

HEART

HEALTH & EDUCATION ADVICE & RESOURCE TEAM

Helpdesk Report: Nutrition programming in urban settings

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Query: Are there examples of nutrition programming in an urban setting? Why were they successful? What are the main challenges they had to overcome and how were these addressed?

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1. Overview

More than half of the world's 7 billion people now live in urban areas (UNICEF 2012). As the world's population is becoming increasingly urbanised, new challenges are arising. The rural-urban gap in nutrition has narrowed in recent decades – essentially because the situation has worsened in urban areas (UNICEF 2012). Ensuring adequate nutrition and food security for people living in urban areas is arguably one of the most significant challenges (FAO 2014). The poorest urban-dwellers spend up to 75% of their income on staple foods alone. The 'food poor' refers to those unable to meet all nutritional needs due to expenditure on other basic non-food essentials (Kyalo et al 2013).

The body of knowledge on basic indicators, including food security and nutrition, is still limited (Mohiddin et al 2012). Although there is usually a greater diversity of food products available in cities, little food is produced in urban areas. For people living in urban areas, the main determinant of food insecurity is not production but accessibility. Access to food depends on household income, the price of food and the location of food outlets (Crush & Frayne 2010). Access is therefore usually dependent on cash exchange (FAO 2014). This dependence leaves poor urban dwellers vulnerable to price increases and other market shocks (Mohiddin et al 2012, Nord & Luckscheiter 2011). Many people do not have a fixed income, which also leads to insecurity. The situation is made worse by some authorities discouraging agriculture in urban areas, which can be a means of supplementing nutrition (FAO 2014).

Urban communities tend to have high population densities. They can also be very transitional, with migration being a constant feature (Beyer et al 2013, Mohiddin et al 2012). Poor people living in informal settlements and slums face a unique set of challenges. Although urban areas usually has better healthcare, education and sanitation compared to rural areas, proximity does not equate to access. There are many barriers to access, including cost and working hours. Each urban area has its own characteristics. What works in rural areas may not work in urban areas and an in depth analysis is recommended prior to any intervention (Mohiddin et al 2012). With many actors working to improve nutrition status,

better coordination is needed between them. Urban-specific skills are needed for planning. In particular planners must understand gender sensitivities in urban areas (Mohiddin et al 2012).

There is a paucity of research focused on urban food (Battersby 2012). To date, much of the research has focused on nutrition-related disease. More research is needed on food-borne disease, particularly in Africa. The assurance of safe food is essential to improving the quality of life for those already affected by disease. Equally, persons suffering from food-borne illness are more likely to contract other communicable diseases. Much more research is necessary on the issue of food-borne disease, right across the food supply and distribution chain (Crush et al 2011).

In some cases, enough and sufficient varied nutritious food may be available, but affordability can limit access. Price can be a reason for choosing which food and where to buy it, but the possibility to buy on credit or in small quantities may also be factors of influence as well. Seasonality may also affect price and thus access (van der Veen et al 2013).

Examples of nutrition programmes for urban populations.

Zimbabwe

Traditional ration programmes have been found to be ineffective in urban areas. In Zimbabwe, the Market Assistance Pilot Programme (MAPP) provided people living in urban areas with sorghum (a low-cost maize alternative) through existing commercial channels. A replacement staple food must be appropriate to local conditions and preferences. There is scope to increase the nutritive value of sorghum meal through fortification with vitamins and essential minerals. This can benefit the general population, but also those that are sick, including HIV/AIDS patients. Financial situations will vary depending on each location. In Zimbabwe, the majority of the low-income households receive income erratically. Those in formal work usually receive their wages each week. Therefore people cannot afford purchase of large quantities at a time. The hyperinflationary Zimbabwean environment means frequent reviews of sorghum meal prices are needed to ensure it is still affordable to the most vulnerable.

Kenya

Management of acute malnutrition programmes in urban Kenya have ensured that integrated management of acute malnutrition (IMAM) becomes part of the routine health service. The programmes have utilised existing human resources including Community Health Workers and community leaders. Community linkage has been strengthened between the health facilities, inpatient referral centre and community, thus increasing referrals and home follow-ups of acutely malnourished children. Challenges encountered by the programme include poor staff and capacity retention, community Health Worker motivation/remuneration, high defaulter rates coverage, and funding. Working with the Ministry of Health was found to be important for the success of the programme. Also, partnerships with private health facilities were found to be critical in increasing access and increased use of protocols by all health providers.

A programme in Kenya focused on strengthening information systems and analysis in urban areas, to identify who and where are the most vulnerable. Once the vulnerable have been identified, the next step was to address disparities in malnutrition in urban informal settlements/slums. This was done with the support and collaboration of the Kenyan Ministry of Health. There were many challenges to the programme, including inadequate resources for health and nutrition programmes at all levels and a lack of partners focusing on urban nutrition. Market level influence including price shocks and sub optimal complementary foods were also challenges. The programme was also found to be effected by social challenges and insecurity, including the impact of HIV/AIDS, substance use and violence. To improve the

programme, there is a need for strengthened analysis for disparities and interventions (Beyer et al 2013).

The Food, Income, and Markets (FIM) Programme in Kenya aimed to improve capacity to participate in and interact with markets, reducing marginalisation and improving adaptability to a changing environment reaching approximately 10,000 beneficiaries in the urban slums and the Arid and Semi Arid Lands (ASALs) (Concern 2013).

South Africa

The University of the Western Cape (UWC) implemented an intervention in South Africa to address the burden of non-communicable diseases (NCDs), which included improving nutrition as an objective, in an urban township. The intervention involved working with community health workers (CHWs). Community members, mostly females, were screened for individual risk factors and the CHWs were trained to promote healthy lifestyles. CHWs were trained to advise on making healthy food choices and increase physical activity. Talks and discussions were held on healthy nutrition, cooking techniques, the importance of physical activity and other topics. Food tasting and recipe sharing was encouraged, with CHWs acting as role models and agents for disseminating the information in the community. Analysis found that people were motivated to take action to improve their lifestyles. However it was noted that education does not guarantee behaviour modification of community members and CHWs. A conducive environment that encourages healthy living is needed. The use of CHWs in the planning and implementation of such an intervention enhances accessibility and sustainability. To maintain the benefits of such programmes there is a need to invest in continuous training, provision of resources and lobbying of political leaders for buy-in (Puoane et al 2013).

