Informal food retail in urban areas



The informal sector is deeply embedded in the economic life of lowand middle-income countries (LMICs) – not least when it comes to food. Food retail is a central informal sector activity with a particular defining role in urban food systems, and is critical to the food and nutrition security of urban society. Many families and individuals residing in cities, especially those on low incomes, depend on informal food retail as a source of nutritious food such as fresh fruits and vegetables. What's more, the informal sector, including food retail, offers a livelihood and source of income for many workers.

The sector is not without its challenges. Governments often fail to provide adequate structures and regulation, particularly regarding food safety, which makes it difficult for informal food retailers to guarantee a stable supply of nutritious and safe foods. The Covid-19 pandemic has both hampered the functioning of informal food retailers in urban settings, and emphasised just how reliant people are on it. This factsheet explores the critical role informal food retail plays in urban areas in LMICs, highlighting key characteristics of the sector as well as key challenges it faces.

Informal sector

The **informal sector** can be defined as all economic activities that take place in unincorporated, small or unregistered enterprises. In most cases there is little to no coverage by formal authorities for monetary, regulatory and institutional arrangements such as taxation. However, this does not mean that informal sector activities are necessarily illegal (1–4). Common characteristics of the informal sector are (1,5):

- Formal education is not necessarily needed;
- Those running informal businesses are self-employed, or the business is family owned;
- Low capital investment into the business;
- Low level of adaptation and use of advanced technical innovations. Altogether these characteristics make the informal sector a form of em-
- ployment that is relatively easy to enter into.



The informal sector explained

The informal sector includes a variety of activities in different sectors, ranging from agriculture, primarily in rural areas, to manufacturing, retail, domestic work and others in both rural and urban areas. If recorded these activities would contribute significantly to the Gross Domestic Product (GDP) of many LMICs (2,6). A study looking at 157 countries between 1991-2017 concluded that on average the informal sector would contribute an additional 31% to a country's GDP. In countries where people have a lower average income, the informal sector is relatively larger. If accounted for, the informal sector would in countries such as Nigeria and Tanzania add over 50% additional value to GDP (Figure 1) (2).



The informal sector provides informal employment¹ to more than 2 billion people over the age of fifteen worldwide, which is more than 60% of all global employment (6). On average, the non-agricultural informal sector employs around 70% of all those working in LMICs (7). In 90% of sub-Saharan African countries and 89% of Southern Asian countries, a higher percentage of women compared to men is informally employed (6). Also in cities women are more often active informal employment than men (Figure 2). Within informal employment, women find themselves regularly working jobs with higher poverty risks and lower earnings. They therefore face more challenges and risks than men do as a result of informal employment (8).

1 Those that are **informally employed** enjoy no legal or social protection. The person is not subjected to national labour legislation, income taxation, social protection or entitlement to employment benefits (such as paid annual or sick leave) (6,8).



employment in a selection of cities (2012). Modified from (9).

The informal food retail sector

One activity that forms an important part of the informal sector is informal food retail, which happens at a large scale and is important for both food security and income of those living in urban areas in LMICs. For example, in South Africa, more than 70% of all informal retailers sell fresh, processed or cooked food (10). The informal food retail sector includes a wide variety of retail points (Table 1).

Type of informal food retail point	Main characteristics
Informal markets, also referred to as open or wet markets	Fixed location, fixed stall, sometimes facilities available (such as sanitation and waste disposal). Products sold are primarily fresh but can also include cereals and animal-source foods.
Informal shops	Small shops at a fixed location. Products sold include fresh produce, staple foods and (packaged) snacks.
Street stalls and kiosks	Fixed or mobile stalls or operating without any stall and fixed location. Products sold include fresh produce or cooked, ready-to-eat meals or (packaged) snacks.

