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# URBAN CHILDREN AND MALNUTRITION

2021

Global Alliance – Cities 4 Children
Research Series: Cities for Children and Youth

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# SUMMARY

This evidence into action brief summarises the state of research on the topic of urban children and malnutrition, and proposes ideas for action.

Child malnutrition is the result of poor health, inadequate diets, suboptimal caregiving practices and unsanitary environments. While on average urban children are less likely to suffer from malnutrition than rural children, data shows that the opposite is true for urban children living in poverty. In high-density low-income neighbourhoods, inadequate housing and infrastructure, limited access to basic services and exposure to environmental hazards are major factors that, combined with low and irregular earnings, contribute to food insecurity and malnutrition. Practical action needs to consider and address these context-specific multiple challenges. NGOs can contribute to the successful design and delivery of interventions by supporting the capacity of grassroots organisations of the urban poor and local governments and in so doing ensure that initiatives have the long-term horizon essential to achieve change. This includes:

- Collecting and analysing data reflecting household, settlement and city-level circumstances, along with local beliefs, to identify community needs and priorities and inform effective and preventative responses to malnutrition.
- Ensuring that nutritional interventions are context-specific and include understanding and supporting the role of informal markets and vendors on which the urban poor rely.
- Ensuring that urban caregivers' time poverty is addressed, including through the provision of childcare facilities.
- Integrating environmental health in any action plan, including water and sanitation, solid waste management and surface drainage, with special attention to emerging climate-related environmental hazards.

# CONTENTS



# ACRONYMS

| | |
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| LMIC | Low- and middle-income countries |
| NGO | Non-governmental organisation |
| WASH | Water, sanitation and hygiene |

# 1. INTRODUCTION

Achieving the second Sustainable Development Goal of ending hunger, food insecurity and all forms of malnutrition by 2030 is an immense challenge. After decades of decline, global hunger is increasing. For over three years now the number of chronically undernourished people has grown, affecting 821 million, while about 2 billion people experience moderate or severe food insecurity. Nearly 144 million children under the age of five are stunted, and 47 million are threatened by wasting, a function of both food security and other individual, household and community factors which will be discussed in this brief. And these figures do not reflect the devastating impacts of the Covid-19 pandemic on access to nutritious food, which may increase the number of undernourished people to between 83 and 132 million.[1] At the same time, overweight and obesity continue to rise in all regions. Although primarily an adult problem, the numbers now include 38 million children.[2]

With the urban transition, malnutrition increasingly affects urban areas: one in three stunted children is urban, and overweight and obesity affect mostly urban residents. According to the United Nations Food and Agriculture Organization (FAO), food and nutrition security is achieved when 'all people, at all times, have physical and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life'.[3] This is a wider agenda than achieving zero hunger, requiring food security to be integrated into poverty reduction efforts along with gender inequalities and social exclusion. This brief explores the factors that come into play when this agenda is addressed in urban areas, and then looks at the implications for children and for the practices that best address child malnutrition in the context of urban poverty.

# 2. LINKING URBAN POVERTY AND FOOD AND NUTRITION INSECURITY

The urban proportion of the world's population is expected to reach two-thirds by mid-century, with virtually all growth in low- and lower-middle income nations in Asia and Africa.[4] Economic development and institutional capacity here are generally weak, and urban growth has been accompanied by the rapid expansion of unplanned neighbourhoods lacking basic infrastructure, services and adequate housing, with high concentrations of people in poverty. Inadequate incomes, unhygienic environments and food insecurity in poor urban areas all serve to exacerbate children's malnutrition. The numbers living in such neighbourhoods are projected to reach 2 billion by 2030.[5] This urban transition interacts with the nutrition transition[6] and the emerging double burden of malnutrition, with

**One in three stunted children lives in an urban area.**

growing numbers of overweight adults often in the same household as underweight and stunted children, especially among low-income urban groups.[7]

Challenges to the food security of the urban poor are considerable, in many cases not directly related to lack of food but rather to specific characteristics of urban poverty, and the vulnerability of the poor to sudden shocks that exacerbate long-term stresses. Food insecurity was the most severe cumulative impact of the 2008–2011 financial crisis on low-income groups.[8] The Covid-19 crisis is also resulting in steep declines in household incomes, changes in the availability and affordability of nutritious foods, and predicted increases in child malnutrition.[9] Climate change and disasters also have a substantial, growing impact. Interventions and policies must recognise that food insecurity and child malnutrition are highly variable, affected by external events as well as intrahousehold dynamics.