The Philani Maternal, Child Health and Nutrition Project focuses on urban settlements in Cape Town. Interventions aim to prevent malnutrition, rehabilitate underweight children and promote good health. Mentor mothers are trained in skills relating to HIV/AIDS, maternal mental health, nutrition, basic health, early stimulation and play, knowledge about community resources and services, and information on grants, and referral routes and mechanisms. Following training, successful applicants are employed and conduct approximately six home visits per day, building supportive and trusting relationships and discussing family and parenting-related issues. Ongoing supervision and input from coordinators and local clinic nursing staff ensures the programme's success (Tomlinson 2014). Breastfeeding support is offered through state facilities. Flexi-clinics are organised through the mentor mothers, often held in their own homes. Advice is provided through Nutrition Centres (Philani 2014).

India

Calcutta Kids focuses on the health and empowerment of the underserved women and young children in urban Kolkata. This is achieved through the provision of intensive preventive services complemented by effective curative care when required and carried out primarily by locally trained Community Health Workers (CHW). The nutrition programme includes interventions such as identification of malnourished children, complementary feeding, micronutrients (including calcium, vitamin a, zinc) and deworming. At the centre of this approach is mobilising effort from within the community, so that mothers are completely invested and participating in the growth monitoring and the nutrition status of their children (Calcutta Kids 2014).

Bangladesh

Urban Partnerships for Poverty Reduction (UPPR) in Bangladesh uses a community-based approach led by women, who are empowered to manage their development to meet their own needs and those of their family and community. Interventions include technical training

for poor people on agriculture and nutrition. Beneficiaries can sell some of their home-grown food and increase their calorific intake. Supplements, including iron and folic acid (IFA), are also distributed to pregnant and breastfeeding women as well as adolescent girls. De-worming tablets and multiple micronutrient supplements are supplied to children. In addition, services such as training, workshops and counselling on nutrition, exclusive breastfeeding and hygiene practices take place in order to raise awareness of healthy and proper practices (UPPR 2014).

What does the evidence tell us?

Effective interventions to reduce child undernutrition may include micronutrient supplementation (iodine, iron and vitamin A); food supplementation (for micronutrient deficiencies); infection prevention and treatment; growth monitoring and promotion; education about infant feeding practices (breastfeeding and complementary feeding); and school feeding programmes (UNICEF 2012). The following are examples of what has worked to improve nutrition in various urban areas in developing countries:

- Evidence suggests social protection and cash transfer programmes improve dietary diversity. However, more research is needed to understand their impact on the nutritional status of children (Mohiddin et al 2012).
- Cash for work and urban agriculture projects in informal settlements in Kenya resulted in short term impact (Field Exchange 2013).
- There is some evidence that the households that receive social grants have lower prevalence rates of hunger for young children as well as older children and adults, even compared to those households with comparable income levels (Crush et al 2011).
- In Kenya, research indicated that enough and sufficient varied nutritious food was available at the local markets. Affordability and access was the problem (van der Veen et al 2013).
- Evidence suggests that Urban Food Production (UFP) initiatives targeting the extreme poor, can significantly contribute to poverty alleviation by improving the nutritional status of dwellers and/or providing additional sources of income (Marshall et al 2013).
- Research indicates that community health worker based interventions reduced malnutrition. Women receiving home visits were three times more likely to breastfeed exclusively for six months and breastfed longer. Those who previously had a low birth weight infant were half as likely to have another low birth weight infant, compared to controls (Tomlinson 2014).

Specific recommendations

Specific recommendations from the literature regarding nutrition programmes for urban areas include:

- Multisectoral, integrated programming is needed with an enhanced role for coordination between actors including (I)NGOs, Governments, UN, the private sector and donors (Mohiddin et al 2012).
- Work with the Ministry of Health system for a more effective and sustainable approach to delivery of IMAM (Kyalo et al 2013).
- Partnerships with private health facilities in provision of IMAM services can increase access and increased use of protocols by all health providers (Kyalo et al 2013).
- Urban-specific skills are needed, especially related to programme design, governance, and understanding gender roles (Mohiddin et al 2012).
- A thorough context-specific analysis is recommended prior to any urban nutrition intervention (Mohiddin et al 2012).

- An understanding must be gained of the underlying socio-cultural and economic factors influencing the demand for and access to nutritious food and ultimately food intake (van der Veen et al 2013).
- Allen (2004) recommends that programmes based around importing replacement staple foods must:
 - Be appropriate to local conditions and preferences is necessary if it is to be accepted.
 - Consider fortification to improve nutritional status.
 - Ensure the replacement food is sold in quantities that people can afford. Most poor people do not have large reserves of cash. Although buying in bulk is cheaper, most poor urban people cannot afford the upfront payment that bulk buying requires.
 - Customs clearance times and storage charges must be considered during planning.
 - Include stakeholder participation and support.
 - Include quality assessment tests
 - Be continuously reviewed to ensure that the most vulnerable are reached.
- Further research to gain an understanding of the impact of social grants on the nutritional status of individuals and households requires further investigation (Crush et al 2011).
- Further research on reducing the burden of food-borne disease. This is of particular relevance in Africa (Crush et al 2011).
- A household's assets, abilities and decision-making should be taken as the starting point for tackling food insecurity in urban areas. This starting point must then be combined with the market and non-market foodscapes accessed by these households (Battersby 2012).
- Strengthen information systems and analysis in urban areas, to identify who and where are the most vulnerable (Beyer et al 2013).
- Some potential intervention strategies linking poor urban women to selected food value chains include:
 - Increasing purchasing power through collective action by consumers (women in particular).
 - Processing perishables that are crucial in diets but are hardly available outside peak seasons.
 - Identifying economic participation opportunities for women throughout the value chain (van der Veen et al 2013).
- To overcome issues of seasonality, foods that are largely absent from diets during parts of the year can be easily processed at household or local industrial level and made available at affordable prices in low season (van der Veen et al 2013).
- In Kenya, developing the commercialisation of edible insects would best increase the level of nutrient intake and address malnutrition in the target group, but would require significant investments and a longer term perspective. By contrast, investing in the mango value chain would be relatively easy and fast to accomplish, yet have a lesser impact on nutritional intake and the reduction of malnutrition among the target group (van der Veen et al 2013).
- Urban nutrition programming efforts should focus on business grants and small input support grants, with a specific focus on the extreme poor (Marshall et al 2013).
- Advocacy activities may be required to guarantee an adequate balance between consumption and sale. Consumption and improved nutrition should be the focus. Any income generated from the selling of production should be re-invested in food production (Marshall et al 2013).
- Using CHWs enhances accessibility and sustainability. Investing in continuous training, provision of resources and lobbying of political leaders for buy-in is needed for continuing success of a CHW focused programme (Puoane et al 2013).
- Mobilising effort from within the community improves investment and participation from the beneficiaries (Calcutta Kids 2014).

