

School lunches, the key to children's growth and health

School lunches around the world and in Japan

1. The importance of school lunches

Many children around the world still cannot attend school because they help field work or fetch water. In addition, many are too hungry to concentrate on studying.

School lunches impact on solving these concerns. Moreover, studies have shown that children who were malnourished during their preschool years can catch up with the growth by taking the necessary nutrients¹. School lunches can also be the opportunity for children to improve their nutritional status.

Childhood obesity is another concern which is related to the parents' education level². This is another way that education is very important for solving nutritional problems. Also, childhood eating habits may affect the onset of future cardiovascular diseases and their risk factors³. School lunches are expected to build good eating habits and contribute to non-communicable diseases (NCDs) prevention in the future.

Thus, school lunches greatly impact children's school attendance and nutrition improvement. Around the world, along with providing school lunches, by implementing activities such as food and nutrition education ("Shokuiku"), deworming, health checkups, vaccinations, hygienic hand washing and installation of water fountains, schools can contribute to the healthy growth and development of children.

2. School lunches for children's nutrition in Japan

In 1889, school lunches were provided for the first time in Japan with the aim of combating poverty alleviation and improving nutrition. In 1954, the School Lunch Program Act was enacted, and it included "Recommended Dietary Allowance (RDA) in School Lunches", and later revised as the "Dietary Reference Intakes (DRIs) in School Lunches". The "Diet and Nutrition Teacher" at each school plans the menu based on the "DRIs in School Lunches" along with the students' situations, and the "Cook" prepares school lunches in a hygienic manner.

Evaluating whether the current school lunches are appropriate for children's growth and health is also important to ensure that better school

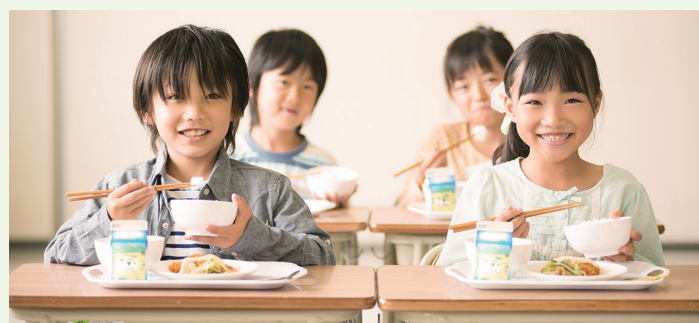
lunches are provided. For this purpose, schools conduct regular surveys on children's school lunches intake, height and weight, and food intake at home, and the results are reflected in menu planning. In addition, "the stable procurement of ingredients and supplies" is indispensable for providing quality school lunches. The School Lunch Association in each prefecture plays the central role for this. Also, through "Shokuiku" at school, children acquire the knowledge of "food" and skills to choose well-balanced "meals" to practice healthy dietary life.

3. Japan has the lowest obesity rate among developed countries

Obesity is one of the world's most critical nutritional challenges. Obesity affects mortality as well as health care costs and economic losses. Japan is one of the OECD countries with the lowest levels of obesity among children and adults^{4,5}.