## 2.1 INCOME POVERTY AND FOOD INSECURITY

Lack of sufficient, regular incomes is at the root of urban food insecurity. For urban residents, tied to a cash economy, any decline in incomes or increase in food prices can have catastrophic consequences. Most of the urban poor rely on informal-sector labour with irregular, low earnings.[10] Food represents an extremely large proportion of their total budgets. Research in 11 Southern African cities shows that the poorer the household, the higher the expenditure on food. Four out of five households do not have enough to eat at any given time.[11] In Mathare, one of Nairobi's largest low-income settlements, food represented nearly half of total household expenses. Given high rates of joblessness, low wages and the unpredictable nature of casual labour, this translates into chronic indebtedness and generalised food insecurity.[12] Recent research in Nepal and Cambodia also shows that low-income households without debts are the exception.[13] Given the high cost of borrowing, debts keep mounting. In most cases, debts incurred for food are women's responsibility, often passed on like a form of perpetual bondage.

**Lack of sufficient, regular incomes is at the root of urban food insecurity. For urban residents any decline in incomes or increase in food prices can have catastrophic consequences.**

The urban poor often pay more for lower-quality food than their wealthier counterparts. Supermarkets and other larger retailers, where prices are lower, tend to be located at a distance from low-income settlements, whose residents can hardly afford the transport cost and time to reach them. In Cape Town, prices in supermarkets are 20–26% lower than in small shops.[14] Households relying on daily wages also cannot afford cheaper bulk quantities but have to buy small quantities from local shops and street vendors.[15] In Cambodia, '500-riel' shops package and sell most cooking essentials in quantities small enough to be

affordable to poor daily earners, but per-unit costs are significantly higher than for larger amounts sold by larger retailers.[13] Meanwhile, local shops, mostly run by residents of the same settlement, are easily accessible, stay open long hours, and offer credit to regular customers, an essential service without which the urban poor would go hungry much more often.

Borrowing and buying food on credit are common strategies of the urban poor. The composition of meals can also be changed to reduce the proportion of more expensive (and more nutritious) ingredients in favour of cheaper ones. In Southeast Asia, this can be just rice and salt, sometimes with some fish sauce. To calm hungry children, there is also a worryingly extensive use of sugary drinks and biscuits, and in some cases dried packet noodles eaten as snacks.[13,16] In contexts of food insecurity and high exposure to street foods, so often the case in urban low-income neighbourhoods, both adults and children are likely to consume energy-dense, nutrient-poor foods, making them susceptible to obesity. This problem has radically increased in recent decades and now reportedly affects 604 million adults worldwide and 108 million children,[17] often driven by corporate advertising targeted at the poor. A study in poor urban neighbourhoods in Ghana and Kenya, for instance, found the environment was saturated by advertisements for unhealthy foods, mostly for sugar-sweetened beverages. Meanwhile, a diverse, healthy diet was far more costly. Public health budgets, the authors point out, are dwarfed by those of the corporations seeking to push sales, and in this context, efforts to improve a reliance on healthy foods and beverages can have a limited effect. They conclude that a key area for policy has to be making healthy food more affordable, along with regulating advertising.[18]

Informal street vendors are often blamed for promoting the consumption of unsafe and nutritionally unbalanced food. While this is partly true, informal markets and street vendors are also often the main source of cheap, fresh produce for low-income urban residents.[19] While food sold in formal urban markets may be perceived as safer, it may in fact have lower compliance with food safety standards than informally marketed foods.[20] Understanding and supporting the role of informal markets and vendors is key to promoting the food and nutrition security of the urban poor.