2. Background

Urban nutrition

FAO, 2014, website

http://www.fao.org/ag/agn/nutrition/urban_en.stm

As the world's population becomes increasingly urbanised the proportion of persons living in poverty in cities increases. With over half of the world's population predicted to be living in urban areas by 2020, there is a pressing need to address how cities deal with service provision and city planning for healthy lifestyles. For many countries, the current rate of expansion of urban agglomerations has brought about severe challenges to food and nutrition security in addition to the provision of basic services such as adequate housing, water and sanitation systems, the provision of health clinics and schools. There is a need to focus on the factors specific to life in urban environments which impact the nutritional status of urban populations.

A greater diversity of both local and imported food products are available in cities although, most of the food is not produced within city boundaries. Access to food in urban areas is dependent on cash exchange, with some exceptions where some urban food production contributes directly to household intake. Reliance on purchased food is the leading factor in household food security of poor urban populations, yet many lack a fixed income. Many households use urban agriculture as a means of supplementary income and for direct household consumption, although these activities are often discouraged by municipal authorities.

Urban malnutrition: a review of food security and nutrition among the urban poor

Mohiddin L, Phelps L and Walters T. 2012. NutritionWorks.

<http://www.alnap.org/resource/8602>

Save the Children UK commissioned NutritionWorks to undertake this review of what is known about the mechanisms by which poor people attempt to achieve food security in urban slums; and to examine how this is related, if at all, to their nutritional status, ideally in comparison with the rural poor in the same countries to assess any relative differences.

The review found that significant challenges are faced in urban food security and nutrition programming (by government, UN and (I)NGOs), beginning with assessment and targeting issues when faced with a highly mobile, densely packed population, where in- and out-migration is a constant feature. Although urban areas have traditionally been considered better served in terms of healthcare, education and sanitation, a closer look at the evidence reveals that proximity does not equate to access. Both cost of services and urban livelihood strategies, including long journeys to places of work and long working hours, limit access by the urban poor to healthcare, community nutrition services or improved water sources. Programmes have struggled to transplant rural approaches into the urban arena and are increasingly learning that there is a need to adapt, work with existing networks, organisations and systems, and conduct a thorough context-specific analysis prior to intervening. Social protection and cash transfer programmes are promising approaches in urban areas, with evidence to suggest that they improve dietary diversity, but as yet there remains a lack of evidence of their impact on the nutritional status of children under 5 years of age. The evidence clearly points to the need for multisectoral, integrated programming and an enhanced role for coordination between actors.

The review concludes that the urban poor living in informal settlements and slums face a unique set of challenges compared to their rural counterparts. Almost exclusively dependent on the market for food and other necessary items, slum dwellers are very vulnerable to price increases and other market shocks. The population density of slums, in combination with

poor sanitation and limited access to clean water, also translates into high transmission risk for communicable diseases. Despite the urban poor increasing in proportion to the overall population there is little disaggregated data, available between both rural and urban contexts, and between slums / non-slums. Although this is changing with new research focusing on slum dwellers, the body of knowledge on basic indicators, particularly health, food security and nutrition, is still limited. It is clear that urban-specific skills are needed in a number of areas, including analysis (especially related to gender roles), governance, and programme design within (I)NGOs, Governments, UN, the private sector and donors.

Donor lessons on linking emergency and development funding in urban programming

2013. Field Exchange 46: Special focus on urban food security & nutrition

<http://www.enonline.net/fex/46/donor>

The urban population in Kenya is disproportionately affected by food insecurity and malnutrition that has been exacerbated by the global food crisis. This article shares a bilateral donor's experience. Cash for work and urban agriculture projects in informal settlements in Kenya had short term impact. Donors need to link humanitarian and development funding to extend gains of 'emergency' projects. Stronger communication between development and humanitarian officers within donor country teams and around pooled funding is needed.

3. Examples of nutrition programming in urban settings

Pathways to Insecurity: Urban Food Supply and Access in Southern African Cities

Crush J & Frayne B. 2010. Urban Food Security Series; 3

[http://www.alnap.org/pool/files/afsun3-\(2\).pdf](http://www.alnap.org/pool/files/afsun3-(2).pdf)

This is part of a series of policy and research papers designed to raise the profile of the urban food security issue in Africa by presenting new research findings and policy recommendations. The new international food security agenda places the small farmer at the centre of its efforts to resolve the growing problem of food insecurity in Africa. This agenda has very little to say about the feeding of cities and the food security of urban populations. Amongst urban populations, the main determinant of food insecurity is not production but accessibility. In urban areas, accessibility depends primarily on the individual or household's ability to purchase foodstuffs which in turn hinges on household income, the price of food and the location of food outlets.

A Market Support Programme to Address an Urban Food Crisis in Zimbabwe

Allen K. 2004. Field Exchange 23.

<http://www.enonline.net/page/pdf/2442>

It is extremely difficult to address urban food emergencies through traditional general ration programmes. The logistic and targeting challenges are particularly daunting. The market support programme described in this article demonstrates an alternative type of intervention which circumvents many of these difficulties. During a time when Zimbabwe's urban population has seen its purchasing power slashed by soaring inflation and widespread unemployment, at a time of limited access to food, an innovative market intervention is working to rebuild the flailing commercial sector and sustain the urban poor. The USAID funded Market Assistance Pilot Programme (MAPP) is providing beneficiaries in Zimbabwe's second largest city, Bulawayo, with a low-cost maize alternative - sorghum - through existing commercial channels.