Table 1. Characteristics of different types of informal food retail points

Sources: (4,10,11)

The relationship between formal and informal food retail

Formal and informal food retail are often believed to contest for the same market share and customers. In some cases, such as Chile and India, with supermarket growth, the presence of the informal food retail sector has decreased (12,13). Construction of modern food retail, such as supermarket construction is often favoured by (local) governments over informal food retail, as informal food retail is seen as a threat to public health due to issues of food safety and a disturbance in modern city planning (14–16). However, expectations are that for the foreseeable future, in LMICs the formal and informal food retail sector will continue to exist alongside each other (13,17). Often, rather than competition there is overlap and interdependency between the formal and informal food retail sectors. Informal food retailers often source their stock and ingredients from formal food retail points, such as wholesalers, formal markets and supermarkets (10). Formal and informal food retail also target different income groups. While the formal food retail sector is more frequently visited by higher income groups, the informal food retail sector is essential as a source of food primarily for those on low incomes (3). People primarily visit informal food retail points for fresh produce, whereas formal food retail is commonly used for staple products (16).

The informal food retail sector in cities

Informal food retail outlets are primarily located in low-income areas of cities, such as informal settlements, and along busy commuter routes, transport hubs or points with a lot of traffic flow or pedestrians (3,10,18). Many urban consumers depend on the informal food retail sector for their daily food purchases (19). Studies have shown that people of all income groups make use of informal food retail points, although those on low incomes and living in informal settlements tend to purchase more from informal food retail points compared to those on high incomes (3,16). In Hanoi, Vietnam, it is estimated that low-income households make 80% of the expenditures at informal food retail points (20) while in Nairobi, Kenya, 48% of households buy the majority of their food from informal kiosks (17). Street foods are also regularly consumed by many urban inhabitants. In Dhaka, Bangladesh, it is estimated that around 200,000 street food vendors provide snacks or fully cooked meals to over eight million people a day, which is more than half of the city's population (21). A systematic review including 23 studies from nine countries found that in LMICs, predominantly in sub-Saharan Africa, intake of street foods can contribute up to half of daily food intake for adults, and up to 40% for children (22).

Accessibility and frequency

Most households in urban areas of LMICs purchase their food from informal food retail points on a weekly or even daily basis; for instance in urban Southern Africa over 70% of households do this (10). In cities such as Blantyre, Malawi, Harare, Zimbabwe, Lusaka, Zambia, and Maputo, Mozambique, over 90% of households visit informal retail points at least weekly (Figure 3) (10,11). In Maputo, over 50% of households make use of markets on an even more regular basis, visiting them at least five times a week (11). In Thailand, wet markets are visited at least two to three times a week (23). Among those in the lowest-income group in informal settlements in Dhaka, 46% consume street food daily. For the highest income groups in these settlements this increases to 74% (24).

Both groups consider street foods to be highly important for their daily diets. Low-income groups often make most use of informal food retail, which is for example the case in Thailand, but high-income groups also frequently visit informal food retail points (23). In Nairobi, open-air markets represent the main supply of fresh produce for almost half of the highest-income group (17). Proximity, speed of service, freshness of produce and the need to buy produce daily are the main reasons people give to explain their frequent visits to informal food retail points. Lack of refrigeration and a limited budget often force people, especially those on low incomes, to purchase frequently to meet daily needs (10,16,23).





Products and prices

Most consumers use informal retail points, primarily markets, to purchase their fresh produce, such as vegetables, fruits and animal sourced foods like eggs, milk, meat and fish (19). Case studies in Maputo, Mozambique; Nairobi, Kenya; Greater Jakarta and Bandung, Indonesia; and Accra, Ghana, found fruits and vegetables to be the most commonly sold foods at markets (11,13,17,25). In Hanoi, Vietnam, over 400 traditional wet markets supply the urban population with as much as 95% of their vegetables (26). Fresh produce sold at informal retail outlets is often significantly cheaper than in supermarkets, which is especially important for those on low incomes (16). A study in Durban, South Africa, comparing the price of 53 food items found that, for the same quantity and product, the price in formal shops was on average 76% higher than in informal shops. The differences were particularly significant for fresh produce (27).





Advantages of informal food retail for those on low incomes

While formal food retailers often sell in standard or bulk portion sizes, informal food retailers can break down large portions into smaller portions that suit customers with smaller and variable budgets, such as low-income consumers (3,16,18). Some informal food retailers also offer the option to buy on credit (3,16), which for example 32% of street food vendors in Maputo allow (11). Informal food retailers are often located in or in close proximity to low-income neighbourhoods, whereas supermarkets and other formal food retail points are not (18,19). As low-income groups often also lack refrigeration, the easy accessible locations of informal food retail points allow them to visit frequently and purchase food based on daily needs, including affordable fresh produce – essential for food and nutrition security (16,17,19).