## 2.2 THE NON-INCOME DIMENSIONS OF URBAN FOOD AND NUTRITION INSECURITY

Other dimensions of urban poverty also present challenges. Accommodation in low-income settlements is typically overcrowded. Residents often cook in the room where they sleep, especially tenants, who need to keep rental costs at a manageable level while coping with inadequate basic infrastructure and services.[21] Lack of storage space and refrigeration is an obstacle to buying bulk food at lower prices. Secure tenure also has implications: eligibility for ration cards or poverty reduction programmes can require a legal city address, all but impossible for the residents of informal, low-income settlements, as dramatically shown during

Covid-19 lockdowns. While lack of access to public safety nets is a major problem for many residents of informal settlements, it is especially severe for the large numbers of migrants and refugees living in cities.[22]

Disproportionate exposure to environmental hazards is also pervasive in low-income settlements, in many cases built on contaminated land or flood plains, the result of the limited availability of affordable land and the need to be close to employment. These risks combine with the lack of basic infrastructure, exposing residents to water-borne and food-borne diarrhoeal diseases and vector-borne diseases such as malaria. Climate change-induced extreme events such as floods and heatwaves also intensify health hazards and affect all elements of food systems, from production to distribution, storage, retail and consumption. Inadequate diets increase vulnerability to infectious diseases, including Covid-19, and the higher incidence of ill health further undermines what may already be precarious livelihoods, in turn contributing to malnutrition with especially pernicious long-term consequences for children.[23]

**Income poverty, unsanitary living conditions and malnutrition reinforce each other in a vicious cycle.**

## 2.3 GENDER AND THE IMPACTS OF FOOD INSECURITY

Roles and responsibilities around food are heavily gendered, with women disproportionately in charge of ensuring there is food on the table, often at a high time and energy cost. In traditional cultures, this can stretch to include expectations of self-sacrifice such as going hungry in order to feed their families.[13] For most women in low-income urban households, income-generating work is a necessity. This also increases their independence. But long hours, with long journeys to work and time-consuming reproductive activities, including childcare, purchasing and preparing food and often fetching water, take a heavy toll.[24] With high dependency on daily earnings, a child's sickness means foregoing the money for nutritious food, in turn increasing the chances of the child being sick again and the mother foregoing more earnings: a vicious circle, where income poverty, unsanitary living conditions and malnutrition reinforce each other. Interventions to improve food and nutrition security in urban areas cannot afford to ignore how it is shaped by, and shapes, gender relations.

# CAPE TOWN: COMMUNITY INNOVATION IN A CRISIS AND BEYOND

Covid-19 has highlighted the precariousness of the livelihoods of the urban poor, with widespread hunger affecting millions. But the crisis has also led to innovation. Masiphumelele is a low-income settlement in Cape Town. It has high levels of food and nutrition insecurity due to substandard housing, overcrowding and financial precarity making residents more vulnerable. Under Covid-19 lockdown, many people lost their incomes due to the closure of formal employment and the crackdown on the informal economy. Schools used to feed children daily, but they also closed. This left Masiphumelele's over 18,000 households in need of food aid. The initial efforts to provide food parcels and vouchers soon proved to be unsustainable.

As the crisis unfolded, community leaders and supporting NGOs explored the idea of small, decentralised community kitchens. Within eight weeks there were 27 running kitchens and more planned. Led by the residents, they are adaptable and able to satisfy local food preferences. For the duration of the crisis, the kitchens are providing a sustainable safety net. They are also a long-term solution to endemic food insecurity if organised in a cooperative rather than top-down way. There are three main reasons for this:

- Kitchens offer nutritious meals at low cost through bulk purchasing and collective cooking in common spaces – addressing two of the main challenges: lack of sufficient incomes and lack of space for storage and cooking.
- By sourcing from local growers and farmers the kitchens support the local economy and increase small producers' resilience. Collective drop-off points include mosques, churches and community halls, thus engaging a wide network of community organisations.
- There is strong potential for financial sustainability because of the low cost and the diversity of funding sources, including donors and local government. Specific purchases are made by community organisations and local NGOs.