The main lessons detailed in the evaluation may be summarised as follows:

- Contrary to the initial misconceptions by retailers, the urban population in Bulawayo accepted sorghum meal. This finding emphasised that sorghum was appropriate to local conditions and preferences.
- Low-income households will always self-select and continue purchase of sorghum meal as long as it is affordable compared to maize meal.
- Sorghum meal was preferred as a breakfast cereal rather than thick porridge.
- To increase the nutritive value of sorghum meal, there is scope for fortification with vitamins and essential minerals for use by HIV/AIDS patients.
- The rate of milling should be determined by demand. However, it is difficult to forecast demand in an environment where Grain Marketing Board grain supplies are erratic. This pilot phase has been vital in indicating monthly trends in consumer demand for sorghum meal. This will help effective planning for the production of sorghum meal during expansion.
- Extraction rates are crucial in sorghum milling. There is need to understand the determinants of extraction rates.
- It took approximately nine months to clear the first consignment of sorghum. It is therefore important to note that storage costs will always be high due to the slow movement of the commodity.
- Beneficiaries prefer 5kg packages as the majority of the low-income households are on weekly wages or petty trade and therefore cannot afford purchase of large quantities at a time.
- Leakage and side marketing will always occur if sorghum meal prices are too low when compared to maize meal. This invariably occurs during periods of maize meal shortages.

In order to improve implementation of the intervention, the following recommendations were proposed:

- The format of the monthly reports should be standardised. It is critical that data presented in all reports is adequately checked for accuracy.
- A Working Group made up of relevant experts from the C-SAFE consortium should be set up to regularly review the implementation of the expansion.
- Stakeholder participation and support is critical to the success of the programme.
- Debtors Age Analysis records should be maintained so as to monitor that agreed credit limits and periods are not exceeded by debtors.
- MAPP has identified millers who are capable of delivering a quality product at the required extraction rate. These millers should be given first preference to participate in expansion of the programme.
- Targeting criteria should be continuously reviewed to ensure that the most vulnerable are reached.
- The hyperinflationary environment will demand frequent reviews of sorghum meal prices making it impossible for MAPP to keep to the prices printed on the packages. MAPP should consider abolishing the printing of the retail price on the package but instead, insist on the display of a big banner indicating the price of the meal at the retail outlets. Consistent display of this banner would be a requirement for the retailers to remain on the programme. In addition, during expansion, the programme could invest in a bi-weekly bulletin to inform beneficiaries on sorghum meal price and other related issues.
- Cleaner sorghum grain should be imported from the USA. If this is not possible, the programme should consider cleaning the bulk grain before bagging to get rid of the dust and plant residue. Quality assessment tests should be conducted on each consignment. It is not essential that the sorghum be de-hulled as most of the millers have the capacity to do this.

- A study to look at the sorghum extraction rates and its determinants should be commissioned.
- Sorghum milling has been commercialised in Botswana and South Africa. The quality of the sorghum meal should be standardised across millers. Before expansion, acceptable 'quality parameters' should be defined for each miller to adhere to. In addition, spot-checks on the quality of the sorghum meal should be conducted both at the miller and retail premises.
- A clear strategy for bran disposal should be developed. It is strongly suggested that bran disposal should be left to the millers.
- The programme targets vulnerable groups who, due to financial constraints, have problems accessing sufficient food to meet nutritional requirements. To increase the nutritive value of the sorghum meal, fortification with micronutrients, vitamins and essential minerals should be considered.

Food security in Africa

Nord A K & Luckscheiter J. (Eds). 2011. Perspectives 1:1 Heinrich Böll Foundation
<http://www.alnap.org/pool/files/perspectives-1-11.pdf>

One of the biggest challenges predicted to affect food security in Africa is climate change. An intensifying worldwide scramble for Africa's fertile land is another problem. If left unchecked, uncertain climatic conditions, coupled with population growth, political mismanagement and agricultural commodification, are likely to cause extremely volatile food prices in the coming decades. In this collection of case studies from Ethiopia, Kenya, Nigeria and South Africa, the authors examine some of these complex problems and suggest appropriate measures for ensuring food security, fighting hunger and promoting sustainable approaches to natural resources management.

The chapter focused on South Africa reported that volatility in food prices impacts massively on the poor in cities, more so than on the rural poor, because the urban poor are more cash dependent. If something impacts on one's ability to buy food, then it has a serious impact. The study showed that in South African cities, people don't have a lot of strategies (to deal with their food security) other than to buy food. Research from Cape Town found the poorest households were spending about 60 percent of their declared income on food. Others surveys have got it as high as 80 percent. When households are on that kind of margin, any increase in food price is going to hit them, far more so than for middle-income or rural households. The urban poor bear the brunt of this. Food prices don't increase equally across the board. So, for example, an increase in maize price is going to impact on the urban poor far more than an increase in red meat will. Within this demographic, there's a strong dependence on staples, particularly mielie meal (ground corn, a staple food in much of southern Africa) and bread. The price of staple foods are a real problem for the poor.

Rapid urbanization and the nutrition transition in southern Africa

Crush J, Frayne B & McLachlan M. 2011. African Food Security Urban Network (AFSUN)
<http://www.alnap.org/pool/files/afsun-7.pdf>

In this review the authors highlight several emerging issues that need to be considered in a policy-oriented research programme on nutrition in African cities:

- Most existing research on the connections between food insecurity and poor nutrition has focused on physiological outcomes. While impaired brain development in infancy and childhood is one of those outcomes, much less attention has been paid to the psychological dimensions and outcomes of acute or chronic food insecurity on the mental health of adults. There is therefore an urgent need to supplement the focus on nutrition and physical health with a complementary exploration of the relationship between food insecurity, nutrition and mental health.

- The state of knowledge about the 'vicious' cycle of nutrition and communicable disease such as HIV and TB is particularly relevant in the Southern African context. As the epicentre of the global HIV pandemic, the issue of how poor nutrition hastens the advance of AIDS and how HIV and AIDS impact on the nutritional requirements of people living with HIV are important questions. This literature on HIV and urban nutrition has been reviewed in a previous AFSUN publication. However, it is important to re-emphasise the point made there, that while there is a considerable body of biomedical research on nutrition and HIV, our understanding of the broader linkages between HIV and urban food security is much less refined.
- Social protection is being widely advocated by international organisations as a way to stave off rural hunger and undernutrition. There is some evidence that the households that receive social grants have lower prevalence rates of hunger for young children as well as older children and adults, even compared to those households with comparable income levels. Further research is needed to assess the impact of social grants on the nutritional status of individuals and households.
- Much of the existing research on the health consequences of food insecurity focuses on nutrition-related disease. However, the question of food-borne disease is of particular relevance in Africa. A recent UNICEF/WHO report notes that undernutrition makes children particularly susceptible to the diarrhoea that kills over one million in Africa every year. One way in which pathogens are spread is via contaminated food. As the FAO/WHO have noted, "persons suffering from diseases such as HIV/AIDS, tuberculosis, malaria, and other various ailments affecting the region are at a greater risk to be debilitated by unsafe food, as their immune systems are already compromised. Thus, the assurance of safe food is essential to improving the quality of life for those already affected by disease. Equally, persons suffering from food-borne illness are more likely to contract other communicable diseases." Much more research is necessary on the issue of food-borne disease, right across the food supply and distribution chain not just (as has been the case hitherto) among street food vendors.