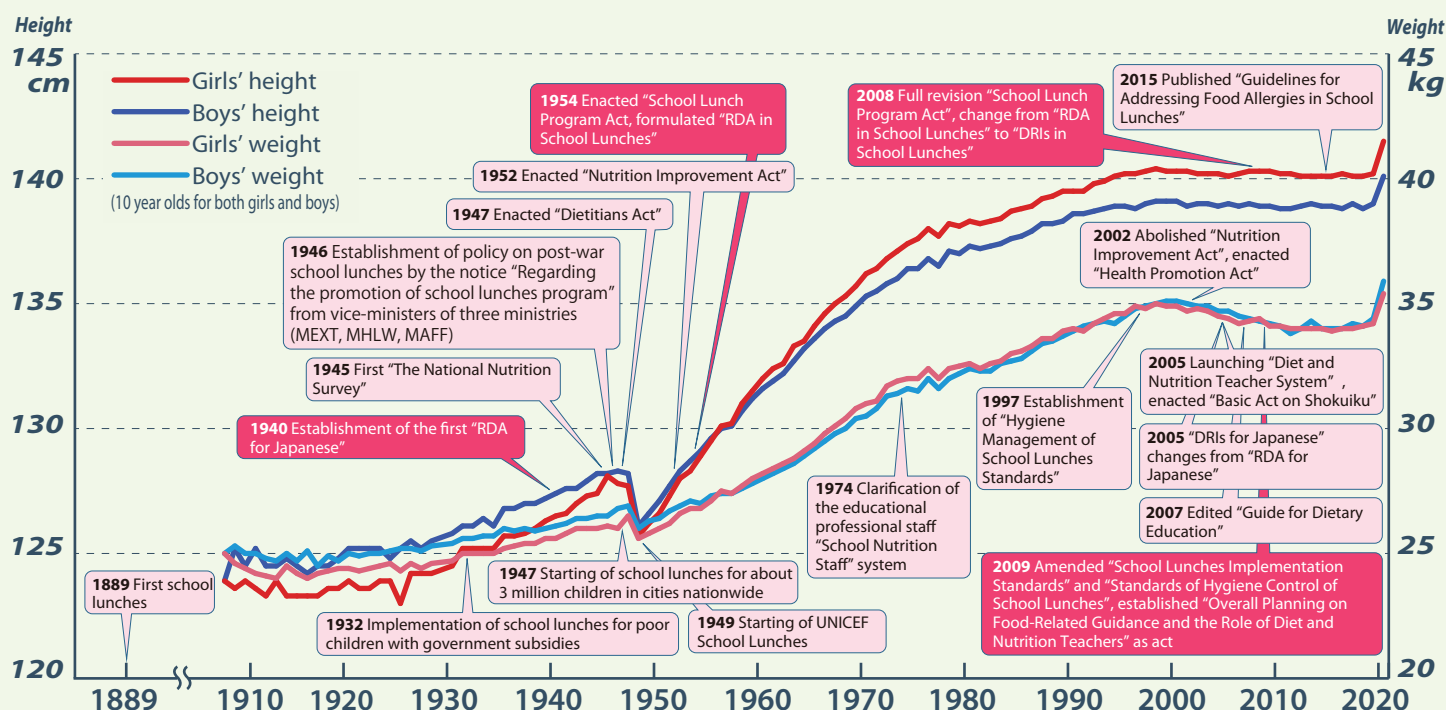
4. School lunches to prevent future NCDs

One of the factors for the low obesity rate in Japan is school lunches. It has been shown that when the school lunches coverage rate increases by 10% at prefectural level, the rate of overweight and obese boys decreases significantly in the following year⁶. This indicates that school lunches possibly contribute to NCDs prevention, as it has been pointed out that adolescent overweight and obesity affect on future NCDs and mortality.



School lunches and nutrition policy in Japan and the transition of height and weight of boys and girls⁷

In Japan, many actions have been taken to support the healthy growth and the development of children.



References : 1. Benjamin T. Crookston et, al. Children Who Recover from Early Stunting and Children Who Are Not Stunted Demonstrate Similar Levels of Cognition, 2010
2. Stella K Muthuri et, al. Relationships between Parental Education and Overweight with Childhood Overweight and Physical Activity in 9–11 Year Old Children: Results from a 12-Country Study, 2016 3. Dietary Reference Intakes for Japanese (2020 Edition), MHLW 4. OECD Obesity UPDATE 2017 5. OECD Health at a glance 2019
6. A Miyawaki et, al. Impact of the school lunch program on overweight and obesity among junior high school students: a nationwide study in Japan, 2019
7. Survey on School Health Statistics, MEXT

Global cooperation making the best use of the characteristics of Japanese school lunches

JICA can implement the following cooperation by utilizing the characteristics of Japanese school lunches.

1. Development of "DRIs in School Lunches"

Taking into consideration the nutrients that may be in short or in excess at home, it shows DRIs in School Lunches at the national level. The values are further reflected in the menu according to the characteristics of each region.

