

# NUTRITIOUS FOOD PROCUREMENT IN CITIES IN LOW- AND MIDDLE-INCOME COUNTRIES

CASE STUDIES ON ADDIS ABABA STUDENTS FEEDING AGENCY AND PUNE SASSOON GENERAL HOSPITAL MEAL PROGRAMME



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## SUMMARY

Public food procurement refers to how governments purchase and provide food to defined populations. Institutional food procurement refers to food purchasing and provision by organisations like schools, hospitals, care homes, youth clubs, prisons, and workplaces. Local governments often manage public food procurement at these institutions, serving food to students, patients, employees, and their families. Nutritious food procurement (also commonly referred to as healthy food procurement) refers to designing food procurement to prioritise the purchase and provision of safe and nutritious food. Nutritious food procurement represents an opportunity to promote nutrition and improve the experience at that institution for a high volume of people, whilst reshaping the broader food system to be healthier and more sustainable. Policymakers are increasingly recognising institutional food procurement as an opportunity to address malnutrition. City governments often play a large role in managing and financing local institutions like schools, hospitals, and workplaces. As part of this role, city governments can use institutional food procurement to improve nutrition, particularly when doing so based on the sharing of experiences and best practices among different stakeholders in low- and middle-income countries (LMICs).

This paper presents two case studies from cities in LMIC settings to explore enabling factors for and barriers to nutritious food procurement: the city-run Students Feeding Agency in Addis Ababa, Ethiopia and Sassoon General Hospital Meal Programme in Pune, India. The Addis Ababa City Administration Students Feeding Agency aims to address undernutrition and improve educational outcomes by feeding all 351,000 public school students from preschool to eighth grade. The Agency also provides uniforms, books, and menstrual pads. The Sassoon General Hospital programme, run by a state-run hospital with 1,400 inpatient beds, provides medically tailored meals for all admitted patients. The programme helps support patient recovery and reduces pressure on families to bring outside food to hospitalised family members. Both programmes are important examples for their respective urban areas and beyond, as both Addis Ababa and Pune are increasingly facing challenges relating to rapid urbanisation and the double burden of malnutrition.

### KEY MESSAGES

- International and local stakeholders should collaborate on nutritious food procurement with a nutrition-sensitive approach. Doing so can lead to significant progress on nutrition, social protection, and sustainable development.
- Best practices in nutritious food procurement include dedicated governance, use of dietary guidelines in menu-planning, universal coverage, and inclusivity.
- Stakeholders should invest in institutional food safety; water, sanitation, and hygiene; and infrastructure for fresh foods.
- Cross-sector advocacy can create political buy-in for nutritious food procurement by highlighting win-win opportunities from the perspectives of institution beneficiaries and non-nutrition sectors.

## BACKGROUND AND OBJECTIVE

Malnutrition in all its forms is a major public health challenge and remains unacceptably common, especially in low- and middle-income countries (LMICs) (1). Most LMICs are experiencing the double burden of malnutrition: the coexistence of undernutrition along with overweight and obesity (2). While undernutrition and stunting are persisting issues, overweight and obesity are rising rapidly. Urbanisation and income growth, as well as climate change and migration, have spurred rapid changes in the food system (3). A shift of diets towards more highly processed foods and beverages, and a reduction in physical activity due to changing livelihoods, recreation practices, and other lifestyle factors, increase the burden of overweight and obesity and the risk for diet-related non-communicable diseases in many LMICs.

While these changes are happening across rural and urban areas, many of these trends affect urban areas more severely. For instance, one study on six African countries found that highly processed food makes up 31% of poor urban households' consumption, compared to 12% for rural households (4). To reduce the strain on LMICs' food systems and combat rising levels of malnutrition, novel food system solutions will be needed.

Public food procurement may be one option for addressing these issues. Such programmes prioritise feeding vulnerable people but have varied histories and mandates. Governments can use procurement to support and stabilise agricultural markets. For example, the governments of Bangladesh and India purchase rice and wheat at guaranteed prices, and provide these staples to poor households (5). The UN World Food Programme (WFP) Purchase for Progress programme supplements imported food aid with locally procured staples, thereby improving food security while supporting regional farmer livelihoods (6).

When institutions provide affordable and nutritious food, they can help improve nutrition for marginalised and vulnerable populations. Food provision can also amplify the benefits individuals receive from that institution's services. For example, school meal or school feeding programmes incentivise school attendance and supply essential nutrients and energy for students to learn (7). School feeding has been shown to increase enrolment of girls, who are often less likely to attend or complete school (8). School feeding acts as a safety net against climate disasters and conflict (9). School meals often improve undernutrition and micronutrient adequacy (10–12), but different studies have found both positive and negative effects on overweight and obesity (11,13). Many LMIC school meal programmes prioritise reducing poverty and supporting schooling, but there are opportunities to increase the focus on nutrition (14).

Nutritious food procurement can also address hospital malnutrition. Hospital care can cause or exacerbate malnutrition due to illness-related malnutrition (e.g., infection-related metabolic changes), loss of appetite and changes in taste, swallowing disorders, gastrointestinal symptoms like nausea, social isolation and mental illness, poor dental health, financial barriers, and timing issues with medical procedures or food getting cold by the time it reaches the patient (15). Hospital malnutrition increases hospital stay length, readmission likelihood, healthcare costs, and likelihood of death after hospitalisation (16,17). Patients may not want to eat hospital food if it is low quality, tastes bad, or lacks cultural appropriateness. Therefore, to support patient welfare, hospitals should not only perform nutrition screening but also provide affordable, acceptable, and nutritious food. Nutritious food in healthcare settings also supports noncommunicable disease prevention. The World Health Organization recommends providing low-sodium options in public hospitals, schools, workplaces, and nursing homes as a 'Best Buy' policy for preventing noncommunicable diseases (18).