Food insecurity in Africa has risen to the top of the international development agenda over the course of the last decade. Most of the policy and research emphasis, however, is on the chronic problem of undernutrition and associated negative health outcomes in the rural areas of the continent. Important as it is to find ways to overcome rural poverty and malnutrition, Africa faces an increasingly urban future and urbanisation *per se* is not the panacea for food insecurity.

Beyond The Food Desert: Finding Ways to Speak About Urban Food Security in South Africa

Battersby J. 2012. *Geografiska Annaler: Series B, Human Geography*, 94 (2).
<http://www.afsun.org/wp-content/uploads/2013/07/Battersby.pdf>

Urban food security is a significant development challenge in sub-Saharan Africa. However, the field is currently under-researched and under-theorised. Urban food insecurity, where it is considered, has been viewed through a development studies lens that views food insecurity as a household-scale problem. There has been significant focus on food deserts in developed countries as one way of engaging with such insecurity. The food deserts research views food insecurity through a social exclusion and food justice lens. This article introduces the food desert concept to provide a conceptual tool to begin to understand the spatial determinants of urban food insecurity, which are not well captured by the existing framings of food security in the region. Using data from a 2008 household food security survey conducted in Cape Town, the paper highlights gaps in the food deserts approach, most significantly its neglect of non-market sources of food and of household decision-making processes. The paper concludes by suggesting a new approach which takes the household's assets, abilities

and decision-making as the starting point and overlays this with the market and non-market foodscapes accessed by these households.

Time to think urban.....Kenya

Beyer L, Wambani V & Kyalo K. 2013. Field Exchange 46: Special focus on urban food security & nutrition

<http://www.ennonline.net/page/pdf/4439>

This article shares the approach and vision for urban nutrition programming in Kenya from the national perspective. It reflects collaborative work by the Ministry of Health Kenya, UNICEF Kenya and Concern Worldwide. It describes how there is a strong policy framework for urban nutrition action in Kenya. A key area of action is strengthening information systems and analysis in urban areas, to identify who and where are the most vulnerable. Since 2008, the Ministry of Health Kenya (MOH) with support from UNICEF and Concern Worldwide has accelerated nutrition interventions in urban contexts, addressing barriers to vulnerable populations, strengthening health systems and ensuring a package of evidence based high impact nutrition interventions (HINI) reach children and mothers. Assessing coverage for HINI has involved strengthening Health Information Systems (HIS) indicators and Community Based Indicators. Further strengthening of analysis of urban vulnerability has involved:

- Sentinel Site Surveillance for urban areas - Nairobi Urban Health and Demographic Surveillance System
- Assessing coverage for urban areas, which highlight barriers and areas for strengthening response
- Innovations in mapping urban vulnerability are helping to map vulnerable/at risk populations
- Food Security mapping

A second key area of action is acceleration of systems/coverage of HINIs to address disparities in malnutrition in urban informal settlements/slums of Nairobi. Progress in health system strengthening is reflected in improved coverage for Nairobi and Kisumu facilities where HINIs implementation has increased from 26 facilities in 2008 to 102 facilities in 2012, reaching 89% of target health services in urban slums. Coverage for outpatient treatment for acute malnutrition has also improved, with coverage reaching 40 to 50% of target and achieving global Sphere standards (defaulter rate, recovery rate and mortality rate). Coverage assessments have highlighted barriers to future programming that will inform efforts.

Challenges and constraints to urban nutrition programme support in Kenya include:

- Inadequate resources for health and nutrition programmes at all levels
- Fewer partners supporting urban nutrition
- Transient populations with intra-slum migration
- Limited quality maternity services in informal settlements
- Market level influence: price shocks, infant formula use and sub-optimal complementary foods
- Challenges for working mothers and un-regulated day care settings
- Social challenges and insecurity (HIV/AIDS, substance use and violence)
- Need for strengthened analysis for disparities and interventions

Children in an Urban World.

UNICEF. 2012. The State Of The World's Children Report, UNICEF

http://www.unicef.org/sowc2012/pdfs/SOWC%202012-Main%20Report_EN_13Mar2012.pdf

More than half of the world's 7 billion people now live in urban areas. UNICEF's flagship report from 2012 focuses on the situation of children growing up in urban settings. Cities are known to generate economic growth – but not all children are benefiting from urban expansion. In this increasingly urban world, the absence of a sustained focus on child rights means that some children are being left behind.

The locus of poverty and undernutrition among children appears to be gradually shifting from rural to urban areas, as the number of the poor and undernourished increases more quickly in urban than in rural areas. Hunger is a clear manifestation of failure in social protection. However, even the apparently well fed – those who receive sufficient calories to fuel their daily activities – can suffer the 'hidden hunger' of micronutrient malnutrition: deficiencies of such essentials as vitamin A, iron or zinc from fruits, vegetables, fish or meat. Without these micronutrients, children are in increased danger of death, blindness, stunting and lower IQ. The rural-urban gap in nutrition has narrowed in recent decades – essentially because the situation has worsened in urban areas. In sub-Saharan Africa, a 2006 study showed that disparities in child nutrition between rich and poor urban communities were greater than those between urban and rural areas.

Effective interventions to reduce child undernutrition may include micronutrient supplementation (iodine, iron and vitamin A); food supplementation (for micronutrient deficiencies); infection prevention and treatment; growth monitoring and promotion; education about infant feeding practices (breastfeeding and complementary feeding); and school feeding programmes.