3. School Lunches Providers

A wide range of professionals collaborate, including cooks who prepare delicious school lunches in a hygienic manner, school nurses who protect children's physical and mental health, principals who take all responsibilities for providing safe and secure school lunches.

5. Food Procurement

In order to provide school lunches on a continuous basis, it is important to purchase the necessary food materials according to the budget. In addition, the inventory is well managed to prevent materials from running out or expiring.

7. "Shokuiku" and Fostering Independence

Through "Shokuiku", schools help children acquire the ability to "self-management skills on food" and build "good eating habits" so that they can lead healthy lives in the future. Collaboration with families is also promoted for practicing good eating at home.

9. Promotion of Community Collaboration

School lunches are provided by community involvement, mainly by parents. The participation of parent-teacher association not only enables effective school lunches management, but also encourages them to understand the importance of education.

2. Diet and Nutrition Teachers

They are responsible for the preparation of menus that are adapted to the characteristics of each region, based on knowledge of nutrition and an understanding of the DRIs in School Lunches. For that purpose, it is also required to have the abilities to properly understand and evaluate the actual conditions of the target children.

4. Hygiene Management

Hygienic management of the cooking area is essential to prevent food poisoning. Hygienic management is required, including health management, hand hygiene, grooming of cooks, cooking methods, checking water quality, cleaning of kitchen utensils and cooking area.

6. Monitoring / Assessment

In order to provide better school lunches, it is important to monitor and evaluate children's growth and health status. Daily school lunch intake, annual height and weight measurements, and food intake at home are surveyed and evaluated comprehensively.

8. Private-sector Partnership

In Japan, it has been possible, by private-sector partnership, to introduce technologies and tools, and to use food materials for providing school lunches, as well as the use of nutritious food, school lunches management, hygiene management and kitchen environment maintenance.

10. Strengthening of Administration to Support School Lunches

【National Government】

MEXT, MHLW, MAFF

Establishment of acts related to school lunches / Preparation of various manuals and guidelines / Notification, survey, and report to prefectures and municipalities

【Prefectures/Municipalities】

Board of Education

Revision of manuals and guidelines to meet the current situation of each municipality / Implementation of audits, guidance and trainings for each school

【Prefectures】

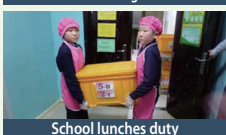
School Lunch Association*

Management of ingredients and supplies / Hygiene management / Training / Collection and provision of information / Promotion of "Shokuiku" / Transmission of food culture

*Unique organization in Japan that distributes supplies for school lunches to schools in each prefecture

Introduction of Cooperation Tailored to the Needs of Each Country

The Project for School Lunches Introduction in Mongolia (Technical Cooperation)



Establishing the environment and system to provide safe and nutritionally balanced school lunches in primary and secondary schools nationwide

- Development of original nutrition reference intakes for school children
- Training of personnel who can plan menus
- Establishment food procure system
- Strengthening of administrative capacity

"Shokuiku" Approach to Strengthen Diet-related Disease Prevention (Training Program)



The participants understand "Shokuiku" approach of Japan as a way to improve the health of Malaysian people, and learn how to practice it

- Lectures on Japan's "Shokuiku" promotion system
- Observation and experience "Shokuiku" in private companies and schools
- Experience cooking class and tasting school lunches

Establishment of Sustainable School Lunches Model by Community Participation in Bangladesh (Grass-roots Cooperation)



Providing school lunches that contribute to the improvement of children's nutritional status and establishing a sustainable system by local community

- Establishment of operational and management system for school lunches
- Capacity building for operational monitoring skills
- Engagement of mothers' group

Participatory and Decentralized School Management Support Project in Madagascar (Technical Cooperation)



Improving the quality of pre-school and primary education by providing school lunches through community collaboration

- Cooperation with the local government
- Formulation of the system for school management committee
- Strengthening the capacity of relevant persons
- Provision of school lunches