Employment and the role of women in the informal food retail sector

Women tend to be over-represented in the informal food retail sector. For example, one study found that 76% of street food vendors in Maputo were female (11). Similar figures were seen in Kisumu, Kenya, and Kitwe, Zambia, where 70% and 58% of the informal food retailers, respectively, were women (15). In Nairobi, Kenya, there are over 220,000 street vendors (not limited to food vendors), of whom 63% are women (4).

Reasons why women and men engage in informal food retail are often primarily economic, and include to earn money for survival, to give their families greater financial security, or because they have not been able to secure work in the formal sector (11,28). As the informal food retail sector is relatively easy to enter, it offers a potential livelihood to those without many other options to earn an income. In many cases entire households rely on the income of one family member working in the informal food retail sector (29). In Maputo, nearly 30% of all food vendors depend on their business as the main household income, and close to 90% of vendors contribute more than one tenth of the household income (11). In Harare and Lusaka, 60% of female street food vendors studied did not have another source of income (10). As women often spend a relatively larger portion of their income than men on basic household necessities, including food, their income is particularly essential for a household's food security (4,30).

Despite the importance of this income for women's empowerment and household welfare, those employed in the informal food retail sector are in a vulnerable position, as they are not protected by any labour contracts, social and health regulations or employment benefits. Their jobs and income also vary considerably in terms of seasonality, security and mobility (3). Over 90% of those that are engaged in a variety of informal activities, including food retail, in low-income countries and 75% in middle-income countries, work on a temporary or part-time basis³ (6). The majority of these are women, who often contribute a large share to the household budget, implying unstable incomes that can put entire families at risk.

3 Temporary or part time employment is defined as less than 35 working hours/week (6).

Challenges for informal food retail and opportunities for improvements

Many people in LMICs, both vendors and consumers, depend on a thriving informal food retail sector, but challenges remain. Issues of inadequate food safety which threatens public health, as well as a difficult position within government and regulatory structures are chief among challenges posed by the informal food retail sector. There are however examples of how cooperation between different stakeholders can help to address such issues.

Food safety and quality

The informal food retail sector is mainly characterised by traditional processing; limited or no access to storage facilities, refrigeration and packaging; and often a lack of clean running water and sanitation. This can lead to issues of food hazards and contamination and have negative effects on food and nutrient quality, especially for perishable foods (17). Vegetables sold in Ghana's urban markets contained unsafe levels of bacterial contamination, while unsafe concentrations of heavy metals were found on samples of fresh produce in open markets in Kinshasa, Democratic Republic of Congo, and Johannesburg, South Africa (31,32). Level of knowledge and awareness of the importance of food safety and hygiene practices among informal food retailers has in various cases been found to be too low (17,33,34). In addition, informal food retailers might lack capacity and incentives to analyse or check on food safety and quality. It is often difficult for them to, without any support, develop methods to inform consumers about improvements in relation to food safety, thus they cannot easily increase sales prices to compensate for additional efforts and investments (34).

Food hazards and contamination causing food safety issues, such as bacteria, viruses, parasites, chemicals and fungal toxins, increase the risk for food-borne diseases (FBDs), which are particularly dangerous for pregnant and lactating women and children under five, who are affected in over 40% of all cases, FBDs are one of the most common causes of sickness and death in LMICs (35,36). In 2010 alone, there were 6 billion cases of foodborne illnesses worldwide, which resulted in an estimated 420,000 deaths (37). Lack of nutrients or very high energy-density of foods can also cause health risks. Studies on snacks sold by food vendors in informal settlements in Delhi, India, found the fat content to be on average as high as 30%, with high levels of saturated fats and trans fats (33). Food safety issues are generally found to be greater in informal compared to formal food retail settings, but informal traders cannot always be blamed for such issues. Many problems arise from a lack in infrastructure, which is often the responsibility of the local government rather than of the informal food retailers (15). Also, it is important to recognize that problems with food safety hazards can arise anywhere along the food value chain and not just at informal food retail points (32,38). Two thirds of 44 street vendors participating in a study in Delhi for example indicated that they obtain their snacks through a third-party wholesaler, rather than producing it themselves (33). Food retailers are therefore not always able to fully control the food safety of the products they sell (32,38). With the help of training and support, it becomes much easier for street food vendors to improve food safety. In turn, this creates a more stable customer base and thereby sustainable income, and at the same time decreases public health risks (see textbox below).

