresponded with one of the Ministry of Education policies on school health promotion. The Ministry of Public Health and The Ministry of Culture engaged in the program to promote healthy children with proper manner policy by signing a memorandum of understanding between the Ministries for mutual understanding and engaging to achieve goal for healthy children. The policy model theory for this part could be illustrated in Figure 2.

As well as school-based policies noted above another most important public policy generated from the 'less sugar consumption in children' movement was regulation for no sugar added in powder milk for baby in 2003.

Figure 2. The three streams policy for formulating less sugar consumption policy



Adapted from Perthorn Bunyaratpan 2003.

The three streams model was adopted because problems in child health were increasingly recognised. Health professionals -- including dentists, paediatricians, nutritionists and public health personnel -- alerted the community to child health problems exacerbated by high sugar consumption. Various television programmes and documentaries were produced on the rising incidence of childhood diabetes along with high sugar and sweet consumption among children. Also crucial in disseminating the public health message were non-government organizations and the private sector, including the advertising industry. Research into childhood obesity and blood sugar was conducted at schools and hospitals and in local communities. Schoolchildren themselves also participated in creating awareness of the harmful effects of sugar consumption. They composed, presented and acted in school plays, which they produced in different regional dialects.

The components of the three streams model -- problem, policy and politics -- are always dynamic. If they do not synchronise, then policy changes will not happen. In order for these streams to meet, numerous public awareness efforts emphasised Type 2 diabetes in children along with evidence of increasing sugar consumption. To create family and community awareness, communication tools were used. These included professional and regional conferences, television, radio, newspaper, journals and children's plays. The message generated also influenced individual behavioural change. Policy-driven solutions included a range of activities, such as networking and meetings, publicised by the media. Mass

communication were used to stimulate people with political power to seek ways of solving the problem, which in turn created a window for change. Subsequent policy systems eventually accepted the need for policy changes.

The incremental model captures the process of policy change step by step. In 2004, two years after the 'No Sugar Networking' organization was actively launched, the Food and Drug Office of the Ministry of Public Health regulated a policy of 'No added sugar for formula milk'. This was to prevent babies from becoming familiar with a sweet taste. In 2008, 'No Sugar Networking' began to use the media to effect a national policy change that would ban soft drinks in schools. However, it has not yet been considered by the government even though, at the local level, many schools have already implemented this policy. In 2009, the government has bravely introduced a sugar-pricing policy to increase the costs in order to lower sugar use by both the food industry and the general public.

The policy pathway that I was involved in was the relation of research and practice programs. My roles as researcher were research works on "Building immunization among Thai youth against fast food and junk food" and "Empowering school children for obesity control and prevention: a sustaining potentials development among children and youth". The research activities involved interviewing, Focus Group Discussion (FGD), self-report questionnaires and participatory action research. Information including child eating behaviour, perception toward food high fat and sugar contents related to health outcomes were obtained. Television advertising frequency on junk foods was recorded. How to empower youth effectively to develop appropriated healthy diets using appreciation, influence and control (AIC) technique and participatory approaches were employed. These researches knowledge were then disseminated by various activities such as writing reports, posters and oral presentations.

Who and how? Who provided the research support and how did they do it?

The research support was provided by various sectors. They were 1. The government sector, led by the National Economic and Social Development Board (NESDB) and the Ministry of Public Health; 2. Academic institutions; 3. Non-government organizations (NGOs) including the Thai Health Promotion Foundation; and 4. The private sector. The NESDB established a Brain Bank comprising a team of retired health professionals to mentor and advise young researchers. Her Majesty the Queen of Thailand initiated this idea. The NESDB and the Brain Bank requested the universities to undertake the research required for policy development and subsequent program implementation. The NESDB, the Ministry of Public Health and the Thai Health Promotion Foundation supported the project financially.

A task force was established in 2003 by the NESDB and the Ministry of Public Health to formulate policy proposal based on research findings and relevant information. Its members come from various sectors in the community: governmental, professional and NGOs. Members of the task force collate knowledge from the research areas. They then set up strategic plans, nominate networks to mobilize social awareness and motivate related networking.

Context? What contextual factors were important?

Important contextual factors were the divisive national political issues that have arisen in various circumstances during the past few years. These include several people's movements against the government that created societal unrest. These events created opportunities for people to analyse and engage more in political power. The idea of "The triangle that shifts the mountain" and other ideas emphasizing research findings to solve problems have been gradually well accepted. This was particularly due to the fact that the decision-makers in child health were relatively open to advice on strategic plans and appropriate intervention strategies.

Furthermore, the Brain Bank teams had a lot of experience with policy, as some of its senior members had previously supported prevention of child malnutrition. Furthermore, senior people had previously supported prevention of child malnutrition so the Brain Bank teams had a lot of experience with policy, as. Researchers from various sectors were actively involved in implementing programs and related activities. There was also some awareness of excess consumption of sugar, which contributes to childhood obesity, dental caries, diabetes and other serious health outcomes. Local administrative bodies and schools participated in programmes to reduce sugar intake in children by banning soft drink machines in schools. In general, politicians agreed and supported the reduction of sugar intakes. However, they still did not call for an open policy to impose restrictions on soft drink and junk food advertising.

A negative contextual factor arose when national government implemented a pricing policy to increase sugar prices by 37% and a retail policy to maintain prices of soft drinks, snacks and sweets at existing levels. This was to cut back on the use of sugar. Thai food and beverage manufacturers complained of spending about 5 billion baht (1\$US=40baht) on sugar yearly and threatened job layoffs.

One example of impediments to reducing sugar use among children is the policy of soft-drink manufacturers to sponsor children's sporting events. Another example is the soft-drink manufacturers' donations to the budgets of local schools. Both are subtle attempts to discourage schools from banning soft drinks.

Outcome? What was the outcome?

The project has resulted in a range of outcomes. For example, at the national level, the government introduced a sugar-pricing policy. This resulted in a backlash from food manufacturers which in turn led to a momentous public campaign to reduce the amount of sugar used in industrial food products. Another outcome is food labeling of sugar, fat and salt contents introduced to encourage people to choose healthy products. Third, the Ministry of Public Health introduced a policy banning sugar from baby formula milk. Additionally, the Ministry of Education has developed new school programmes based on on wan concerning such personal hygiene as hand washing and proper practices for sneezing or coughing.

At the local level, the Bangkok metropolitan government extended the "Healthy Thai Children" policy. This covers all age ranges, especially infants under two years, and aims to

improve healthy eating habits. Another outcome is that many local schools banned sales of soft drinks in their canteens and the presence of vending machine on school premises. Some schools no longer accept sponsorship from soft-drink manufacturers for sporting events. Additionally, schools are now encouraging students to eat more fresh fruit and vegetables and to follow national Daily Recommended Allowances for sugar intake when mixing their own drinks.

With increasing recognition that healthy children help to create a strong, cohesive Thai culture comes the knowledge that less sugar makes a sweeter child.

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