Nutritious food procurement programmes also create parallel policy opportunities; in particular, they are often paired with policies that promote buying from local farmers (19). Local and regional purchasing can help support the livelihoods of local smallholder farmers and can also help shorten the supply chain used for food assistance, thus potentially increasing efficiency or speed (20). WFP Home Grown School Feeding (HGSF) programmes connect smallholder farms to schools as buyers of food. HGSF creates structured food demand, which can benefit farmers by granting them guaranteed access to a market, improved income stability, and potentially better food security.

Policymakers are increasingly recognising nutritious food procurement as an opportunity to address malnutrition. For instance, Indonesia has begun reforming its Rastra safety net rice procurement system to provide foods consistent with national dietary guidelines. Rastra has started providing eggs alongside rice, but it remains to be seen whether the programme will integrate other proteins or vegetables (21).

Public procurement accounts for 10 to 15% of global gross domestic product (GDP). This proportion is highest in low-income countries at 14.4% of GDP (22). Thus, public procurement entails considerable market-shaping power, including in the food sector. This is true not only at the national level but particularly for cities, which often manage or finance institutions such as hospitals, schools, and government workplaces and thus are often involved in food procurement. Playing a key role in overseeing these intuitions and their budgets gives local governments significant opportunities to serve vulnerable populations by bringing procurement in line with nutrition priorities – with a focus on ensuring sufficient quantity and quality of food provided, including nutrient content, dietary diversity, and food safety.

Therefore, urban governments are particularly well-positioned to innovate and facilitate participatory governance to include communities they serve (23,24). To ensure they can do this in the most efficient and effective manner, there is a need to share experiences and best practices related to safe and nutritious food procurement, especially among stakeholders in LMICs. This working paper helps contribute to this by presenting two qualitative case studies of programmes in Addis Ababa, Ethiopia and Pune, India and discussing both some of their challenges and factors that helped enable them to succeed.

## METHODOLOGY

The two qualitative case studies in Addis Ababa and Pune were identified through Food for Cities (an FAO-managed community of urban food policy practitioners) as examples of food system governance intersecting with nutritious food procurement in LMICs. Given the important role city governments might play in nutritious food procurement, the project then focused on two case studies from diverse urban settings.<sup>1</sup>

Semi-structured interviews assessed enabling factors, motivations, and pain points. Seven English-language interviews were conducted between January and April 2020 over Skype and WhatsApp with stakeholders chosen through GAIN's network involved with the Addis Ababa Students Feeding Agency, Enat Weg Charitable Association, Addis Ababa University, and the Sassoon General Hospital Meal Programme. Seven more interviews were conducted with food procurement experts and leaders, with a focus on learning about best practises from New York and Brazil. An analysis of peer-reviewed literature (via PubMed, Elsevier, and Google Scholar), grey literature, and news media generated more case study information as well as general background. This material was identified via searches using including the following terms and combinations thereof :

“nutritious/healthy/values based food procurement”, “institutional food”, “nutrition standards”, “foodservice,” “inclusive/green/sustainable public procurement”, “home grown school feeding”, “hospital meals”, “hospital malnutrition”, “patient satisfaction”, “workplace nutrition.”

The next sections discuss results of the two food procurement case studies in cities in LMICs.

## FINDINGS FROM THE ADDIS ABABA STUDENTS FEEDING AGENCY

The City Administration of Addis Ababa, Ethiopia's capital and largest city, launched a city government-run universal school breakfast and lunch programme in 2019. The administration passed legislation to convert it into the dedicated Students Feeding Agency in 2020 (25). The Students Feeding Agency will feed all public school students from preschool to eighth grade, about 351,000 students at 250 schools (80% of public school students) (26). The Agency aims to improve educational experiences by increasing students' energy and attendance, while

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<sup>1</sup> This Working Paper was adapted from a Duke University masters project available at: <https://dukespace.lib.duke.edu/dspace/handle/10161/21091>



reducing school dropout rates. The Agency will also provide uniforms, books, and menstrual pads (27). Table 1 summarises main points, enabling factors, and challenges.

**Table 1: Key points, enabling factors, challenges for the Students Feeding Agency**

Key Points
1. Universal coverage and gender-sensitive approach
2. Standardised menu across all schools
3. Students Feeding Agency hires mothers of students to purchase and prepare meals
Enabling Factors
1. A dedicated city agency provides multi-stakeholder coordination. Table 2 describes the roles and responsibilities of each stakeholder.
2. A prior NGO school feeding programme provided a model for success
3. High-level political champions advocated for the programme
Challenges
1. Inconsistent quality of school kitchens and canteens
2. Cost and infrastructure challenges with providing fresh foods

Though the Addis Ababa programme is unique in that it is run by a city government, Ethiopia has other existing school feeding efforts. An interviewee noted a perception that most donor energy has gone towards rural school feeding. In 1994, Ethiopia and WFP created a school feeding programme initially supplied with international in-kind food donations. In 2012, Ethiopia partnered with WFP and the UN Food and Agriculture Organisation (FAO) to start a Home-Grown School Feeding (HGSF) initiative to serve two regions, Oromia and the Southern Nations, Nationalities and People’s Region. In 2015, the Ethiopian government created an emergency HGSF programme for rural schools during droughts (28).

Prior to 2019, multiple Addis Ababa non-governmental organisations (NGOs) provided school meals for about 30,000 students. The most prominent example is the Enat Weg Charitable Association Smiling Children Initiative (EWCA), founded in 2015 by former Ethiopian First Lady Roman Tesfaye to serve a subset of primary schools. In 2019, they served 22,000 Addis Ababa students with a budget of 170,000 USD. It hired 1200 mothers to supply, cook, and serve food (29), a model that the Students Feeding Agency replicated. The EWCA programme receives funding from the China Foundation for Poverty Alleviation and corporate donors like Ethiopian Airlines and Ethio Telecom (30,31).