Governance and regulations⁴

Most informal actors fall outside of official governance structures. Regulations on informal trade are often suboptimal, unfeasible and even punitive (19,39). Government oversight of the informal sector is often arranged under more than one department, which does not help to design, communicate or implement regulations in an optimal way (15,19,34). The informal sector, especially in sub-Saharan Africa, experiences episodes of strict enforcement and sometimes even crackdowns whereby vendors are forcefully removed or displaced. The frequency of such events has increased over the last two decades (15,16,40). Determining factors seem to be the extent of political and administrative decentralization as well as the importance of informal vendors to political parties and priorities, such as the chance of being (re-)elected (40).

An attempt by the city authorities in Windhoek, Namibia, to improve the operating environment for vendors by constructing open markets where operators had to pay a fee in exchange for services was not well received. Vendors felt there was unfair competition, as others continued to sell in the market surroundings while making use of the services offered (41). This type of policy intervention, aiming to upgrade informal markets to more formalized ones, needs to be implemented with much attention to inclusivity for small traders. If attention for this group is not sufficient, it risks not helping the informal retailers it targets, for example if fees for market stalls become too expensive or markets are located at unpopular locations. Another policy option, often more successful, is to focus on training and education to improve issues such as food safety (19). Examples from Bangladesh and India demonstrate the possibility to increase food safety of foods sold by vendors by bringing them together with other stakeholders and providing training and sanitation infrastructure to improve hygiene (see textbox below).

Limited financial and technical capacity make it highly challenging for informal vendors to comply with public regulations, especially when requiring high investment and expensive equipment. Capital to make such investments is often not available due to a lack of security of employment and the continued threat of repressive government actions (19,34,35,42). Beneficial regulations and policies that decrease the burden for informal vendors and more support, e.g. in the form of training, will help them to comply with regulations, contribute to urban food security in a meaningful way and at the same time increase stability of their livelihoods (19,42). Increasingly, informal vendors are uniting themselves in groups or organisations, which has in some cases led to important advances. In Durban, South Africa, an association of street vendors provided input into urban planning processes (40). The National Association of Street Vendors of India (NASVI), a collection of different stakeholders, works to influence national level policy to ensure better protection of the livelihoods of thousands of vendors across the country (43).

4 This section combines sources on informal vendors and informal food vendors. As food vending constitutes a significant part of informal vending, this section can be assumed to fully apply to informal street food vendors (40).

Policy interventions to address the challenges of the informal food retail sector

In India, the Food Safety and Standards Authority of India (FSSAI) set up the **Clean Street Food Hub Initiative (CSFHI)** to promote food safety and hygiene among street food vendors. This initiative went beyond the usual regulatory approach and actively involved key stakeholders, such as market associations, private actors and civil society, to play a role in the process of training, improvement of facilities and preparation of certification of the street food vendors. Hubs, of at most 50 street food vendors, can be certified when they comply with basic hygiene and sanitary requirements. This contributes to increased consumer trust in street foods and thereby reduces public health risks while raising the sustainability of street food vending as a livelihood (44).

In Dhaka and Khulna, both in Bangladesh, **kamala carts** (kamala is orange in Bengali) have been introduced as part of a programme run by the FAO with active involvement of city cooperation councils. These orange carts are used by street food vendors that have completed food safety training and have integrated measures such as using clean water and hand sanitizer and storing raw and cooked food separately into their daily routines. So far, results have been positive. Consumers are willing to pay more in exchange for safer food, vendor's income has increased and the first tests indicated a reduction in contamination level of the foods sold at these carts (45–47).