There are challenges: community kitchens offer less autonomy than food parcels and vouchers and may not be universally acceptable. They also rely on women's voluntary work and they face time and fuel shortages. However, as part of a multi-faceted approach to food and nutrition security that includes parcels, vouchers and school meals, they show that community-led initiatives are more likely than top-down approaches to identify and address the complex reasons of food and nutrition insecurity.

Source: Hunter-Adams, J and Battersby, J (2020) Responding to crisis in a South African township: community innovation for nutritious food in the time of Covid-19. *Nutrition Connect.* http://bit.ly/304kFIL

# 3. IMPLICATIONS FOR CHILDREN IN URBAN AREAS

Over 20 years ago, researchers pointed to the particular urban challenges with regard to nutrition and caregiving.[25] With the growth of urban populations and poverty levels, the situation remains critical. Childhood malnutrition,[26] influenced by a number of factors associated with urban poverty, has far-reaching effects, especially for those aged under five, contributing to an estimated 54% of all deaths in this age group, and to increased vulnerability to a range of other health problems, including the greater risk of overweight later in life.[27] The problems begin even before conception, with poorly nourished women unable to support healthy foetal development. Malnutrition in utero and early childhood can also contribute to impaired cognitive development, leading to lower school performance and adult productivity.[28] Problems for older children, while not as developmentally significant, are far reaching. Adolescent girls can be especially vulnerable to undernutrition and anaemia with long-lasting effects, including for the safety of later pregnancies and the health of their infants.[29] Obesity, as noted, is also increasingly a problem for children, especially in urban areas. While it most heavily affects higher-income groups, children from poor households are not exempt.[30]

**Childhood malnutrition contributes to an estimated 54% of all deaths in children under 5.**

## 3.1. SCALE OF THE PROBLEM AND DATA SHORTAGES

Based on the available large-scale evidence such as Demographic and Health Surveys (DHS),[31] there is a general acceptance that nutritional deprivation is more prevalent among rural children.[32] As Fagbamigbe and colleagues point out, 'Access to balanced meals, better housing, health services, safe water and hygiene may put urban children at lower odds of malnutrition.'[33] But as Fotso demonstrated over 10 years ago, the locus of poverty and malnutrition has been shifting to urban areas and claims about the urban health advantage ignore the enormous disparities in most low- and middle-income country (LMIC) urban areas. Rates of child malnutrition and related morbidity and mortality are far higher in slums and peri-urban areas than in more well-to-do neighbourhoods, and this disparity tends to be considerably larger than the overall gap between urban and rural populations.[34]

Many local studies (as distinct from the large-scale surveys) reveal the particular severity of undernutrition in underserved informal settlements and poor urban areas.[35] In Bangladesh, for instance, the proportion of severely underweight or stunted under-five children living in slums was found to be nearly double that of children in other nearby urban areas.[36] Most of these comparative studies look at children under five, the most severely affected group. But malnutrition is a serious

concern for older children and adolescents as well.[37] A Nigerian study, for instance, compared children's weight in three schools in the same urban area: one poor, one middle income, one wealthy, as well as one poor rural school. The proportion of underweight children in the low-income urban school (20%) was more than double that at the poor rural school, and thirty times higher than at the middle-income school. There were no underweight children at the wealthy school. The middle-income and wealthy urban children had far higher levels of obesity, however (26% and 42% respectively). None of the girls at the poor urban school were obese and just 6% of the boys.[38]

## 3.2 KEY DIMENSIONS TO CONSIDER

This is not a numbers competition, however. These comparisons serve mainly to direct attention to the depth of the problem in poor urban areas, which can be obscured by the more commonly available statistics, and to clarify the contributing factors in this context. Specific drivers of urban food insecurity were outlined above. Here we consider three dimensions that especially need to be considered for children in urban poverty: feeding and care practices, the larger food environment, and sanitary conditions in poor urban areas.