First Lady Tesfaye raised awareness about school feeding to the Addis Ababa Bureaus of Education, Women and Children’s Affairs, and Health; local organisations; and the media (29). She then gained support for City Administration school feeding from Mayor Takele Uma Banti. After the mayor took office in 2018, the outgoing First Lady and Prime Minister met with him to encourage him to prioritise school feeding. With the mayor’s support, the Education Bureau launched a programme in 2019 that fed 70,000 students at a cost of 169 million birr (USD 5.5 million) (32). In early 2020, the City Administration converted the Education Bureau programme into the Students Feeding Agency. The Agency coordinates multiple stakeholders, as outlined in Table 2.

**MOTIVATION: RESPONDING TO CHILD UNDERNUTRITION**

School feeding plays an important social protection role in Ethiopia generally and Addis Ababa specifically. Since the 1990s, Ethiopia achieved major rural poverty reduction and food security improvements. (33). Urban child stunting in Ethiopia is 25%, which is below the national average of 34% (33). Addis Ababa also has some of the highest rates of overweight and obesity in the country – 29% for women compared to the national average of 7.6% (34)

During this same time, income inequality has increased, especially in urban Ethiopia, and young people face high poverty and housing shortages. In 2011, UNICEF estimated that 12,000 children live on the street in Addis Ababa

(35). According to an interviewee, public school students are more likely than private school students to be poor, orphaned or with a single parent, or affected by HIV, disabilities, and/or migration. Addis Ababa's HIV prevalence is seven times higher than that in rural settings and twice as high in women as compared to men (36). Addis Ababa often experiences food price inflation and fluctuations. The Ethiopian food supply relies mainly on rain-fed agriculture, which makes it vulnerable to extreme weather, and lower crop yields have resulted in an unstable food supply. El Niño also caused extreme weather in 2015 to 2016, which exacerbated droughts (32).

School feeding also helps improve schools' ability to provide educational services. Addis Ababa stakeholders recognise that food insecurity leads students to perform poorly academically, repeat grades, be absent from school, or drop out entirely. In a state of hunger, children may stay at home and look for food or work. A common theme from stakeholder interviews was that teachers have seen their students faint due to lack of energy.

#### **UNIVERSAL COVERAGE AND GENDER-SENSITIVITY**

With an explicit mandate to cover girls equally (37), the Students Feeding Agency aims to improve the school experience by providing food and non-food products such as school supplies, uniforms, and sanitary pads. Poor access to sanitary pads, inadequate school bathroom cleanliness, and a lack of private bathrooms make it more likely for menstruating girls to stay at home or drop out of school (38); providing sanitary pads helps partially address this issue. With similar uniforms across schools, student socioeconomic status will likely be less visible, which may reduce poverty stigma and bullying. As part of broader improvements, the Addis Ababa Education Bureau is also repairing hundreds of schools to create cleaner classrooms, bathrooms, and kitchens. The Mayor's Office allocated 1 billion Birr (USD 29.5 million) for this construction and non-food student supplies.

The Students Feeding Agency provides universal coverage for grades 1 through 8 regardless of income, which helps reduce school absenteeism driven by poverty stigma. Students can feel ashamed of attending school when they lack food. One interviewee described children bringing empty lunch boxes to school to hide their poverty. Universal coverage helps reduce poverty stigma by increasing uniformity between students' meals (or previous lack of meals).

The Agency manages an annual budget of 1.2 billion Birr (USD 36.8 million) to feed 351,000 students every school day. The budget is based on a per-student allocation of 16 birr per day (USD 0.50/day), up from 14 Birr in 2019. The 2019 City Administration budget was 44.7 billion Birr (USD 1.37 billion), making school feeding about 3% of the city budget (39). The City Administration plans to link Agency funding to city tax policy to ensure predictable funding. Mayor Takele Uma will also seek donations from wealthy individuals and companies.

#### **STANDARDISED FOOD MENU**

The Students Feeding Agency aims to increase consistency across Addis Ababa schools. For the City Administration and EWCA programmes, the main priorities are addressing short-term hunger, maximising students served, using foods sourced from within Ethiopia, and providing foods that are culturally familiar and palatable. Breakfast includes bread, jam, and tea. Depending on the day, lunch includes injera (a flatbread and staple of the Ethiopian diet), rice, or bread plus sauces of potato, onion, lentil, pepper powder, pea powder, or egg.

The Students Feeding Agency procurement model is decentralised. Although all schools follow the same menu, no central body purchases food for all the schools. Instead, the Agency hires mothers of students at each school who act as teams to buy ingredients and prepare meals. The mothers purchase oil, wheat flour, sugar, and other ingredients from Ye-Shemachoch Maheber ('consumer association shops'), which are retail outlets run by the Ethiopian government. The government subsidises the sale of these goods, leading to lower prices than at other outlets (40). Consumer association shops are instructed to give priority to school feeding buyers, though they also sell to private consumers.