Kenya Programme Plan

Concern. 2013. Concern Worldwide

<https://www.concern.net/sites/default/files/media/resource/kenya-annual-plan-2013.pdf>

This is Concern Worldwide's 2013 programme plan for Kenya. It describes how the implementation of the Concern Country Strategic Plan for Kenya 2012-2016 has commenced. The primary geographic focus is on Urban Slums and the Arid and Semi Arid Lands (ASALs). Depending on the availability of resources and in line with the country strategy, the urban nutrition programme will be expanded to the programme in the slums of Mombasa.

The Food, Income, and Markets (FIM) Programme is described. It was designed in 2012 and it cuts across both pastoral and urban settings with the main objective of creating resilience to shocks in a rapidly changing environment among the extreme poor in ASAL areas of Marsabit and Kajiado Counties and urban informal settlements of Nairobi, Mombasa and Kisumu. The programme will focus on four result areas in 2013, specifically, increasing return on assets, improved capacity to participate in and interact with markets, reducing marginalisation and improving adaptability to a changing environment reaching approximately 10,000 beneficiaries in the urban slums and the ASAL areas.

The roll out of IMAM in Kenya's urban slums

Kyalo K, Orengo C & Kopplow R. 2013. Field Exchange 46: Special focus on urban food security & nutrition

<http://www.enonline.net/page/pdf/4448>

The face of poverty in Kenya is changing and the country is facing a new urban crisis. The rate of urbanisation in Kenya is one of the highest in the world. The urban population growth is estimated at 5% annually over the last decade compared to an estimated average 2.3% population growth of sub-Saharan Africa. Over 60% of the urban population in Kenya lives in slums; the slum dwellers in Nairobi reside on only 5% of the land. Urban poverty is

characterised by lack of employment, lower wages and returns from informal employment, and extremely poor levels of basic services such as housing, sanitation, health care and education. There are increasing numbers of 'food poor', those unable to meet all nutritional needs due to expenditure on other basic non-food essentials, and 'hard-core poor', who cannot meet their minimum food requirements even if they allocate all their income on food. The poorest urban-dwellers spend up to 75% of their income on staple foods alone.

Management of acute malnutrition has been included in the district 'Annual Operational Plans (AOP)' since 2008 in Nairobi and Kisumu districts. This has ensured that integrated management of acute malnutrition (IMAM) becomes part of the routine health service delivery in these districts. However, IMAM supplies, such as Ready to Use Therapeutic Food (RUTF), are yet to be funded under the AOP. The work has mobilised and used existing human resources; Community Health Workers (CHWs) and community leaders. Community linkage has been strengthened between the health facilities, inpatient referral centre and community, thus increasing referrals and home follow-ups of acutely malnourished children. A number of challenges encountered by the programme include poor staff and capacity retention, community Health Worker motivation/remuneration, high defaulter rates coverage, and funding.

A number of key lessons learned include:

1. Though slow, working through the Ministry of Health system is a more effective and sustainable approach to delivery of IMAM.
2. Partnerships with private health facilities in provision of IMAM services are critical in increasing access and increased use of protocols by all health providers.
3. In the urban slums, absolute caseloads of malnutrition are often high, even when the prevalence of malnutrition is low. It is important to sensitise stakeholders, especially donor agencies and health staff, on the complex health and nutrition needs affecting urban population and differences with rural populations who until recently, have largely been the recipients of humanitarian programming.

Understanding access to nutritious food by poor urban pregnant women and lactating mothers and their children in Kisumu, Kenya

van der Veen A, Delnoye R & van der Lee F. 2013. Field Exchange 46: Special focus on urban food security & nutrition.

<http://www.enonline.net/page/pdf/4412>

In Kenya, 35% of the population is urban of whom nearly half lives in slums/ informal settlements. Undernutrition is a major problem, particularly amongst the urban poor. This research consisted of two main parts. The first part focused on understanding underlying socio-cultural and economic factors influencing the demand for and access to nutritious food and ultimately food intake. The second part concentrated on understanding the functioning of the agri-food system, taking the results of the first part as an entry point. The overall set-up of the study was of quasi-experimental design involving both quantitative and qualitative research methods. Household characteristics and food consumption data were collected through a cross-sectional survey.

It was found that there was enough and sufficiently varied nutritious food available at the local markets in Kisumu, but affordability (and therefore access) was a problem. Price was an important determinant of / reason for choosing where to buy food, but the possibility to buy on credit or in small quantities were factors of influence as well. Affordability, in particular in the off-season is a problem for local nutritious green leafy vegetables, fruits and other commonly consumed vegetables, pulses, seeds and fish. In the off-season, the cost of a daily food basket is approximately 70% higher than in the peak season, and out of reach of the poor. In

both the high and low seasons, the cost of a nutritiously well balanced and less balanced diet is about the same. Interestingly, if a household spends 70 KES per person per day (the average found in the household survey), it is quite possible to consume a nutritious diet in the high season, but not in the low season. Households said they coped with the high prices by buying smaller quantities, lower quality and/or consuming substitutes. Vendors were found to accommodate these strategies. Insects, particularly termites, were consumed by over 40% of surveyed households in times of availability. However, outside the season, few traders/vendors offered insects and usually termites only. Supply was subsistence oriented and commercialised production hardly exists.

The authors offer some potential interventions. Since women are involved in both purchasing and producing food, the focus was on interventions that favoured building women's capacity. Some potential intervention strategies linking poor urban women to selected food value chains include:

- Increasing purchasing power through collective action by consumers (women in particular).
- Processing perishables that are crucial in diets but are hardly available outside peak seasons.
- Identifying economic participation opportunities for women throughout the value chain.

Seasonal fruits that are largely absent from diets during parts of the year can be easily processed at household or local industrial level and made available at affordable prices in low season. Opportunities for mango processing, with a focus on women's leadership, collective purchase and women's organisations, could be explored together with existing Community Based Organisations (CBOs). Additionally, direct supply relations between producer groups and consumers (CBOs / specific women groups), which already exist for crops like amaranth, would facilitate improved chain coordination and more efficient supply to the target group.

Investing in commercialisation of edible insects would best increase the level of nutrient intake and address malnutrition in the target group, but would require significant investments and a longer term perspective. By contrast, interventions in, for example, the mango value chain would be relatively easy and fast to accomplish, yet have a lesser impact on nutritional intake and the reduction of malnutrition among the target group.