### 3.2.1 FEEDING AND CARE PRACTICES

- **Breastfeeding:** Although exclusive breastfeeding for the first six months is accepted as ideal, this practice is far from universal. Rates vary widely but are generally significantly lower in urban than in rural areas.[39] In Niger, for instance, median duration of exclusive breastfeeding was two months in rural areas and only a week in urban areas.[40] In Vietnam, rural mothers were about 24% more likely to be breastfeeding still at three months after birth.[41] Education can play a role, although not always consistent. Whether or not a woman is in employment is often a determining factor,[42,43] and women in urban poverty are more likely to be working away from home than their rural counterparts.[44] This can mean early cessation of breastfeeding and a transition to nutritionally less-suitable foods.
- **Regular feeding:** Adults can cope to some degree with periods of scarcity, but young children need regular meals of adequate quality to support their rapid growth and development, not only from week to week but, given their limited gastric capacity, over the course of each day as well.[45] This can be threatened by the problems that influence food security and food preparation in the context of urban poverty. Most obvious are the dependence on a cash economy, precarious informal employment and difficulties with purchasing and storing larger quantities of food. When mothers work, it can also mean fewer meals in a day, or a reliance on other caregivers who may be less vigilant in ensuring regular feeding for small children.[43]

**Adults can cope with periods of scarcity, but young children need regular meals of adequate quality to support their rapid growth and development.**

- **Household allocation of calories:** Both rural and urban evidence shows women and young children to be especially vulnerable to household food allocations.[46] In Bangladesh, a careful assessment of the calories allocated to different household members relative to their nutritional needs found that, when there was more food than needed, excess calories tended to go to young children. When food was scarce, and wage earners needed to maintain strength for work, young children were most often penalised.[47] This study did not distinguish between rural and urban households. But arguably, the difficulty in smoothing incomes in poor urban households dependent on precarious informal livelihoods can be especially salient.

### 3.2.2 THE FOOD ENVIRONMENT AND DIETARY DIVERSITY

Closely related to feeding practices is the larger food environment, which affects the diversity, nutritional value and cost of the available diet. As noted already, the extensive use of sugary drinks, biscuits, and other highly processed, minimally nutritious foods is especially common in towns and cities and generally costs less than a healthy diet.[12,16,18] While obesity for urban children in LMICs remains primarily a problem for higher socioeconomic groups, these trends are rapidly changing. For children in poverty, poor-quality diets are still reflected primarily in nutrient deficiencies, but also increasingly in overweight. A lack of dietary diversity can also be complicit in stunting, as is evident in urban Indonesia, where stunting in young children was linked to consumption of low nutrient snack foods.[48] The outcome, either way, is that growing numbers suffer from multiple forms of malnutrition.

### 3.2.3 SANITARY CONDITIONS

A major problem for children in urban poverty is the combination of food insecurity with unsanitary living conditions, and the resulting cycle of infection and malnutrition. The sheer extent of uncollected garbage, unsafe water, open sewers and poor drainage in the context of high density make this especially significant in many urban settlements. [49] Young children are particularly at risk, with their immature immune systems and tendency to handle everything and play close to the ground. Guerrant *et al*. argue that malnutrition should be seen as an enteric infectious disease that exacerbates and combines with other infectious causes of morbidity and mortality. 'Only with this understanding,' they say, 'can we adequately address the vicious cycle of infection and malnutrition.'[50]

Unsanitary conditions affect children in various ways. Infants and toddlers may be sickened by formula, teas or other drinks that contain contaminated water, or by bottles washed with this water, a strong argument for prolonged breast feeding. Older children playing in areas contaminated by waste and faecal matter can easily contract diarrhoeal diseases, especially when water for handwashing is in short supply. Diarrhoea, in turn, squanders nutrients, leaving children vulnerable to repeated infection. The energy expended in fighting off infection could otherwise contribute to healthy growth. Despite impressive reductions in diarrhoea-related deaths since 2000, children under five remain twice as likely to die from this common problem, and are also especially vulnerable to the many related forms of morbidity. Their undermined nutritional status contributes to this vulnerability.[51]

## THE IMPACT OF IMPROVED SANITATION ON CHILDREN'S NUTRITION

It is easy to underestimate the nutritional impact on children of improved sanitation. Within slum settlements in Bangladesh, for instance, income was found to make a larger difference – children from poor households were more than twice as likely to be malnourished as those from non-poor households. Meanwhile, children from households with improved sanitation facilities were only 20% less likely to be stunted than those without an improved facility – a meaningful improvement, but not one that adequately represents the potential contribution of improved sanitation.

