

Special Milk Program

The Special Milk Program (SMP) operates in schools and child care institutions that do not participate in other Federal meals programs—the National School Lunch Program (NSLP), the School Breakfast Program (SBP), or the Child and Adult Care Food Program (CACFP). Schools that do participate in these programs may also participate in the SMP to provide milk to children in prekindergarten or kindergarten programs who do not receive meals. Participating institutions provide milk to children and receive a Federal subsidy for each half pint of milk served. Children from households with incomes at or below 130 percent of the Federal poverty level may receive milk free of charge.

Research on the SMP is sparse and has generally been conducted as an adjunct to research on the NSLP and SBP. Available data indicate that the SMP contributes to increased nutrient intake, particularly among children from low-income families and elementary school children.

Program Overview

The earliest version of the SMP began in 1940. A federally subsidized program distributed milk to children at 15 elementary schools in low-income areas of Chicago. Children were charged 1 cent per half pint of milk. Those who could not pay received milk for free, with the cost paid by private donations. During the next decade, similar programs were introduced in low-income areas of other large cities. The SMP began operating nationally in 1955 when legislation provided funds to the Commodity Credit Corporation (CCC) to be used for school milk programs.¹⁶² In 1956, eligibility for institutional participation was expanded beyond schools to include other nonprofit institutions that cared for children. The SMP came under the supervision of the U.S. Department of Agriculture (USDA), Food and Nutrition Service (FNS) when it was incorporated into the Child Nutrition Act of 1966. The SMP was permanently authorized in 1971.

¹⁶²The CCC is a Government-owned and -operated entity that was created to stabilize, support, and protect farm income and prices (U.S. Department of Agriculture (USDA), Farm Service Agency (FSA), 2003).

From the beginning, schools were allowed to charge children for milk, but the price could not exceed the cost to the school after the Federal subsidy. In FY 1975, children eligible for free lunch under the NSLP were made automatically eligible for free milk under the SMP. This free-milk provision significantly increased the program's administrative complexity because school administrators now had to track milk served to free-milk-eligible children separately from milk served to other children.

For 25 years, the SMP was open to all schools and child care institutions, regardless of whether they participated in other food assistance and nutrition programs (FANPs). In FY 1982, the Omnibus Budget Reconciliation Act (OBRA) limited participation to schools and institutions that did not participate in other FANPs and to private schools with annual tuition of less than \$1,500. These restrictions were eased in 1987 when the \$1,500 tuition restriction on private school participation was lifted. In FY 1988, eligibility was reinstated for schools and institutions that participate in other FANPs. In these institutions, SMP participation is limited to half-day prekindergarten or kindergarten students who do not receive meals.

Since the late 1960s, when the SMP served around 3 billion half pints of milk per year, the size of the program has declined dramatically. At the same time, other child-focused FANPs, particularly the SBP and the CACFP, have grown substantially. In 1980, even before the OBRA changes, the SMP was providing just 1.8 billion half-pints of milk, or somewhat more than half of the amount served in the late 1960s. By 1990, this number had fallen to 181 million.

Today, relative to total Federal expenditures for food and nutrition assistance, the SMP is the third smallest FANP, overall, and the second smallest FANP to provide direct food assistance benefits (only the Senior Farmers' Market Nutrition Program and the Team Nutrition Initiative had lower total costs in FY 2002). In FY 2002, the SMP provided approximately 113 million half pints of milk at a cost of \$16 million (USDA/FNS, 2003). Participating institutions were reimbursed for the net price of purchased milk for milk served to students free of charge and \$0.135 per pint for milk served to paying students. In FY 2000,

the latest year for which information is available, almost 7,000 schools and residential child care institutions, 1,100 summer camps, and 500 nonresidential child care institutions participated in the SMP (USDA/FNS, 2002).

Research Review

Research on the SMP is extremely limited. Only two studies that assessed program impact were identified. Both of these studies are based on data that are more than 20 years old, reflecting a time when the program was about 15 times as large as it is today. The only other relevant research identified was a study that examined the relationship between milk consumption and lactose intolerance among SMP participants.

Of the two studies that assessed SMP impacts, the most recent and comprehensive is the National Evaluation of School Nutrition Programs (NESNP), reported by Wellisch et al. in 1983. This study took place after OBRA limited the SMP to schools that did not participate in any other federally sponsored meals program.

Data were collected on a nationally representative sample of 6,556 students (and their families) in grades 1-12 in 276 public schools in 90 school districts. Data collection included in-home interviews of parents regarding family composition, economic status, and food expenditures; in-person interviews of students in school, including a 24-hour dietary recall; and mail surveys of State, district, and school foodservice administrators, with telephone followup.

