A COMPARISON STUDY OF THE SCHOOL LUNCH PROGRAM IN THE PUBLIC PRIMARY SCHOOLS BELONG TO BANGKOK METROPOLITAN ADMINISTRATION (BMA) AND THAI MINISTRY OF EDUCATION (MOE)

Eri Kai[1,*] Sathirakorn Pongpanich[1] Sangsom Sinawat[2]

[1]College of Public Health Sciences, Chulalongkorn university, Bangkok 10330, Thailand [2]Department of Health, Ministry of Public Health, Nonthaburi 11000, Thailand

ABSTRACT: This study was conducted to better understand the current school lunch practices among the public primary schools under the auspices of Bangkok Metropolitan Administration (BMA) and Thai Ministry of Education (MOE). A total of 6 schools, 3 from BMA and 3 from MOE, were selected to compare the lunch schemes. This study focused on qualitative approach. Data was mainly collected through direct observation and interviews. The study revealed that the program management and system are quite different between schools under BMA and MOE. The provision system of the school lunch was more regulated at BMA schools. To prepare a school lunch containing adequate energy and nutrients seemed to be still challenging for the most of schools under BMA and MOE. The amount of vegetable and fruit served in the lunch were remarkably less than recommended portions at both schools. The common difficulties of many schools encountering were students' food choices (western snacks and fast-food), lack of parental support, and the recent global increase in food price and inflation.

Keywords: school lunch program, child nutrition, school health

INTRODUCTION: The School Lunch Program (SLP) has been considered as an important contributor to children's health outcomes as well as to improve education access[1)]. When children are fed at school, they tend to stay and learn better[2)]. In Thailand, it has been implemented more than 30 years[3)] so it helped to reduce the number of children who were malnourish or underweight in nation wide[4)]. However, actual condition of the program is not regularly reviewed by expertise and evaluation study at national level is still underway. The primal object of this study was to explore the current school lunch schemes provided by public primary schools belong to two different agencies, MOE and BMA. The quality and appropriateness of school lunch practices were studied.

METHODS: The purpose of this study was to improve understanding the difference of the SLP in public schools under different authorities and to examine resource needs that schools perceive with regard to improving their current practices.

Based on the previous study done by MOPH, a total of 6 public primary schools, 3 from BMA and 3 from MOE, were chosen as representatives. The number of students ranged from 200 to no more than 600 children in each institution. All schools included students from kindergarten to grade six. These schools were selected by Ministry of Public Health (MOPH) because environmental conditions were not so different to each other and students were from similar socioeconomic background and thus considered as homogeneous.

This study focused on qualitative approach to investigate since the MOPH had done quantitative surveys. Data was mainly collected through direct observation and interviews. The researcher visited each school at least twice during the regular school days. Observation was done using check lists and it was started from preparation process of lunch until students finish eating. Interviews were held with a school director followed by a school lunch teacher at each institution.

*To whom correspondence should be addressed.
E-mail: eri_kai@hotmail.com

(total = 2 interviews at 6 schools) Questions were asked using an interview guide. Each interview lasted up to an hour; questions were translated and asked mainly by an interpreter.

Information was then categorized and the program contexts (input, process, and output) were compared between two types of schools. The secondary data from MOPH was also used partially to analyze and compare the nutritional values (macro and micro nutrients) of the lunch served at the both schools.

RESULTS AND DISCUSSION: All schools received 10 baht/day/student from the central government but BMA schools had better chance to be provided an extra budget from the local government. Both type of schools appointed school lunch teacher as a responsible person for the program in addition to some other teachers act as committee members for SLP.

There was a great difference in food provision system between the two types of schools. Lunch was prepared in school kitchen among all BMA schools whereas food was cooked and delivered from vendors outside at some MOE schools. Only one MOE school was preparing lunch from scratch. This was creating inconsistent management system and an involvement of personnel resulted less when food was brought from outside. For instance, school lunch menu was often developed by school lunch teachers when food was cooked within the school. On the other hand, menu was often brought by vendors when food was prepared other than school kitchen. This indicated the difference in menu development processes between schools.