Research clarifies that a focus on just the household level can markedly underestimate the potential impact of improved sanitation. When only a small proportion of households are reached, the overall community level of faecal contamination can remain high, along with children's chronic exposure to pathogens. When a higher community threshold is reached, the impact is more dramatic. According to Cronin *et al*., when sanitation improvements reach fewer than 60 % of households, there may not be substantial gains.[52] Yet simply aiming for 60% coverage has its problems too. According to the authors, this would tend to favour the better-off households in a community; the remaining households, they argue, would tend to be clustered in areas bearing the brunt of the absent services, and the accompanying health and nutrition deficits. The objective, rather, should be to achieve communities that are open-defecation free (ODF) to realize optimal health and nutrition gains. The point is clear: in contaminated environments, nutritional supplementation and hygiene awareness are unlikely to be as effective without community-wide basic sanitation. Preventing child malnutrition in poor urban settlements has to happen in the context of broader supports, which can most effectively be delivered at scale in partnership with local government agencies and communities of the urban poor.[53]

# 4. IMPLICATIONS FOR PRACTICE – RESEARCH INTO ACTION

Children's malnutrition in urban areas can be related to a complex constellation of factors, and practical action must ideally take account of these complexities. Many of the challenges, as noted, are structural in nature and include both food-specific concerns such as the characteristics of urban food systems, and non-food challenges such as high levels of exposure to infection and the insufficiency for many households of housing, basic service provision and reliable employment. These structural factors in turn influence both the underlying health of children and the quality of care they receive.

While there is a copious literature on a wide range of successful rural interventions for child malnutrition, it provides somewhat limited guidance for urban areas. Rather, there are indications that what works in rural areas may not always meet the same level of success in complex diverse urban environments.[54] What evidence

we have suggests that discrete, targeted *nutrition-specific* interventions, while important, should be accompanied by the structural *nutrition-sensitive* interventions designed to tackle the abundance of underlying drivers.[55] There is a growing consensus that children's malnutrition in urban areas requires multi-focused integrated responses to adequately address this complexity.[56] As Ashe and Sonnino explain, it requires 'New approaches to public health nutrition and food policy that privilege systemic, structural and environmental factors over individual and mechanistic ones.'[57] Food security issues in urban areas also call for far-reaching efforts to address the implications of climate change for households and urban food systems, and now also the extreme challenges posed by Covid-19, which can be especially severe in the context of urban density. There are many ways NGOs can contribute to the design, delivery and success of initiatives.

**Targeted *nutrition-specific* interventions should be accompanied by structural *nutrition-sensitive* interventions designed to tackle underlying drivers.**

## 4.1 SUPPORT LOCAL DATA GATHERING AND RESEARCH

Where responses to urban malnutrition are concerned, the situation is complicated by the dearth of adequate data, both on the scale and nature of the problem and on the success of various urban interventions. Research to support a better knowledge base is a critical need, especially the fine-grained collection of local data that can inform effective local responses. It is critical, for instance, to understand the specific nature of local nutritional problems, the availability of services, and whether or not they are responsive to community needs. Coordination with and support for grassroots organisations of the urban poor can be a good place to start, since they are responsible for so much of the extant information on deprived urban settlements.[58] Research with organisations of the urban poor in Asia, for instance, shows their clear understanding of the intimate connections between nutrition security and both income and non-income poverty.[13] The community-led collection of data that reflects household, settlement and city-level circumstances provides information often otherwise unavailable: the basis for identifying needs and priorities to be addressed by interventions.