**Table 2: Addis Ababa School Feeding Stakeholder Roles**

<b>Students Feeding Agency</b>	<ul style="list-style-type: none"> <li>▪ Ensure programme continuity</li> <li>▪ Conduct programme monitoring in schools</li> <li>▪ Gather resources to execute school feeding</li> <li>▪ Create school food menus and ensure schools are providing food in accordance with the menu</li> <li>▪ Contract associations or individuals for foodservice provision</li> <li>▪ Evaluate student learning, behaviour, and development</li> </ul>
<b>Education Bureau</b>	<ul style="list-style-type: none"> <li>▪ Share student information</li> <li>▪ Monitor daily school feeding provision through school human resources, such as school principals</li> <li>▪ Distribute school supplies and uniforms</li> <li>▪ Ensure services consider the needs of students with disabilities</li> <li>▪ Improve availability of clean kitchens and cafeterias in schools</li> </ul>
<b>Finance Bureau</b>	<ul style="list-style-type: none"> <li>▪ Issue directives on school feeding and procurement of uniforms and school supplies</li> <li>▪ Ensure appropriate budget use and reliable financial procedures</li> <li>▪ Provide prompt financial consultation</li> </ul>
<b>Health Bureau</b>	<ul style="list-style-type: none"> <li>▪ Check that medical examinations conducted for cooks are standardised and/or provide examinations for cooks</li> <li>▪ Raise awareness on food preparation, serving, and hygiene for cooks and other stakeholders involved in food handling</li> <li>▪ Strengthen the relationship between the Students Feeding Agency and Addis Ababa sub-city health offices</li> </ul>
<b>Women and Children Affairs Bureau</b>	<ul style="list-style-type: none"> <li>▪ Provide support to train parents to be food preparers, including vocational training on catering</li> <li>▪ Organise and certify foodservice providers (i.e. teams of mothers)</li> </ul>
<b>Teams of mothers</b>	<ul style="list-style-type: none"> <li>▪ Food purchase and meal preparation</li> <li>▪ Training mothers on safe food handling</li> </ul>
<b>Food and Pharmaceutical Controlling Authority</b>	<ul style="list-style-type: none"> <li>▪ Inspect and correct quality standards in kitchens, cafeterias, and warehouses</li> <li>▪ Monitor quality and safety of food preparation supplies</li> <li>▪ Check on cooks' medical examination certifications</li> <li>▪ Carry out food safety inspections</li> </ul>
<b>Trade Bureau</b>	<ul style="list-style-type: none"> <li>▪ Create conditions that enable market links between food preparers and wholesalers</li> </ul>
<b>Consumer Association Shops</b>	<ul style="list-style-type: none"> <li>▪ Food wholesaling, including to school meal providers</li> </ul>
<b>Solid Waste Management Agency</b>	<ul style="list-style-type: none"> <li>▪ Coordinate disposal of leftover food and solid waste</li> <li>▪ Raise awareness about solid waste disposal and sewage among stakeholders involved in school feeding</li> </ul>
<b>Water and Sewage Authority</b>	<ul style="list-style-type: none"> <li>▪ Provide water for students</li> <li>▪ Ensure adequate sewage disposal</li> </ul>
<b>Student-Parent Committees</b>	<ul style="list-style-type: none"> <li>▪ Check for food quality</li> <li>▪ Contribute to menu creation</li> </ul>
<b>Addis Ababa University Researchers</b>	<ul style="list-style-type: none"> <li>▪ Programme evaluation</li> </ul>

## EVALUATION AND IMPROVEMENT

A study conducted by the consulting firm Et Alim Trading helped demonstrate the positive impact of EWCA's school feeding programme. This study found that at the 11 schools sampled, the number of student dropouts reduced from 79 in 2013 to 19 in 2018 – a 76% decrease in dropouts. Student absenteeism decreased by 59%. Student academic scores improved by 14% between 2013 and 2018, and school enrolment increased by 9%. The



study also found an average 22% increase in body weight and a 4% increase in height among participating students compared to control group students (41). These are promising findings since Ethiopia faces a high prevalence of underweight in children: the national underweight rates for girls and boys aged 5 to 19 are 22% and 36%, respectively (33).

The evaluation also pointed out, however, that the ECWA had duplicative monitoring and evaluation efforts. EWCA, Addis Ababa Education Bureau, and Addis Ababa Women and Children's Affairs Bureau all contributed to monitoring and evaluation. However, according to the evaluators, those efforts were not well-coordinated. These coordination issues were compounded by a lack of a digital database for student health data (42). Recognising these issues as well as the importance of this earlier evaluation in ensuring continued political support, the Students Feeding Agency plans to collaborate with Addis Ababa University researchers to conduct an evaluation of their programme.

## **ENABLING FACTORS: ADDIS ABABA STUDENTS FEEDING AGENCY**

### **DEDICATED GOVERNANCE, MULTISTAKEHOLDER COORDINATION**

Following the successful creation of the Students Feeding Agency, Meti Tamrat, Director of the Students Feeding Agency, now leads a staff of 10. The Students Feeding Agency is led by a board that includes leaders of NGO school feeding programmes who have influenced programme design (such as Frealem Shibabaw), researchers from Addis Ababa University, and local artists who advocate for the Agency. The Office of the Mayor oversees Students Feeding Agency activities. As a dedicated governing body, the Agency acts as a multi-stakeholder coordinator for City Administration departments and existing school feeding organisations. This enables the Agency to provide unified management, sharing of best practices, and common standards for food provided by the Agency itself, or by NGOs or businesses it contracts.

### **NGO PRECURSORS ENABLED HIGH-LEVEL ADVOCACY**

Before 2019, the Addis Ababa Education Bureau had faced challenges in convincing the City Administration to fund school feeding. However, the Mayor's support, NGO leader advocacy, and media coverage increased acceptance among high-level officials for government spending on school feeding. For example, Frealem Shibabaw is the director of the Ethiopian School Meal Initiative NGO and a member of the Students Feeding Agency Board. Her advocacy on school nutrition to the Ministry of Education helped give rise to the Ethiopian government's Seqota Declaration (a multi-year plan to end chronic malnutrition in the country). Shibabaw innovated on school feeding by creating a programme that serves 3,000 students by keeping cows at schools to provide milk. The schools sell surplus milk to the local community and use the resulting revenue to cover other school expenses (43). In addition, Addis Ababa parents have advocated strongly for school feeding, and families have expressed positive feedback about the new City Administration programme.

Ethiopia's existing national school feeding programmes and commitments to improve nutrition created an enabling environment for the Students Feeding Agency. The Ethiopian government is developing a strategy to expand meals to all primary school students nationally. To this end, the Students Feeding Agency hopes to serve as a replicable model. The Agency is navigating the transition from NGO-led to government-managed school feeding. The Agency is creating a framework for formal partnerships with school feeding NGOs that meet the minimum meal standards. As an example of such a partnership, the City Administration devoted some of its school feeding budget to the EWCA programme in 2019.

## INVOLVEMENT OF BENEFICIARIES, ESPECIALLY MOTHERS



Figure 1: A mother prepares to cook at an Addis Ababa school. ©Belayneh Zelelew Negash.