Health & Nutrition

Urban Partnerships for Poverty Reduction (UPPR). 2014. Website.
<http://www.upprbd.org/areasofwork.aspx?ID=6>

Urban Partnerships for Poverty Reduction (UPPR) works in Bangladesh. It uses a community-based approach led by mostly poor and extremely poor women, who are empowered to manage their development to meet their own needs and those of their family and community, and as a result overcome poverty and the barriers to be part of the city. UPPR's theory of change for reducing poverty in poor urban settlements builds upon the understanding that communities themselves are best placed to judge what their main priorities are and who amongst them is most in need of support. In particular, the UPPR approach is about creating space for the most vulnerable members of the communities, especially the poor and extremely poor women, and empowering them to make these decisions and implement solutions.

Many poor households in Bangladesh cannot afford three meals a day; thus, they often fall weak and sick from malnutrition. Mothers and children suffer from low milk supply for breastfeeding, due to poor nutrition behaviour and lack of access to essential vitamins and supplements, leading to illness. In the absence of a stable income, poor households often

cannot cover the cost of doctor visits and medicines in cases of illness, further aggravating the problem of malnutrition. Hence, many households are not able to seek or forced to give up treatment not only for themselves but also for their children. Such failure to improve the nutrition of infants and children has significant effects on their ability to learn and generate income in the future, which makes it difficult for them to break out of the generational poverty cycle.

UPPR has been running an urban food production strategy to increase the number of food-producing households in poor urban settlements. It is expected that this will not only improve household nutrition but also boost household income.

UPPR helps these people by introducing them to Community Development Committees (CDC) and their activities. Their involvement helps them get better access to any training they need as well as contribute their skills to help other members. Through household-level urban food production, members receive technical training on how to grow homestead vegetables and how to start rearing poultry. UPPR members continue to grow and garden different seasonal vegetables that are rich in necessary nutrients and raise hens to produce eggs and meat. As a result, many families can now afford two full healthy meals per day and do not have to worry about the costs of doctor visits and medicines from nutritional deficiencies. In addition to benefit from the sale of their home-grown food, household members participating in urban food production are also able to increase their calorific intake.

In some cases, in which households engage in household-level urban food production, such as sharecropping in the neighbourhood and working towards establishing a small dairy farm to produce milk, their family members are not only healthy from more regular nutritious meals but also are able to sell the surplus from their produce to generate income.

Another direct nutritional intervention is mainly targeted at women, adolescent girls and children under the age of five. This strategy includes the distribution of iron and folic acid (IFA) supplements to pregnant and breastfeeding women as well as adolescent girls. De-worming tablets and multiple micronutrient supplements are supplied to children under the age of five as well. In addition, services such as training, workshops and counselling on nutrition, exclusive breastfeeding, and hygiene practices take place in order to raise awareness of healthy and proper practices.

A specific UPPR programme is detailed below.

Study of UPPR's Urban Food Production Component Increasing Income and Improving Nutrition of the Poor in 20 Cities and Towns

Marshall R, Hossain M, Fortuny G, Geier R & Rahman M. 2012. Urban Partnerships for Poverty Reduction Project

<http://www.upprbd.org/download.aspx?name=19-ATTPUB-24112013110255.pdf>

About one third of Bangladesh's population lives in urban areas and according to the latest national poverty survey 21.3 per cent of the urban population are either poor or extreme poor. The urban poor, especially women and children, often suffer from malnutrition, which results in stunted growth, weakening of the immune system, mental impairment and, in some cases, death. Moreover, poverty of this nature has a lock-in quality guaranteeing the inter-generational transmission of deprivations. A body of evidence suggests that Urban Food Production (UFP) initiatives targeting the extreme poor, can significantly contribute to poverty alleviation by improving the nutritional status of dwellers and/or providing additional sources of income. In this regard, Urban Partnerships for Poverty Reduction (UPPR) developed and introduced in 2009 a series of urban food production schemes, or packages, which have so far benefited 61,949 urban poor households in the 23 towns it operates.

This report presents the findings of a study based on a sample survey conducted during 2011 among UPPR 2009 and 2010 urban food production beneficiaries. The survey aimed to measure the economic and nutritional impact of food production support activities on slum dwellers; and specifically, to provide evidence on the comparative performance of the main food production schemes resourced by UPPR, namely Block Grants, Small Input Support, Community Demonstration and One House One Farm.

Study findings suggest that further programming efforts should focus more on Business Grants and Small Input Support grants, with a specific focus on the extreme poor. Consideration ought to be given to discontinuing the Community Demonstration scheme as production and sales data shows that the results of households jointly co-operating in the same urban food production activity are modest when compared to individual grant transfers such as Business Grants and Small Input Support.

Although the results of this study show the success of urban food production initiatives which target the poor and the extreme poor slum dwellers, these population groups often lack the access to a productive resource base that would enable people to conduct urban food production activities. In this regard, UPPR will continue to conduct advocacy with Government of Bangladesh and local government institutions in order to improve the access of the urban poorest to Government-owned productive resources. This links to wider land tenure concerns, and the need to allow for better use of common and community assets, respecting the need to maintain private incentives, alongside the environmental quality of these assets.

Survey results have shown that households consume 47 per cent of the items they produce, selling the remaining production. In this regard, UPPR will conduct advocacy activities with poor and extreme poor beneficiaries to guarantee an adequate balance between consumption and sale. Consumption and improved nutrition should be the more pressing consideration.

Finally, in addition to conducting further research on individual food production packages for programme decision-making, further efforts should be directed at assessing the real net cost of production. This should allow for the amortisation of all inputs and the recognition of stock levels. Without this research it is difficult to accurately provide a value-for-money appraisal of the various packages. Collecting the necessary data should be prioritised in future surveys. Likewise, efforts should be directed at determining the uses of the income generated by the extreme poor and the poor after selling their production, in order to determine the share of income re-invested in food production, used to purchase food or assets, or deposited as savings, among others.

A Case Study of Community-Level Intervention for Non-Communicable Diseases in Khayelitsha, Cape Town

Puoane T, Tsolekile L & Sanders D. 2013. IDS Evidence Report 27.