Although the study looked at a wide variety of outcomes, the SMP analysis focused solely on dietary intake. Participants in the SMP were compared with children who did not participate, using multivariate regression to estimate program effects. The researchers cautioned that results should be interpreted with care because of potential selection bias.

With that caveat, the study reported that the SMP significantly increased students' intakes of food energy, calcium, riboflavin, protein, magnesium, and vitamin B₆. Differences were more pronounced for below-median-income students and for elementary students. Among secondary students, impacts for energy were related to family income—the higher the family income, the larger the difference between participants and nonparticipants.

Wellisch and colleagues constructed an index of nutritional quality (INQ) to measure relative nutrient

density.¹⁶³ They reported positive impacts on INQs for calcium and magnesium, indicating that SMP participants consumed more of these nutrients per kilocalorie than nonparticipants. Significant negative effects were reported for INQs for niacin, iron, and vitamin C. These results are largely consistent with the nutrient content of milk; milk is rich in calcium and magnesium and provides little to no niacin, iron, or vitamin C.

A study by Robinson (1975) is the only other study to address SMP impacts. This study is even older than the NESNP study, and the data are much more limited. The study used data collected in March and April 1975, after the free-milk provision had been implemented and before the SMP was restricted to schools in which no other Federally funded meal service program was operating. The objectives of the study were to assess the impact of the free-milk provision on the SMP, assess the impact of the SMP and its free-milk provision on the NSLP, determine the sources and amounts of milk and food that children consumed, determine which children used the SMP, determine when during the day children preferred to have milk available and whether schools were meeting these preferences, and determine the extent of milk waste associated with all USDA programs.

Schools were selected through a two-stage sampling process. In the first stage, approximately 4,000 schools were randomly selected from the Office of Education's database of public and private schools. In the second stage, schools were stratified according to various configurations of participation in the SMP and the NSLP. From these strata, a subsample of 768 schools was selected for the study. Data were collected by means of a school administrator questionnaire, a foodservice supervisor questionnaire, and student questionnaires administered to randomly selected classes or students within each school. A milk waste study was also conducted in schools that participated in the NSLP, the SBP, or the SMP.

More than 20,000 student questionnaires were collected. Results indicated that students who attended schools that participated in the SMP drank more milk than students who attended schools that did not participate in any Federal meal service program. The author noted, however, that the increased milk consumption may have resulted, at least in part, from the NSLP-90 percent of SMP schools also participated in the NSLP.

¹⁶³INQ = Recommended Dietary Allowance for nutrient/Recommended Energy Allowance, based on energy and nutrients consumed over 24 hours.

Robinson avoided drawing conclusions based on SMP-only schools on the grounds that these schools may have contained nonrepresentative groups of students (in these schools, students who were eligible for free SMP milk constituted only 3 percent of enrollment). Nevertheless, the report mentioned that the few free-milk-eligible children at SMP-only schools reported drinking 77 percent more milk at school than corresponding ineligible children. For these same children, away-from-school consumption was 7 percent less, and overall milk consumption was 12 percent more than for ineligible children.

Finally, a study by Paige and Graham (1974) looked at the incidence of lactose intolerance among SMP participants. Although dated and not specifically focused on the impact of the SMP, the findings may be of interest to researchers interested in the SMP. The authors gathered data on the amount of SMP milk consumed by 320 African-American children and 125 White children in the grades 1-5. The study was conducted in two schools in the lowest socioeconomic census tracts in Stamford, CT. Two separate measurements were taken. The analysis compared rates of milk consumption among the sampled children with race-specific rates of lactose intolerance reported in medical literature.

The authors report that 36 percent of the African-American children drank less than 50 percent of their SMP milk (a half pint) compared with 18 percent of the White children (a statistically significant difference).

The children's pattern of milk rejection, along with patterns of milk rejection among adults of various races cited in other studies, was plotted against a distribution of lactose-intolerance rates among African-Americans and Whites. Patterns of milk rejection among the SMP children appeared to follow known patterns of lactose intolerance. The authors concluded that some SMP participants would benefit more from alternative sources of protein and calcium than from the milk provided by the SMP.

Summary

The available information on the nutrition-related impacts of the SMP is very limited and is of questionable relevance to today's program. The strongest and most recent study was conducted in the early 1980s, when the program was roughly 15 times as large as it is now. That study suggested that the SMP increased children's intakes of food energy and several nutrients. An earlier, though substantially weaker, study suggested that the program increased children's consumption of milk. In both cases, however, researchers put substantial and appropriate caveats around their findings.

Given the size of the SMP today, relative to other child-oriented FANPs, it is not clear that an updated study of the program's impacts should be viewed as a priority. If feasible, however, studies of the NSLP, SBP, and/or CACFP might incorporate a study on the SMP, as was done in the NESNP.

References

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