The Students Feeding Agency includes beneficiaries in synergistic ways, particularly by employing students' mothers. In 2019, the City Administration school feeding programme hired 10,000 mothers. One mother is responsible for preparing food for 30 to 50 children. Hiring previously unemployed women improves their livelihoods and therefore increases household food security through both the mother and the student receiving school meals. The Addis Ababa Health Bureau provides training on safe food handling to at least one or two mothers per school, who then train other mothers on the cooking team. Mothers purchase ingredients and are reimbursed by bank transfer from the Addis Ababa Education Bureau. They then cook inside school kitchens, as shown in Figure 1. According to interviewees, hiring mothers incentivises

good food safety because the mothers serve food to their own children. Students and parents also participate through committees that provide oversight and influence menu creation.

## CHALLENGES FOR ADDIS ABABA SCHOOL FEEDING

Despite these successes, the Addis Ababa programme also faces challenges. According to interviewees, many Addis Ababa public schools lack adequate kitchen and canteen facilities to enable school feeding. The issues include unreliable electricity, lack of space, and lack of chairs. This limits food preparation efficiency, creates food safety risks, and makes it difficult to provide a welcoming space for students. Therefore, the City Administration began renovating schools with the goal that by the end of 2020, all primary schools will have a standardised kitchen and canteen. Furthermore, the World Bank is expected to contribute USD 25 million towards the Addis Ababa school feeding programme, some of which will fund school kitchen construction and renovation, according to an interview.



Figure 2: Food storage at an Addis Ababa school ©Belayneh Zelelew Negash.

Addis Ababa school feeding programmes experience several common challenges in providing nutritious, diverse, and fresh foods. These include the following:

1. **High cost of fresh foods**, especially dairy.
2. **A lack of safe food storage infrastructure at schools, such as refrigeration.** Food storage may involve using the floor or improvised areas, as seen in Figure 2.
3. **Lack of time in the mothers' workflow.** The women who cook for the students usually procure ingredients during the weekend due to insufficient time on weekdays, when they need to be cooking. It can be challenging to purchase fresh foods during the weekend because the foods may spoil before the school week ends.
4. **Religious preferences for plant-based diets** are a barrier to animal-source food consumption.

A key priority for the Students Feeding Agency is to add more diversified and nutritious foods. Some nutritional diversity comes from the sauce typically served with the injera, which is made with chickpeas and lentils, as well

as serving egg once a week. The Agency plans to explore adding milk and eggs as regular menu items. The Agency is also exploring how to add fruits and vegetables through school gardens.

However, if this were tried, there would need to be well thought-out school garden intervention design. Previously, EWCA has not had success with school gardens due in part to limited space within the city. Another interviewee expressed food safety concerns around poorly managed gardens, mentioning that some stakeholders see packaged foods as being safer than fresh foods, especially when a lack of clean water prevents safe food preparation. Ethiopia’s national school feeding shares similar fresh food provision challenges. The national HGSP programme collaborated with WFP’s Purchase for Progress and Purchase from Africans for Africa programmes to link schools and local farmers. Although the programme intended to serve fresh fruits and vegetables, the main source of dietary diversity came from cereals and pulses. Meanwhile, some fresh produce is available through school gardens, but this is not consistent or systematic. Nonetheless, the national HGSP programme recognises that it is important to provide diversified meals (28).

One interviewee expressed that Addis Ababa would be a good place to develop urban farming to support public food procurement. They suggested that demand for nutritious food exists, but there needs to be more donor and NGO support, stating, “They know there is a need, but they might not think about it because of budget limitation. We can do it, it’s not a problem. It’s poverty driven malnutrition, nothing else.”

### FINDINGS FROM THE SASSOON GENERAL HOSPITAL MEAL PROGRAMME

In 2013, Sassoon General Hospital in Pune, India created a programme that provides breakfast and evening meals for all admitted patients, or up to 1,400 patients (44). Maharashtra State, where Pune is located, runs Sassoon General Hospital. This programme is important because the state-run hospital serves mostly poor patients. For many poor hospitalised patients, their family members are expected to pay out-of-pocket to provide medicines and meals for the patient, which has led some Indian hospitals like Sassoon to expand free meal services (45). Providing free patient meals helps to reduce the cost burden and responsibility placed on families to feed their hospitalised family members. While many high-income country hospitals and private Indian hospitals, such as Ruby Hall Hospital in Pune (46), have well-developed meal programmes, free meal provision is less consistent among state-run hospitals, due in part to their other financial and logistical challenges (47). Table 3 summarises the main aspects of the programme.

**Table 3: Key points, enabling factors, challenges for the Sassoon Meal Programme**

<b>Key points</b>
1. Medically tailored meals for all admitted inpatients at a public hospital
2. Meal provision reduces strain on patient families to bring food to the hospital
<b>Enabling Factors</b>
1. Highly motivated NGO and philanthropic partners
2. Sufficient infrastructure, including kitchen renovations, new dishwasher, and meal carts
3. Nutritionist involvement in menu creation
<b>Challenges</b>
1. Monitoring and evaluation
2. Increasing medical tailoring
3. Maintaining government buy-in

### MOTIVATION: IMPROVING PATIENT MEAL QUALITY

Pune’s rapid urbanisation has been associated with an increasing wealth gap across castes. Pune experiences both undernutrition, with 22% of children experiencing stunting (though lower than India’s national average of 38%), and 30% of women being overweight or obese (higher than the national average of 21%) (48). Among the different types of nutrition interventions needed to deal with these issues, hospital food is important not only

due to its direct effect on nutrition: patients who are well-nourished also tend to recover faster than those who are malnourished (49). In turn, faster patient recovery helps alleviate strain on state-run hospitals that serve mostly poor patients. According to a stakeholder interview, while some Indian government-run hospitals provide patient food, the food is often of substandard quantity, quality, safety, or taste. Indeed, evidence from one Indian hospital suggests that, before receiving a food safety training, food-handling staff were unaware of foodborne illness transmission mechanisms, adequate cooking, barriers for prevention, and use of safe water (50). The Sassoon programme thus aims to provide a more stable, safe, and nutritious source of food.