Conclusion

Understanding the informal food retail sector is critical to understanding and transforming urban food systems in LMICs. The informal food retail sector is essential for food and nutrition security particularly for those on low incomes, both in terms of accessibility to food for consumers as well as for generating income of informal food retailers. Compared to formal retail points, informal food retail provides some inherent advantages to low-income households, such as the availability to buy according to daily needs and the affordability of (fresh) produce. At the same time, the informal food retail sector faces several challenges. Improvements are needed to make this key source of employment and income more stable, as well as to drive improved food safety. Governments must recognise and respond to the importance of informal food retail. Formal and informal food retail will continue to co-exist, with each fulfilling different, but equally important, needs of urban communities. When working on improving urban food systems, stakeholders need to actively integrate the informal sector to ensure food and nutrition security, especially for those on the lowest incomes.

References

- Fraser E, Moonga M, Wilkes J. The Role of the Informal Economy in Addressing Urban Food Security in Sub-Saharan Africa [Internet]. 2014. (CIGI Junior Fellows Policy Brief no. 14). Available from: https://www.files.ethz.ch/isn/183213/ cigi_jrf_no14.pdf
- Medina L, Schneider F. Shedding Light on the Shadow Economy: A Global Database and the Interaction with the Official One [Internet]. 2019. (CESifo Working Paper No. 7981). Available from: https://papers.ssrn.com/sol3/papers. cfm?abstract_id=3502028
- Skinner C, Haysom G. The Informal Sector's Role in Food Security: A Missing Link in Policy Debates? [Internet]. 2017. (Discussion Papers No. 6). Available from: https://hungrycities.net/wpcontent/uploads/2017/03/HCP6.pdf
- Skinner C. Informal Food Retail in Africa: A Review of Evidence [Internet]. 2016. (Consuming Urban Poverty Working Paper No. 2). Available from: 10.13140/RG.2.2.33043.37922
- The informal food sector Municipal support policies for operators. Rome: Food and Agricultural Organization; 2003. ('Food in Cities' collection No. 4).
- Women and men in the informal economy: a statistical picture (third edition) [Internet]. Geneva: International Labour Organization; 2018. Available from: https://www.ilo.org/global/publications/books/WCMS_626831/lang--en/index.htm
- Loayza N V. Informality in the Process of Development and Growth [Internet]. Washington D.C.: World Bank Group; 2016. (Policy Research Working Paper 7858). Available from: http://pubdocs. worldbank.org/en/278451476349329578/Informality-in-the-Process-of-Development-Norman-Loayza.pdf
- Stuart E, Samman E, Hunt A. Informal is the new normal Improving the lives of workers at risk of being left behind [Internet]. London: Overseas Development Institute; 2018. Available from: https://www.odi.org/sites/odi.org.uk/files/ resource-documents/11993.pdf
- Herrera J, Kuepie M, Nordman CJ, Oudin X, Roubaud F. Informal Sector and Informal Employment: Overview of Data for 11 Cities in 10 Developing Countries [Internet]. 2012. (WIEGO Working Paper No. 9). Available from: https:// www.wiego.org/sites/default/files/publications/ files/Herrera_WIEGO_WP9.pdf
- Crush J, Frayne B. Supermarket Expansion and the Informal Food Economy in Southern African Cities: Implications for Urban Food Security. J South Afr Stud. 2011;37(4):781–807.