It was also found that some MOE schools did not even posses any guideline for the lunch program while all BMA schools were given necessary information to manage the program. One of the school lunch teacher at MOE schools admitted that she did not have any reference to use so she would not know how to organize and make change in preparation system.

Nutrition contents data of the school lunch were obtained by MOPH last year using much precise techniques. From this data, an average amount of essential vitamins and minerals contained in school lunch over a week were compared with recommended values. In general, BMA schools provided higher amount of micronutrients (especially vitamin B_1 and $B_{2)}$ than MOE schools. This could be due to the fact that BMA schools were offering much variety food selection. In fact, a lunch was often composed with rice with two dishes with fruit or dessert at BMA schools, but MOE schools could offer rice with one dish only for most days. Fruits or dessert were only offered at canteen where students needed to buy when they wanted.

In addition, calories from macronutrients were better distributed in schools under BMA. The data showed that most calories came from carbohydrate in both schools, which were from rice or rice noodles, but MOE schools provided less than recommended amount. The proportion of protein and fat was slightly different between BMA and MOE schools. Especially, it was shown that calories from fat were 8% more than target amount at MOE schools. Overall, BMA schools provided better proportion of macronutrients from energy which suggests their lunches were consisting of more nutritionally balanced foods than that of MOE schools. This perhaps is because school lunch teachers at BMA schools generally held meeting monthly base to plan SLP while MOE schools did not have any meeting on constant base.

To prepare a school lunch containing adequate energy and nutrients seemed to be still challenging for the most of schools under BMA and MOE. The amount of vegetable and fruit served in the lunch were remarkably less than recommended portions at both schools. When asked to schoolteachers at each school, a common response was that students would not eat vegetable and they tended to eat only what they liked. This seemed to be a problem that most schools faced. Some schoolteachers hesitated to force students to eat more vegetables because students' parents would make complaints to the school.

Many students who bought snacks and fast-food were observed during and after the lunch time. All

schools sold food other than school lunch. The school directors and teachers mentioned that only selected items were sold at school canteen or by vendors from outside. However, MOE schools less restricted items sold by vendors. For instance, fast food items such as deep - fried chicken, French fries, and sugar concentrated drinks were sold more often when compared to schools under BMA.

In conclusion, school lunch scheme is practiced different way and is not consistent especially at the schools under MOE. It is up to the schools how to provide school lunch to all students, but the meal should be prepared accordingly to the guideline at least to ensure and maintain the quality of lunch which should be safe and healthy.

The findings suggest the need of creating a support system to help schools provide healthy well-balanced meal in practical way. Especially, developing a creative menu using fruit and vegetable is recommended in order to increase students' consumption. The recent national survey reported that 12.5% of children age between 6 and 14 consumed fruit and vegetable less than two days a week. Some children did not consume at all during a week[5)]. This is quite significant as it is recommended to consume more than 3 servings for each group on daily basis[6)]. More vegetables could be added to soup, curry, or fried rice that often served at many of the schools, while fruits could be added as healthy dessert for their lunch.

However, both school directors and teachers pointed out that the price of food was increased significantly in recent days. This seems as a big problem to schools where school lunch teachers go to the market to purchase some items for their lunches. In fact, 10 baht might not be enough to prepare a healthy lunch to all. Otherwise, there is a need of developing a network to purchase food in bulk or large portions so that both BMA and MOE schools in the same districts can share to minimize the cost.

Further, strong support from the parents is also required to motivate students to eat fruit and vegetables more often. In Bangkok, many students tend to eat fast food over traditional Thai food today. Their diet behaviors heavily depend on what they eat at home, indeed. Therefore, more students will consume fruits and vegetable when they practice eating at home with family.