At the same time, the programme is mindful of overnutrition because Sassoon General Hospital sees numerous patients for the often diet-related conditions of heart attacks, joint replacements, and kidney and liver failure. Indeed, both undernutrition and overnutrition can weaken immune systems. Short-term treatment and meal provision do not resolve underlying chronic conditions like obesity, high blood pressure, or diabetes. However, these chronic conditions heighten the need to provide medically appropriate food so as to not exacerbate these conditions further.

According to an interviewee, Sassoon's programme has been well-received by healthcare providers, who observe patients recover and leave the hospital faster. The programme also reduces pressure on patients' families to bring food from outside the hospital. The same interviewee noted that Indian people are very family-oriented when it comes to health issues. For example, there is literature suggesting that in India, family involvement in hospital psychiatric care is high, with expectations that family members will help with care tasks like hygiene and medication management. Women family members are often expected to cook meals for the patient (51). In addition, poorer patients with diabetes who receive care at Indian public hospitals are more likely to face catastrophic expenses relating to food, transportation, and accommodations compared to wealthier patients seen at private hospitals (52). Free meal provision helps mitigate some of these family burdens. Sassoon General Hospital also provides subsidised meals for relatives of admitted patients, including undernourished children who are at the hospital with their parents (53).

#### **FUNDING: STATE GOVERNMENT AND PHILANTHROPIC CONTRIBUTIONS**

Sassoon General Hospital is run by the government of Maharashtra state, where Pune is located, and its meal programme receives state and philanthropic funding. The programme is funded by donations from the Ganapathi Trust, a local temple trust, and the Society of Friends of Sassoon Hospital, a charitable trust started by the hospital's social workers. Prior to the Ganapathi Trust's involvement, the government spent 30 to 40 million Rupees per year (USD 397,000 – 529,000) on patient meal provision at Sassoon General Hospital. The government now spends about 36 to 42 million Rupees per year on the programme (USD 487,000 – 568,000). At the time the meal programme was founded, the Ganapathi Trust planned to allocate 100 million Rupees per year (USD 1.3 million) (54). Construction of the new kitchen cost 12.5 million Rupees (USD 175,000) (55). Hence, Sassoon benefitted from a higher combined budget thanks to state government and philanthropic funding.

#### **ENABLING FACTORS: SASSOON HOSPITAL'S MEAL PROGRAMME**

##### **STRONG NGO AND PHILANTHROPIC MOTIVATION**

The Ganapathi Trust and Society of Friends of Sassoon Hospital both have an established history of charitable food programmes with high community acceptance. They have helped drive partnerships with Pune's healthcare facilities and programmes serving orphans. Ganapathi Trust procures ingredients and prepares meals at the hospital. Some food is sourced from local farmers connected to the Trust. The Society of Friends of Sassoon Hospital also created the Shreevatsa childcare centre and orphanage, which is next to the Sassoon General Hospital. The centre provides food and nutritional supplements to children with disabilities and life-threatening illnesses (56). The Society also runs an outpatient nutrition clinic attached to Sassoon General Hospital, where it provides nutrition supplements for those affected by diseases like HIV and tuberculosis (57).

## **NUTRITIONISTS CREATE MENU OF MEDICALLY TAILORED MEALS**

The inclusion of nutritionists in menu creation for the Sassoon General Hospital Meal Programme helps with medical tailoring of food for specific illnesses, which helps make the programme more attractive and valuable for healthcare providers and the healthcare system. According to an interviewee, the hospital tailors meals for patients with high blood pressure (low sodium), diabetes (low sugar, high protein), kidney disease (low sodium, potassium, and protein), or liver disease (low fat, sugar, and salt). The hospital's nutritionists make recommendations to set the menu (55). Rotis (local flatbreads) are a main staple of the meals provided through the programme. The meals also include rice, pulses, vegetables, and seasonally available local fruits (58). Patients receive milk, buttermilk, and tea with their meals. Patients who need a high-protein diet also receive eggs.

## **INVESTMENTS IN FOOD SAFETY INFRASTRUCTURE**

The Sassoon meal programme made key investments in food safety and water, sanitation, and hygiene, such as kitchen renovation. The kitchen includes a mechanised roti maker that can prepare 1,000 rotis an hour (see Figure 3). The Ganapathi Trust also donated funding for a dishwasher and 36 trolleys to deliver meals to patient rooms in the hospital wards (44). These investments enable the programme to serve safe and nutritious food to a large number of patients.

## **CHALLENGES FOR THE SASSOON GENERAL HOSPITAL MEAL PROGRAMME**

The Sassoon meal programme also faces challenges. It is unclear if there is systematic monitoring and evaluation of the programme, beyond the minimal monitoring needed to carry out meal provision. There is anecdotal evidence of improvements to patient experience and that reducing responsibility for families to provide food for hospitalised family members reduces their stress and indirectly improves their economic and food security. However, there has not been any measurement of household food security changes in response to the hospital meal provision programme, making it difficult to verify such effects.

This lack of monitoring or evaluation will need to be addressed to improve programme implementation in the long term. One interviewee suggested that a promising option for doing so was conducting comparisons between Sassoon and other hospitals without similar meal programmes. Such studies could assess outcomes such as nutrient intake, patient satisfaction, recovery times, and disease-specific health metrics such as blood pressure or blood sugar control. Indeed, studies have examined how hospital food can affect patient satisfaction and in-hospital nutritional outcomes. In Bangladesh, a study found that poor food quality negatively influences patient satisfaction, especially due to bad odours, bugs in food, and poor menus (59). A study in an Indian private hospital found that cancer patients who received high-quality patient-centred meals experienced better weight gain, protein intake, and patient satisfaction (60). A review of studies found that a variety of nutritious food procurement interventions can help increase food intake for patients. Doing so also reduces food waste and associated economic losses for the hospital (61). Such studies could be replicated at Sassoon to assess how tasty, culturally relevant, nutritious, and medically tailored meals affect patient experience. One interviewee expressed that Sassoon's meals could be more health-oriented, with better medical tailoring based on diet-related conditions.

