Promoting food and nutrition security through social protection: School meals and family benefits in Eurasia

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The role of school meal programs is evolving

School meal programs have a historic role in stimulating school participation.

Their contribution to addressing food insecurity and improving nutritional status is also well documented.

Recently school meal programs have been given a new objective: to enhance small holder farm development.

Which objective is emphasized depends, of course, on context.

I will use this session to illustrate that improvements in education, and nutrition as well as the availability of new social protection instruments have shifted the potential roles of school meal programs into new areas and challenges.
To a large degree we often use 20th century findings to motivate 21st century issues

I will review these finding briefly but it is important to bear in mind three themes:

First: a recent review found an overall impact of school meal interventions on learning, but the evidence was mixed; impacts are strongest where enrolment is low and food insecurity high.

Second: But programs are not concentrated where food insecurity is high; only 12 percent of children attending school in low-income countries receive school meals. In contrast, 37 percent of students in upper middle income countries benefit from such support.

Third: Globally, primary enrolment is > 90% while preschool enrolment is < than 50%.

Let us look at the stylized evidence.
Do School Meals Improve School participation?

Short answer: Often

Impact on enrollment is similar to Conditional Cash Transfers

But progress in universal school participation and gender parity in the last two decades has reduced the need for additional incentives for school enrollment, particularly for primary schools.

School meals are usually pro-poor and, thus, serve a social protection function. But since meals are hard to target to poor children within schools, cash transfers can serve this function more effectively.
Do School Meals Improve Learning?

Short answer: Occasionally

Less evidence than on enrollment. Timing is an issue; snacks or breakfasts may influence attention span; lunches less likely. Timing may be disruptive in some settings.

Cash transfers generally do not address hunger and skipped meals directly.

Impact of meals on learning is dependent on classroom organization and teaching quality.
Example: Armenia

School meals are provided in primary settings. But enrollment is universal in both primary and secondary. Thus, it is unlikely that the program adds to enrollment. There are also no data on attendance.

There are new data on learning: Preschool students from families with low income or limited education improve processing speed and attention if they get a morning snack.

This does not lead to school readiness for the average student but it does increase verbal ability for children whose caregivers did not go beyond secondary school.

The program has a modest impact of poverty, but the impact per $ spent is greater than for the much larger Family Benefit Program. Nutritional impacts are, however, currently unknown; even the nutritional needs of school goers are not well understood.
Do School Meals Improve Nutrition?

Short answer: Micronutrient fortification is often effective, but impact of calories and protein is highly context specific; the most vulnerable period for stunting is in utero and before 2 years.

Global evidence shows that meals can contribute to weight gain. This gain is greater the younger the child.

But this not always desirable. Indeed, in many settings, new programs are being designed to reduce the risk of overweight and to increase diet diversity.

Do we want the meal to ‘stick’ to the student? Or is it a transfer to the household perhaps to the advantage of younger siblings? There is evidence on both.
There is a Double Burden of Malnutrition that changes how we look at the nutritional goals of programs

Overweight is a Global Problem
Prevalence of Diabetes among Persons Aged 20-79 in 2010 (percentage)

“close to 2 billion people overweight”
Prevalence of Diabetes among Persons Aged 20-79 in 2030 (Percentage)

“close to 2 billion people overweight”
Making schools more nutrition sensitive: a platform for health interventions

Schools can provide an environment for regular screening for malnutrition and referrals.

More broadly, schools can be the setting for scheduled health programs. Indeed, they can even be used as a venue for programs aimed at adolescents no longer enrolled as students.

An innovation in Peru used videos in schools to promote iron supplementation although the supplements were supplied at the health clinic. On average students obtained 9.3 pills over the study. Siblings not directly targeted also sought iron pills.

For anemic students, an average of only 10 100mg iron pills taken over three months improved average test scores by 0.4 standard deviations and increased grade progression by 11%.
Schools as a platform for iron supplementation

Schools can also provide periodic supplementation on site. For example, daily multivitamins provided to 4th grade students in China increased hemoglobin as well as math test scores. The students who were anemic responded the most.

While few studies report costs, those that do indicate that iron folate supplements costs between $0.1 and $1.14 per year. Management and disruption of class time can be minimal if the program is weekly and at meal time.

Some school health programs can be decentralized: In China schools provided information about anemia to principals and, for some, also provided a financial incentive to improve.

Both interventions led to improvements although the principals who received incentives achieved larger improvements.
Making schools more nutrition sensitive: behavior change for improved nutrition

Schools can discourage fatty, salty, or sugary foods including soft drinks. Making drinking water easily available reinforces the message. But it is harder to restrict vendors outside the premises.

There are innovative programs for school curricula aimed at increasing exercise as well as programs to reduce risky behavior among adolescents. Programs reviewed in the 2015 Lancet found integrated programs (aimed at exercise as well as food preferences) for primary aged children to be most effective.

More generally, parental education is a strong determinant of the nutritional status of the next generation. However, few countries have designed inventive curricula in schools for teaching future care-givers of child about nutrition and child stimulation.
Conclusion

Providing school meals is relatively easy: most middle income countries do this well. But proper implementation cannot be taken for granted.

Providing useful knowledge about proper nutrition is harder: it remains a challenge for many countries.

Providing behavioral change is harder still: programs that integrate improved diet diversity (and restrictions on access to unhealthy foods) with education and exercise are best started early.

There is extensive experience on programs for primary school aged children. However, more knowledge is needed on how to reach adolescents – both those in school and those no longer in school.

There is a different challenge for preschool children. This age group is particular responsive to nutrition programs as well as incentives for enrolment.