The data collected should cover household-level information: what people eat, what they consider to be satisfactory diets, how often they can eat what they consider a 'good meal'.[59] It may include incomes (affordability of food), location and open hours of retailers (accessibility), housing conditions, as well as how often children are ill. Women are typically extremely knowledgeable about these issues. Data should also cover settlement/neighbourhood information: availability of jobs, transport, exposure to environmental hazards such as floods and unmanaged waste, availability of basic services such as health centres and schools and the number and type of food retailers. Mapping can be a useful tool here.[60] Informal food vendors operating within the settlement play a key role and should be involved in data collection. An understanding of larger systems is also important, such as existing and proposed policies at city level that affect informal trade and livelihoods. Higher-level government interventions, whether on housing, basic services or

employment, among others, could also benefit from assessments of the generally overlooked child impacts, in this case for nutritional status.[61]

### 4.2 SUPPORT LOCAL CAPACITY

Because NGOs are often limited in the time or investment they can commit to specific projects, priority should go to supporting local capacity so initiatives can have the long-time horizon that is essential to achieving change. Options can cover a wide range of activities, such as community gardens, school feeding programmes, training for informal street vendors or solid waste management. The key is ensuring that activities address locally identified needs and priorities that are led ideally by community organisations, with NGOs providing the necessary support.

**Priority should go to supporting local capacity so initiatives can have the long time horizon that is essential to achieving change.**

### 4.3 MAKE NUTRITIONAL INTERVENTIONS CONTEXT-SPECIFIC

The basic interventions most typically undertaken by child-focused NGOs include support for breastfeeding, nutritional supplementation, food subsidies, maternal education and the use of community health workers to identify malnourished children. These, along with prenatal care, are important in urban as in rural areas. But within the complex urban arena, there is particular value to acting in partnership with communities or in support of community-driven efforts. This is not to overlook the fact that many NGOs are already committed to participatory approaches, but rather to re-emphasise the importance of such local ownership in urban settings. These initiatives can be much strengthened by coordination with efforts to address the systemic concerns that complicate the situation. For instance, efforts to increase awareness about healthy dietary diversity might succeed better in combination with cash and voucher assistance to make healthy foods more affordable, along with higher-level regulatory initiatives to curb rampant advertising for unhealthy snack foods.[18] Supplemental feeding initiatives in communities where sanitation needs are also being addressed might have more far-reaching effects than either of these interventions undertaken alone.[62] NGOs can also ensure that households are fully aware of the range of services and social protection programmes available, and help them to register. Whole city approaches, with all players coordinating, can increase effectiveness.

### 4.4 ESTABLISH CHILDCARE FACILITIES

Especially important in this context could be collaboration with communities, employers and local government to establish responsive, subsidised childcare facilities, ideally close to work and including support for breastfeeding mothers.[63] Aside from providing a platform for addressing young children's nutritional and health needs, good childcare services make it possible for mothers to take advantage of livelihood opportunities and to use their limited time more efficiently.[64]

### 4.5 PROVIDE ADEQUATE WASH SERVICES

Given the close relationship between unsanitary environments and urban malnutrition, it is critical that environmental health be part of any integrated plan. This must go well beyond encouraging hygiene awareness in households, given the limited impact when there is no supportive infrastructure. NGOs can encourage partnerships between planning and health services, advocate with local government for provision of WASH services to unserved settlements, and conduct research to establish the effectiveness of adequate sanitation for children's health.

### 4.6 SUPPORT THE PRIORITIES OF THE POOR

The bottom line is ensuring that concerns are identified and addressed in partnership with households and communities, and undertaken in coordination with attention to the broad range of issues. These recommendations underline the contention in other briefs in this series, that a role for NGOs has to be directed less toward project delivery than to supporting the priorities of the poor and their relationship with a range of local government departments and other actors, with a view to achieving the necessary integrated responses at scale.

## SUPPORTING PRIORITIES OF THE POOR: A HYPOTHETICAL CASE

A donor makes available US$500,000 a year for three years to a child-focused NGO to improve child malnutrition in an African city, with a focus on urban slums. Several local communities belong to a network of grassroots slum organisations, and the NGO meets with the local leadership to discuss a possible partnership. They decide to partner initially with one settlement of 200 households, which is about to undertake a data-collection effort as part of a more general citywide effort to negotiate with the local authorities for upgraded sanitation. A meeting is held with community members to explain the objectives of the NGO, and to ensure local interest in partaking.