- Raimundo I, Wagner J, Crush J, Abrahamo E, Mc-Cordic C. Inclusive Growth and Informal Vending in Maputo's Food Markets [Internet]. Hungry Cities Partnership; 2020. (Hungry Cities Report No. 18). Available from: https://hungrycities.net/ wp-content/uploads/2020/01/HCP18-2.pdf
- HLPE. Nutrition and Food Systems [Internet]. Rome: High Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security; 2017. Available from: http://www. fao.org/3/a-i7846e.pdf
- Anku EK, Ahorbo GK. Conflict between Supermarkets and Wet-Markets in Ghana: Early Warning Signals and Preventive Policy Recommendations. 2017;07(10):1–6.
- Wertheim-Heck SCO, Raneri JE. A cross-disciplinary mixed-method approach to understand how food retail environment transformations influence food choice and intake among the urban poor: Experiences from Vietnam. Appetite. 2019;142:104370.
- Joubert L, Battersby J, Watson V. Cinderella Markets. In: Joubert L, Battersby J, Watson V, editors. Tomatoes & Taxi Ranks: Running our cities to fill the food gap. Cape Town: African Centre for Cities, University of Cape Town; 2018. p. 57–81.
- Berger M, van Helvoirt B. Ensuring food secure cities – Retail modernization and policy implications in Nairobi, Kenya. Food Policy. 2018;79:12– 22.
- Owuor S, Brown A, Crush J, Frayne B, Wagner J. The Urban Food System of Nairobi, Kenya [Internet]. Hungry Cities Partnership; 2017. (Hungry Cities Report No. 6). Available from: https://hungrycities.net/wp-content/uploads/2017/11/HC6. pdf
- Wertheim-Heck SCO, Vellema S, Spaargaren G. Food safety and urban food markets in Vietnam: The need for flexible and customized retail modernization policies. Food Policy. 2015;54:95–106.
- Resnick D. Informal Food Markets in Africa's Cities. In: 2017 Global Food Policy Report [Internet]. International Food Policy and Research Institute; 2017. p. 50–6. Available from: http://ebrary. ifpri.org/utils/getfile/collection/p15738coll2/ id/131091/filename/131302.pdf
- 20. Baker JL, Gadgil GU. East Asia and Pacific cities: Expanding Opportunities for the Urban Poor [Internet]. Washington D.C.: World Bank Group; 2017. Available from: https:// openknowledge.worldbank.org/bitstream/ handle/10986/27614/9781464810930. pdf?sequence=13&isAllowed=y

- Khairuzzaman M, Chowdhury FM, Zaman S, Al Mamun A, Latiful B. Food Safety Challenges towards Safe, Healthy, and Nutritious Street Foods in Bangladesh. Int J Food Sci [Internet]. 2014;483519. Available from: http://dx.doi. org/10.1155/2014/483519
- Steyn NP, Mchiza Z, Hill J, Davids YD. Nutritional contribution of street foods to the diet of people in developing countries: a systematic review. Public Health Nutr. 2014;17(6):1363–74.
- Gorton M, Sauer J, Supatpongkul P. Investigating Thai Shopping Behaviour : Wet-Markets , Supermarkets and Food Quality. 2009;(April):1–29.
- 24. Etzold B, Hossain A, Rahman S. Street Food Vendingas in Dhaka: Livelihoods of the Urban Poor and the Encroachment of Public Space.
 In: Jahan AK, editor. Dhaka Metropolitan Development Area and Its Planning: Problems, Issues and Policies [Internet]. Bangladesh Institute of Planners (BIP); 2013. Available from: https://www.bip.org.bd/SharingFiles/2QMFyR 0C20181101080444.pdf
- 25. Suryadarma D. Competition between traditional food traders and supermarkets in Indonesia. In: The Supermarket Revolution in Food: Good, bad or ugly for the world's farmers, consumers and retailers? Crawford Fund for International Agricultural Research, Parliament House, Canberra, Australia; 2011.
- 26. Kawarazuka N. Building a resilient city for whom? Exploring the gendered processes of adaptation to change: A case study of street vendors in Hanoi [Internet]. 2016. (Asian Cities Climate Resilience Working Paper Series No. 34). Available from: https://pubs.iied.org/10786IIED/
- Skinner C. Challenging city Imaginaries: Street Traders' Struggles in Warwick Junction. Agenda Empower Women Gend Equity. 2010;81:101–9.
- Habib KR. Understanding Challenges Faced By Street Food Vendors to Maintain Street Food Hygiene in Dhaka City. 2016;4(4):78–85.
- Husain S, Yasmin S, Islam S. Assessment of the Socioeconomic Aspects of Street Vendors in Dhaka City: Evidence from Bangladesh Asian Soc Sci. 2015;11(26).
- 30. Riley L, Dodson B. The interface between urbanization, gender and food in the global south [Internet]. Hungry Cities Partnership; 2019. (HCP Discussion Paper No. 36). Available from: https:// hungrycities.net/wp-content/uploads/2019/10/ HCP36.pdf
- Amoah P, Drechsel P, Abaidoo RC, Ntow WJ. Pesticide and Pathogen Contamination of Vegetables in Ghana's Urban Markets. Arch Environ Contam Toxicol. 2006;50(1):1–6.