The significance of the SLP should gain more attentions from many sectors, and parents as well as the local community members need to be promoted to increase their understanding and participation in the program. The school lunch program will not be completed without the supportive environment.

REFERENCES:

1. Pollitt E. 1984. Nutrition and educational performance. In Z. Morsy (Ed.), Prospects: quarterly review of education, Vol. XIV, pp. 443-460. Paris: UNESCO.

2. Mitchell A. 2003. School feeding: now more than ever. Food, Nutrition and Agriculture (FAO) 1014-806X, no. 33, p. 6-12. Available on http://www.fao.org/DOCREP/006/J0243M/J0243M00.HTM.

3. Education for All. 1999. The Year 2000 Assessment Thailand Country Report. Bangkok: Ministry of Education, Thailand.

4. Kachondham Y, Winichagoon P, Tontisirin K. 1992. Nutrition and Health in Thailand: Trends and Actions: Institute of Nutrition Mahidol University.

5. National Statistical Office. 2005. The population Health Care Behavior Survey 2005 (Food Consumption Behavior). Bangkok: National Statistical Office, Ministry of Information and Communication Technology.

6. Ministry of Public Health. 2001. Nutrition Flag; Healthy Eating for Thais (Manual) - For good health, eat a variety of foods in appropriate amounts: Department of Health, Ministry of Public Health, Thailand.

การศึกษาเปรียบเทียบโครงการอาหารกลางวันในโรงเรียนประถมศึกษา สังกัดกรุงเทพมหานครและกระทรวงศึกษาธิการ

เอริ ไคร์[1,*] สถิรกร พงศ์พานิช[1] แสงโสม สีนะวัฒน์[2]

[1]วิทยาลัยวิทยาศาสตร์สาธารณสุข จุฬาลงกรณ์มหาวิทยาลัย ปทุมวัน กรุงเทพมหานคร 10330

[2]กรมอนามัย กระทรวงสาธารณสุข นนทบุรี 11000

บทคัดย่อ: ศึกษาเพื่อทำความเข้าใจถึงการดำเนินงานของโครงการอาหารกลางวันในโรงเรียนประถมศึกษาของกรุงเทพมหานครและกระทรวง ศึกษาธิการ โดยเลือกศึกษา 6 โรงเรียน เพื่อทำการเปรียบเทียบ โดยเลือกโรงเรียนที่อยู่ภายใต้ระบบการบริหารงานของกรุงเทพมหานคร 3 โรงเรียน และของกระทรวงศึกษา 3 โรงเรียน เก็บข้อมูลโดยการศึกษาเชิงคุณภาพ อันได้แก่ การสังเกตและการสัมภาษณ์ ผลการศึกษาพบว่า ระบบและการบริหารจัดการโครงการอาหารกลางวันของโรงเรียนของกรุงเทพมหานคร และของกระทรวงศึกษาธิการ มีความแตกต่างกัน โดยเฉพาะอย่างยิ่งเรื่องระบบการแจกจ่ายอาหาร โรงเรียนของกรุงเทพมหานครมีระบบที่ชัดเจนกว่า อย่างไรก็ตามพบว่าโรงเรียนทั้งสองระบบ ยังมีปัญหาในเรื่องการเตรียมอาหารกลางวันที่มีสารอาหารและพลังงานที่เพียงพอ นอกจากนี้จำนวนผักและผลไม้ที่แจกในโครงการฯยังมีจำนวนน้อยกว่าที่มาตรฐานกำหนด ปัญหาที่พบส่วนใหญ่ของโครงการฯ ก็คือ นักเรียนชอบรับประทานอาหารแบบตะวันตก อาหารจานด่วน ขาดการสนับสนุนจากผู้ปกครอง และการเพิ่มขึ้นของราคาอาหาร

คำสำคัญ: โครงการอาหารกลางวัน โภชนาการในเด็ก อนามัยในโรงเรียน

*ติดต่อได้ที่ eri_kai@hotmail.com