The next step involves working with the grassroots organisation to add some items to the planned survey, which already includes information on household members, livelihoods, housing, and water and sanitation arrangements. Questions are added on health services, school or local feeding programmes, height and weight of children under five, and any cases of diarrhoea in the last two weeks. They also design a more in-depth assessment to use with 40 households with young children including information on household diet and food preparation, access to and affordability of food items, use of snack foods, household water, sanitation and hygiene (WASH) practices, weight of children over five, and the use of any supplemental feeding programmes. Community data collectors are trained to collect these additional items, and to work in partnership with NGO staff on the in-depth assessments.

Analysis of the data reveals that 40% of the community's young children are stunted, 10% have had diarrhoea in the previous two weeks, and a third of the older children are underweight, especially the adolescent girls. More than two thirds of the households struggle to provide three healthy meals a day, and few find it easy to use available

health services because of distances and opening hours. Results are presented to community members, with a discussion of children's nutritional status and how this relates both to diet and to environmental and hygiene conditions. There are several meetings where priorities for action are identified and discussed in detail.

Actions undertaken include:

- Weekly visits to the settlement by a health worker, with monthly clinics on site for height and weight monitoring, deworming and anaemia assessments
- The provision of food vouchers for healthy food items at two nearby markets
- Supplemental food packages to households with severely malnourished children
- A partnership with the local school to establish a feeding programme
- Training and a food budget for the women who run the two local crèches
- The inclusion of information on children's stunting status in negotiations with the city authorities around improved sanitation, and an effort to involve the local health department, and
- A community-awareness campaign on hygienic practices, and around maintaining clean play spaces for children, with a group of older children taking the lead.

Every six months, the situation is revisited in community meetings. Any changes in children's nutritional status are reported and discussed. Interventions are assessed, problems and challenges are discussed, and changes are proposed. In the second year of the intervention, several other settlements are selected for inclusion. Some members from the first community receive more detailed training on children's malnutrition and are able to lead informational meetings, answer questions, facilitate discussion and help set up the programme. By year three, 20 slum settlements are involved, and there are meetings between settlement representatives on their experiences and results.

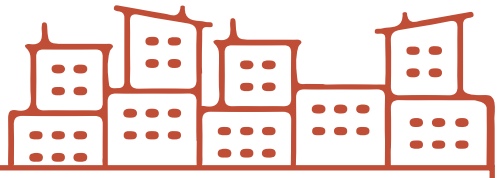
Meanwhile, the city is lagging behind on sanitation upgrading. By year three, only two of 40 slum settlements have been reached. The NGO and grassroots leaders together start a campaign to raise local government awareness of the urgency of the situation. In partnership with the local health department, they undertake a comparative study of the nutritional status of children in the two settlements where the city has upgraded basic infrastructure and two where this has yet to happen, and results are widely shared, including in local newspapers.

After three years, the results of the partnership programme to improve child nutrition are impressive enough for the NGO to negotiate the funds for similar programmes in five more cities. Advocacy at national level leads within a few more years to widespread funding for similar approaches.

## 5. CONCLUSION

This brief has been a cursory overview of the complex landscape of food security and child malnutrition for poor urban populations in the global South, describing the multitude of factors that undermine urban food security and feeding practices, with their extensive implications for children's nutritional status. While more general aggregate data still point to an urban advantage in nutritional well-being, a closer look at the admittedly scanty data on the situation among the urban poor suggests that this advantage is an illusion for many. Children in low-income urban settlements are weaned earlier and are far more likely to be stunted and wasted than children in more affluent sections of their towns. In many cases, they are also worse off than their rural poor counterparts. Although not suffering from obesity at the rates of their wealthier neighbours, the number of overweight children among the urban poor is also rising, often reflecting a diet heavy in unhealthy snack foods.

Malnutrition among urban children is profoundly affected by the unsanitary conditions of many of their settlements, by the uncertainty of urban livelihoods and incomes, and by the care and feeding practices that reflect the challenging lifestyles of an urban poor population struggling to keep afloat. Interventions in urban areas are both less common and sometimes less effective than those same interventions in the more accustomed realm of rural programming. Indications are that specifically urban responses need to be more multifaceted and integrated, addressing not only nutritional deficiencies and supports for food security, but also deep-seated structural inequities in services and livelihoods.



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