In addition, one stakeholder raised a concern that the Indian government is increasingly expecting NGOs, philanthropists, and corporate social responsibility initiatives to fund or conduct hospital food procurement. Therefore, it will be important to encourage the Pune and Maharashtra governments to continue to invest in initiatives like the Sassoon meal programme. In 2018, Pune and Birmingham, England started a joint Smart Nutrition City Initiative with support from the UK-based Food Foundation. This partnership facilitates city-to-city learning on urban food systems and could be a channel to share best practices on hospital meal programmes and expand nutritious food procurement across Pune institutions.

## CONCLUSION

This working paper discussed two case studies of public food procurement in cities in LMICs. In the Addis Ababa Students Feeding Agency and Pune Sassoon General Hospital Meal Programme case studies, a combination of government, private-sector stakeholders, NGOs, and community members contributed to urban food procurement programmes. These programmes demonstrate how such coalitions can serve vulnerable individuals through institutional food procurement. In both cases, cross-sector advocacy helped give rise to these programmes. The Addis Ababa Students Feeding Agency relied on the promise of improving education outcomes and providing new work opportunities for women. The Sassoon General Hospital Meal Programme appealed to the healthcare sector by using free meals to help patients recover and reduce strain on the hospital and on patients' families. The programmes also show how food safety infrastructure investments underpin nutritious food procurement, and both programmes have an element of universal coverage and standardised menus featuring culturally relevant foods.

The Addis Ababa Students Feeding Agency is an example of a dedicated food procurement governing body that coordinates multiple stakeholders at the city level. Addis Ababa also demonstrates gender-sensitive approaches. First, the Agency's mandate is to cover girls equally, and it also provides non-food supplies to support female schooling, particularly sanitary pads. Second, the Agency hires and trains women to procure and prepare food, creating an income generation mechanism for previously unemployed women. The Sassoon General Hospital Meal Programme demonstrates how medically tailored meals designed by nutritionists can address both under- and overnutrition for patients. The Sassoon programme also demonstrates strong NGO and philanthropic involvement. Ultimately, both programmes attempt to address malnutrition in the context of poverty and inequality associated with rapid urbanisation. However, both still face challenges. For example, the Students Feeding Agency intends to provide more nutritious fresh foods, including dairy, eggs, fruits, and vegetables, but this will be difficult due to higher costs and additional food safety considerations.

## AREAS FOR FURTHER DEVELOPMENT

There are several directions in which food procurement programmes can be advanced. A unified framework, guidance document, or South-South cooperation process on public food procurement across multiple institutions, including those in urban areas, could be a useful tool to further these types of programmes and add more of a nutrition focus to such activities in LMICs. Drawing on their extensive experience on school feeding, FAO and WFP have developed the Home-Grown School Feeding Resource Framework. However, there is comparatively less institution-specific guidance on public food procurement for the broader range of organisations in which institutional food procurement takes place. Such a public food procurement guide would need to integrate LMIC stakeholder voices in a participatory manner, to appropriately account for assets and challenges in LMIC contexts. Annex 1 highlights guidance documents relating to food procurement, urban food policy, and LMICs.

As discussed in Box 1, New York City and Brazil both offer examples of adapting and replicating nutritious food procurement across institutions. The key lessons from New York City and Brazil mirror some of those from Addis Ababa and Pune.

Nutritious food procurement also offers opportunities for private-sector business development and capacity-building. In some cities, urban governments contract institutional food procurement to dedicated foodservice companies or local businesses. New York City's public food procurement occurs through a mix of government-run entities and private food service companies (67). Ghana and Togo's national school feeding programmes contract out meal provision to catering businesses, some of which are managed by local women (68). Beyond foodservice, the private sector has a role in building food aggregation and processing capacity. Doing so could further enable nutritious food procurement.



## **BOX 1: FOOD PROCUREMENT LESSONS FROM NEW YORK AND BRAZIL**

New York City serves 260 million meals a year at schools, childcare centres, after-school programmes, public hospitals, senior centres, and jails. Brazil's National School Feeding Programme (PNAE) guarantees all 42.6 million public school students free school meals (62). PNAE delegates programme administration to state and municipal School Feeding Committees. The Brazilian Institutional Food Purchase Programme (PAA) focuses on local procurement to provide food at institutions including hospitals, day-care centres, shelter homes, food banks, prisons, military bases, and universities (63).

**Nutrition standards:** The New York City government created city-wide food standards for all public food procurement in 2008 to prevent diet-related disease (64). These standards in some cases exceed the national Dietary Guidelines for Americans, as is the case for limits on foods with trans-fats (65). The standards apply to cafeteria meals, vending machines, meetings, events, and hospitalised patient meals. Patient meals are required to be tailored to those with special nutrition needs, such as children or seniors. In 2009, Brazil established school meal nutrition standards. For both New York and Brazil, their standards require fruit and vegetable options and limit calories, sugar (including sugary drinks), salt, and fat.

**Dedicated food system governance with multi-stakeholder coordination and participation:** A dedicated authority can provide stronger coordination and space for input from civil society and businesses. The New York City Mayor's Office of Food Policy convenes a Food Policy Task Force composed of 10 food-procuring city agencies, a City Council representative, and civil society (64). In Brazil, the Council of Food and Nutrition Security was a body that, before being dissolved in 2019, convened government and civil society members to advise the president and facilitate collaboration. For instance, inclusion of the Ministry of the Economy made economic development via local food purchasing a key motivator for school feeding. At the local level, Brazil created local school nutrition councils to contribute to oversight and menu creation (66). These councils include parents, students, teachers, community members, and local government. Participatory governance helps make programme delivery appropriate for the local population.

**Universal coverage:** Both New York City and Brazil have universal public school meal coverage. This is because, despite its usefulness for maximising resource use, programme targeting can exacerbate poverty stigma and mistreatment for individuals who are visibly receiving social assistance like school meals. Universal coverage also helps articulate food as a human right and a popular cultural expectation. Brazil aligned its school feeding with its 2003 Zero Hunger strategy and 2010 National Policy for Food and Nutritional Security (62).