<http://opendocs.ids.ac.uk/opendocs/bitstream/handle/123456789/2957/ER27%20Final%20Online.pdf?sequence=1>

This case study looks at the town of Khayelitsha in South Africa, focusing in particular on the health of women and girls in a rapidly urbanising setting. In 2001 the School of Public Health at University of the Western Cape (UWC) commenced the implementation of an intervention to address the burden of non-communicable diseases (NCDs) in a low-resource area of Khayelitsha, an urban township of Cape Town. Although the focus of the intervention was specifically addressing NCDs, improving nutrition is intricately intertwined with this objective, and thus formed part of the programme. The intervention involved working with CHWs and engaging them as change agents to reach out in this community to address NCDs. Community members, mostly females, were screened for individual risk factors and the CHWs were trained to promote healthy lifestyles.

It was found that prior to additional training, the CHWs lacked knowledge on nutrition and the risk of high fat intake. An interactive training programme was employed which aimed at empowering CHWs with knowledge and skills to make healthy food choices and increase their level of physical activity. By the end of their training they were expected to be agents of change who would influence their communities to adopt healthy lifestyles by being positive role models. In addition, CHWs were anticipated to use key messages to increase awareness and promote healthy lifestyles among community members.

Sessions were organised with talks and discussions on healthy nutrition, cooking techniques, the importance of physical activity and other topics. A session, Healthy Cooking Practice, was demonstrated monthly where everyone tasted the food and shared recipes. CHWs acted as role models and agents for disseminating the information in the community.

This study demonstrated the importance of involving CHWs in the initial process of developing a targeted community intervention. The participatory process transformed the CHWs, motivating them to take action to improve their lifestyles, which led to several encouraging moves. However education does not guarantee behaviour modification of community members and CHWs. The environment must be conducive and encourage healthy living. The use of CHWs in the planning and implementation of such an intervention enhances accessibility and sustainability. However, to maintain the benefits of such programmes there is a need to invest in continuous training, provision of resources and lobbying of political leaders for buy-in.

Nutrition

Calcutta Kids. 2014. Website

<http://calcuttakids.org/programs/nutrition/>

Calcutta Kids is a not-for-profit public health organisation committed to the health and empowerment of the underserved women and young children in the Kolkata slum area of Fakir Bagan. This is achieved through the provision of intensive preventive services complemented by effective curative care when required and carried out primarily by locally trained Community Health Workers (CHW), most residing in these very slum areas.

Since 2005, Calcutta Kids has rolled out several initiatives to address malnutrition in Fakir Bagan which have had varying degrees of success. Based on previous trial interventions, it is clear that Maternal and Young Child Health Initiative's (MYCHI's) nutrition intervention efforts need to be revised and expanded in different ways to have a larger impact and capture more children who are in need of additional support in the Fakir Bagan area. Furthermore, a focus on preventive care is necessary to target children before they begin faltering and becoming malnourished.

The first step for community-based nutrition interventions is to mobilise an effort from within the community, so that mothers are completely invested and participating in the growth monitoring and the nutrition status of their children. Calcutta Kids are conducting pilot group meetings with mothers of malnourished children to form support groups that can initiate change from within and develop sustainable solutions to address malnutrition in the community. This pilot group will also help us further determine how best to design a program that works well within the needs and priorities of the community.

The current nutrition programme approach involves the following:

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- Identification of growth faltering and malnourished children
 - Complementary feeding
 - Micronutrients (including calcium, vitamin a, zinc) and deworming
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Maternal Mental Health in the Context of Community-based Home Visiting in a Re-engineered Primary Health Care System: A Case Study of the Philani Mentor Mothers Programme

Tomlinson M. 2014. IDS Evidence Report 67.

<http://opendocs.ids.ac.uk/opendocs/bitstream/handle/123456789/3777/ER67%20Maternal%20Mental%20Health%20in%20the%20Context%20of%20Community%20Based%20Home%20Visiting%20in%20a%20Re-engineered%20Primary%20Health%20Care%20System%20A%20Case%20Study%20of%20the%20Philani%20Mentor%20Mothers%20Programme.pdf?sequence=1>

This document constitutes a briefing summary of the case study of a maternal mental health intervention in South Africa, the Philani Mentor Mothers Programme. It focuses on the health of women and girls in rapidly urbanising settings in South Africa and Kenya. It discusses the particular health conditions that have been identified to affect women and girls in low-income urban settings, with a focus on identifying key 'good practice' and cutting edge interventions.

Infant nutritional status is not solely influenced by food security and caloric intake but influenced by factors such as the health environment, availability of health care and feeding and care practices. Caregiving behaviours such as ensuring adequate hygiene, optimal nutrition through breastfeeding, immunisation, recognising illness and seeking care, along with the rest of responsive parenting and mother–infant bonding that is needed for physical and mental development of a child may all be compromised by mental illness.

The Philani Maternal, Child Health and Nutrition Project was established in 1979 by Dr Ingrid le Roux in the 'informal' settlements on the outskirts of Cape Town as an intervention to prevent malnutrition, rehabilitate underweight children and promote good health. During a 4–6 week assessment and training period, mentor mothers are trained in skills relating to HIV/AIDS, maternal mental health, nutrition, basic health, early stimulation and play, knowledge about community resources and services, and information on grants, and referral routes and mechanisms. Following training, successful applicants are employed and conduct approximately six home visits per day, building supportive and trusting relationships and discussing family and parenting-related issues during each 15–60-minute visit. Ongoing supervision and input from coordinators and local clinic nursing staff ensures the programme's success.

Research indicates that Philani interventions reduced malnutrition. Women receiving home visits were three times more likely to breastfeed exclusively for six months and breastfed longer. Those who previously had a low birth weight infant were half as likely to have another low birth weight infant, compared to controls.

While the mechanisms remain unclear, the data are clear that child growth and nutrition are intimately linked and that this needs to be considered when designing interventions.

4. Further resources

The Philani Integrated Nutrition Programme

Philani. 2014. Website

<http://www.philani.org.za/what-we-do/the-integrated-nutrition-programme/>

The Integrated Nutrition Programme includes a Breastfeeding Support Programme and Medical Clinics. Philani has on average eight Breastfeeding Peer Counsellors (BFPC) who offer support and guidance on breastfeeding to new mothers in as many different state

facilities. They have a clinic day at each of their Nutrition Centres once a week, where clients have direct access to a doctor. They also operate six Flexi Clinics once a month that run from Mentor Mothers' homes, bringing their services closer to those who live in difficult to reach areas. Although on the website it does not state that this programme is explicitly focused on urban nutrition, several of the experts that were contacted recommended including it as an example of successful urban nutrition programming. Combined with the case study above, it may be useful.

5. Additional information

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