- Nuapia Y, Chimuka L, Cukrowska E. Assessment of heavy metals in raw food samples from open markets in two African cities. Chemosphere. 2017;196:339–46.
- Gupta V, Downs SM, Ghosh-Jerath S, Lock K, Singh A. Unhealthy Fat in Street and Snack Foods in Low-Socioeconomic Settings in India: A Case Study of the Food Environments of Rural Villages and an Urban Slum. J Nutr Educ Behav. 2016;48(4):269–79.
- Reardon T, Henson S, Gulati A. Links between supermarkets and food prices, diet diversity and food safety in developing countries. In: Hawkes C, Blouin C, Henson S, Drager N, Dube L, editors. Trade, food, diet and health: perspectives and policy options. Chichester: Wiley-Blackwell; 2010. p. 111–30.
- **35.** Roesel K, Grace D. Food safety and informal markets: Animal products in sub-Saharan Africa. New York: Routledge; 2015.
- **36.** Global Panel on Agriculture and Food Systems for Nutrition. Food systems and diets: Facing the challenges of the 21st century. 2016.
- 37. WHO. WHO Estimates of the Global Burden of Foodborne Diseases [Internet]. 2015. Available from: https://apps.who.int/iris/bitstream/ handle/10665/199350/9789241565165_eng. pdf?sequence=1
- 38. Makinde OM, Ayeni KI, Sulyok M, Krska R, Adeleke RA, Ezekiel CN. Microbiological safety of ready-to-eat foods in low- and middle-income countries: A comprehensive 10-year (2009 to 2018) review. Compr Rev Food Sci Food Saf. 2020;19(2):703–32.
- Grace D. Food safety in low and middle income countries. Vol. 12, International Journal of Environmental Research and Public Health. 2015. p. 10490–507.
- **40.** Resnick D. The politics of crackdowns on Africa's informal vendors. Comp Polit. 2019;52(1):21–41.
- 41. Kazembe L, Nickanor N, Crush J. Containing the Informal Food Sector in Windhoek, Namibia [Internet]. Hungry Cities Partnership; 2019. (HCP Discussion Papers No. 33). Available from: https://hungrycities.net/wp-content/uploads/2019/04/DP33.pdf
- **42.** Ulyssea G. Regulation of entry, labor market institutions and the informal sector. J Dev Econ. 2010 Jan 1;91(1):87–99.
- 43. National Assocation of Street Vendors of India

 NASVI [Internet]. NASVI. [cited 2020 Jun 26].
 Available from: http://nasvinet.org/newsite/ about-nasvi/

- 44. Nemer LE, Rasool F, Demmler KM, Polack S. The Punjab Food Authority: A model for governance to improve food safety and hygiene [Internet]. Geneva: Global Alliance for improved Nutrition; 2020. (Working Paper #4). Available from: https:// doi.org/10.36072/wp.4
- 45. Halliday J, Platenkamp L, Nicolarea Y. A menu of actions to shape urban food environments for improved nutrition [Internet]. GAIN; MUFPP; RUAF Foundation; 2019. Available from: https:// www.gainhealth.org/resources/reports-andpublications/menu-actions-shape-urban-foodenvironments-improved-nutrition
- **46.** Anas AZM. A New Breed of Food Cart Is Improving the Health of Millions of People [Internet]. Next City. 2017. Available from: https://nextcity. org/features/view/bangladesh-food-cart-safetyhealth
- **47.** Setting up safer and healthier street food systems in Bangladesh [Internet]. Food and Agriculture Organization. [cited 2020 Jun 24]. Available from: http://www.fao.org/in-action/setting-up-saferand-healthier-street-food-systems-in-bangladesh/ en/

Contact

GAIN The Global Alliance for Improved Nutrition (GAIN) Rue de Varembé 7 1202 Geneva Switzerland T: +41 22 749 18 50 E: info@gainhealth.org © 2020 The Global Alliance for Improved Nutrition www.gainhealth.org

