Health Disparity and Food Assistance among Children in Japan

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Summary Cumulative evidence shows that people with lower socioeconomic status (SES) have higher risk of mortality and non-communicable diseases, which are strongly related to diet. A low diet quality may be related to a rise in chronic non-communicable diseases from childhood onward. This literature review summarizes the food assistance for reducing health disparities among children in Japan. The school lunch program in Japan is important for achieving adequate nutrient intakes in schoolchildren and reducing disparities of adequate nutrient intake by household income levels. Additionally, the number of children’s cafeterias, contributing to the support of children suffering from poverty by providing free or low-cost meals in a comfortable environment, as well as being bases for multi-generational community communication, and where local children and adults eat together, has rapidly increased. Those who with lower SES tended to use food supports, such as the children’s cafeteria, as well as food pantries and emergency home food deliveries, during the COVID-19 pandemic. It will be necessary to establish a public-private system that can provide information on local food assistance to people whose socioeconomic status has changed rapidly.

Key Words food assistance, school lunch, children’s cafeteria, food pantry, COVID-19

People with lower socioeconomic status (SES) have higher risk of mortality (1), which is strongly related to diet (2). SES also affects diet (3–8). A low-quality diet may be related to an increment of chronic non-communicable diseases from childhood onward. In Western children, a systematic review reported the positive associations between a low SES and low intake of vitamin B₁₂, folate, vitamin C, vitamin D, calcium, iron, iodine, and zinc (9). In addition, children from low-SES households in Western countries have less healthy food and nutrient intakes than those from middle- or high-SES households, including higher intake of meat products and sugar-sweetened drinks, and lower intake of fruits, vegetables; fish, and low-fat milk (10, 11). In Asia, children from low-SES households in Korea consumed less energy from protein and more energy from carbohydrates compared with those from high-SES households (12).

In this literature review, I summarize the food assistance for reducing health disparities among children in Japan.

School lunch program

In 1889, a Buddhist confederation provided lunches for poverty-stricken children in an elementary school in Tsuruoka City, Yamagata Prefecture (13). This marked the beginning of charity school lunch services in Japan. Most school lunches were limited to impoverished children and had the effect of encouraging them to attend school in the Meiji (1868–1912) and Taisho (1912–1926) periods. In 1954, the School Lunch Law was enacted, and was significantly revised in 2009 according to the Basic Law on Shokuiku. In 2018, the percentage of elementary schools and junior high schools serving school lunches had reached 99.1% and 89.9%, respectively.

Horikawa et al. (14) reported that the prevalence of nutrient shortages on days without a school lunch was higher compared with that on days with a school lunch for most macro- and micronutrients regardless of household income levels among children aged 10–11 y. Children from low-income households tended to have higher rates of nutrient shortages for vitamin B₆, pantothenic acid, potassium, magnesium, phosphorus, iron, and zinc than those from middle-income households on days without a school lunch. Additionally, Yamaguchi et al. (15) reported that compared with children with high maternal education (>15 y), those with low maternal education (<13 y) had less vegetable intake by 22.3 g/1,000 kcal and less fruit intake by 7.5 g/1,000 kcal.

Using the 2014 National Health and Nutrition Survey in Japan, Kurotani et al. (16) reported that higher diet quality was observed in those with higher household income in the 15- to 18-y-olds, who were in high schools without school lunch programs. In contrast, there were no associations between diet quality and household income levels among those who were 6–14 y old, who were provided school lunches in elementary or junior high schools. It suggests that the school lunch program in elementary and junior high schools might help to reduce socioeconomic disparities in diet quality.

These findings suggest that school lunches are important for achieving adequate nutrient intakes in schoolchildren and reducing socioeconomic disparities of adequate nutrient intake.

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Children’s cafeteria (Kodomo shokudo)

The children’s cafeteria (Kodomo shokudo in Japanese) is a free or low-cost cafeteria where a child can go alone. These are voluntary, private-sector initiatives, and the number had grown to 6,007 by December 2021 (17). The objectives of children’s cafeteria have varied from providing meals to hungry children, to eliminating isolated meals, to providing food education using nutritious foods, to creating a place for community interaction. A common goal of children’s cafeterias was to build a community where no one is left behind and where no one is likely to be left behind through “building a community with children at the center” (18). Thus, children’s cafeterias contribute to the support of children suffering from poverty by providing free or low-cost meals in a comfortable environment. Additionally, children’s cafeterias are bases for multi-generational community communication, and where local children and adults eat together (18).

As the number of children’s cafeterias increased, the number of those who knew about children’s cafeterias also increased (19). As for Japanese policy, children’s cafeterias were considered as poverty alleviation, but recently are considered as the solution to loneliness and isolation (20).

Food support during the COVID-19 pandemic

The coronavirus disease 2019 (COVID-19) pandemic continues to spread worldwide. It has been posing a serious threat to our healthcare and causing social and economic impacts. The Japanese government declared a nationwide state of emergency on 16 April 2020, based on the Act on Special Measures for Pandemic Influenza and New Infectious Diseases Preparedness and Response (Act No. 31 of 2012). During the COVID-19 state of emergency, school children lost access to school lunches.

Horikawa et al. examined the relationship between household income and the quality of meals in Japanese schoolchildren before, during, and after the state of emergency among 1,111 children aged 10–14 y old (21). “Well-balanced dietary intake” was lower in all household income levels during the state of emergency compared with before. The proportion of those with a “well-balanced dietary intake” at least twice a day was notably low in lower household income levels during the state of emergency compared with before the declared state of emergency. Guardians from low-income households had significantly higher rates of having less: time, psychological room, and financial position to prepare meals during the state of emergency (21).

Kurotani et al. conducted an online survey among 33,004 (16,065 men and 16,939 men) people aged 20 or older in February 2021 (22). We defined users of food assistance as those who used one of the following types of food assistance: eating on site (e.g., children’s cafeteria), receiving food at a specific location (e.g., food pantry), or having food delivered to their home (e.g., emergency home food delivery). The proportion of users of food assistance was 9.3%, and that of users of children’s cafeterias was 4.7%, that of users of food pantries was 3.9%, and that of users of emergency home food delivery 6.8% (with duplicate responses) (Fig. 1). Of 3,407 people who had child/children aged 6–15 y old, the proportion of users of food assistance was higher than that among total subjects; the proportion of users of food assistance was 14.9%, and that of users of children’s cafeterias was 9.1%, that of users of food pantries was 7.5%, and that of users of emergency home food delivery 10.8% (with duplicate responses). The adjusted odds ratios for food assistance use were higher for those with changes in employment status and/or household income than those with no changes in either. One in ten individuals used food assistance during the COVID-19 pandemic. It was suggested that many of the users of food assistance had changed their employment status or household income during the COVID-19 pandemic.

In the future, it will be necessary to establish a public-private system that can provide information on local food assistance to people whose socioeconomic status has changed rapidly.

Disclosure of state of COI

No conflicts of interest to be declared.

REFERENCES