**Cross-sector advocacy:** Cross-sector advocacy (such as with the education, healthcare, agriculture, environment, and economic development sectors) can build broader political support. For example, a focus on smallholder farmers can bring agriculture and economic development stakeholders to support nutritious food procurement. Brazil's PNAE set a 30% quota for local purchasing, helping to drive public-sector demand for locally produced nutritious food. Under its OneNYC 2050 sustainability plan, New York will implement the Good Food Purchasing Program to make environmental sustainability, labour, local economies, and animal welfare part of food procurement criteria in addition to nutrition (64).

Indeed, consideration of entire value chains is necessary to anticipate how public food procurement affects city, regional, and global food systems. It would also be important to understand how food procurement interacts with government agricultural market controls, such as subsidised staple production in Ethiopia and other countries. There is also a need for more research on how participation in public food procurement affects farmers' and other food system workers' livelihoods and nutrition security. More research is also needed on how public food procurement affects production, market development, availability, prices, and demand for food in the private market. There is evidence from Brazil and other case studies that school feeding can decrease non-nutritious food consumption outside of school (69). Hence, nutritious food procurement can potentially shift consumption patterns even beyond the specific institution where it is implemented.

Food procurement programmes need to be protected from market shocks and disasters. Contract design, capacity-building, and insurance for public food procurement are also areas for further learning (68). Information transparency and forecast-based financing can help stakeholders adjust to unpredictable markets (70). The ideal modalities are dependent on local context but are important for maximising programme quality and insulating against market shocks. In response to the 2020 Covid-19 pandemic, national and local-level food system actors have adapted public procurement programmes to social distancing constraints. The Addis Ababa Students Feeding Agency, for example, is coordinating with food banks to provide take-home rations to students, given school closures. New York City scaled up home food deliveries and take-home rations for students instead of cafeteria meals (71). Hence, the Covid-19 pandemic has prompted creation of novel food provision models that repurpose existing food procurement infrastructure.

Local agriculture can support nutritious food procurement through shortening supply chains, and providing fresh produce and animal products (72) – an option that Addis Ababa Students Feeding Agency is exploring. Community gardens and farms at institutions (e.g., school or hospital gardens) are one such way to pair agriculture and food procurement. However, especially in urban settings, careful oversight and technical assistance are vital to avoid unintended effects, such as unsafe food and water due to pollution or pesticide contamination (73).

Food procurement programmes also need to be put in the context of other food assistance and social safety net programmes. There are benefits and drawbacks of institutional food procurement as compared to other types of food assistance, such as in-kind food distribution or cash transfer programming (74,75). A multi-stakeholder food system coalition could be used to determine which interventions are the most appropriate for a given context.

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## ANNEX 1 - GUIDES AND POLICY DOCUMENTS ON FOOD SYSTEMS AND PUBLIC FOOD PROCUREMENT

	Specific to urban food policy	Global context	Specific to LMIC context	Discusses food procurement	Types of institutions	Technical guidance on procurement	Summary notes
<a href="#">GAIN “Strengthening governance for better nutrition in cities”</a>	Yes	Yes	No	No	N/A	Yes	Describes general framework for urban multi-stakeholder governance to develop and implement urban food policies
<a href="#">GAIN-MUFPP-RUAF “A menu of actions to shape urban food environments for improved nutrition”</a>	Yes	Yes	Yes	Yes	Schools, hospitals	No	Describes wide range of case studies and potential urban food policy actions
<a href="#">MUFPP Monitoring Framework, Indicator 38 on public food procurement</a>	Yes	Yes	No	No	All public institutions	Yes – provides tools to measure good food purchasing	One of many documents proposing some guidance on how to measure MUFPP commitments
<a href="#">FAO “Strengthening Sector Policies for Better Food Security and Nutrition Results: Public Food Procurement”</a>	No, but discusses local/regional multisectoral governance	Yes	Yes	Yes	All public institutions	Yes	Provides a high-level technical guide to creating public food procurement policies, with inclusion of legal instruments for procurement
<a href="#">FAO/WFP “Home Grown School Feeding Resource Framework”</a>	No, but discusses decentralised systems	Yes	Yes	Yes	Schools	Yes	Provides technical guidance on home grown school feeding, with case studies pulled mainly from African countries
<a href="#">EAT Shifting Urban Diets (forthcoming) and C40 Good Food Cities Declaration</a>	Yes	Yes	No	Maybe	Likely all public institutions and private sector	No	EAT Forum encourages food procurement as part of achieving sustainable diets; included in C40 Good Food Cities Declaration. The newly launched Shifting Urban Diets project will focus on Copenhagen.

	Specific to urban food policy	Global context	Specific to LMIC context	Discusses food procurement	Types of institutions	Technical guidance on procurement	Summary notes
<b>Good Food Purchasing Program</b> - <a href="#">Report on NYC</a>	Yes	No – US only	No	Yes	All public institutions	Yes (if city participates in GFPP)	Assists US city governments and food policy councils with implementing public food procurement according to values-based guidelines
<b>Health Care Without Harm</b> – <a href="#">Healthy Food in Health Care programme</a>	No, but focuses on local and regional hospital systems	Yes	No	Yes	Hospitals and clinics	Yes	HCWH assists North American and European hospitals on healthy/sustainable food procurement
<b>Soil Association</b> <a href="#">Food for Life</a>	No, but sometimes focuses on single institutions like hospitals	No – UK only	No	Yes	Hospitals, schools, nurseries, care homes	Yes; technical guidance available for partner organisations	Food for Life assists a variety of UK-based institutions to carry out healthy/sustainable food procurement
<b>UNSCN</b> <a href="#">Urban-Rural Linkages for Nutrition</a> and <b>UN Environment</b> <a href="#">Urban Rural Linkages Guiding Principles</a>	Yes	Yes	Yes	No – only briefly discusses Brazil	N/A	No	Describes proposed urban-rural actions to improve nutrition, with brief discussion of food procurement.