



## Policy Brief

# THE ROLE OF CITIES IN SHAPING FOOD ENVIRONMENTS, IN THE FRAMEWORK OF THE EU FARM TO FORK STRATEGY

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# Introduction

The Milan Urban Food Policy Pact was launched in 2015 as a call to action for mayors around the world to address the effects of cities on their local food systems when they introduce systemic urban food policies.

The Food Trails project partners are working to test and provide interesting data on the implementation of food policies. Within this project, cities are trying to bring their visions for more sustainable food systems to life, requiring a clear understanding of food environments.

Based on the work and materials in the comprehensive document “Food environments & EU food policy: discovering the role of food environments for sustainable food systems” created by participants of the Food Policy Coalition, Food Trails decided to include in its work a policy brief to clarify the project’s vision on the food environments approach.

Considering the negative health effects of existing food environments, cities are not only the places where people affected by food environments live, they are also part of the solution.

This policy brief concisely defines food environments, and explains cities’ efforts to transform local food environments while generating positive co-benefits for/in the urban context.

We present the experiences of a group of cities, including Amsterdam, Barcelona and Birmingham, in changing their food environments over the past year to illustrate the potential for local level actions.

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# What are Food Environments?

Food environments can be defined as the “*physical, economic, political and socio-cultural context in which consumers engage with the food system to make their decisions about acquiring, preparing and consuming food*” (1).

Food environments can be seen as the spaces in which people make decisions about food: what food to pick, where to buy it, where to cook it and when, where and with whom to eat it.

Food prices, labeling, advertisements and the availability of food in retail outlets are examples of elements that shape food environments, and therefore shape the decisions made by consumers.

The concept of food environments brings a whole different approach to food policies since it shows that people don't choose, buy, and prepare food in a vacuum but according to the food environment - physical and digital - in which they live and carry out activities. Therefore, daily food choices are shaped and constrained by a range of factors, most of which are beyond an individual's control. Food policies must address all of these factors (2).

(1) HLPE. *Nutrition and food systems. A report by the High Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security*. 2017.

(2) *Discovering the role of food environments for sustainable food systems*. Eu Food Policy Coalition. 2021.

[https://foodpolicycoalition.eu/wp-content/uploads/2021/10/Food-Environments-for-SFS\\_EU-FPC.pdf](https://foodpolicycoalition.eu/wp-content/uploads/2021/10/Food-Environments-for-SFS_EU-FPC.pdf)  
(3) *idem*

Still today, the idea persists that only through food education and awareness-raising, people have all the tools needed to change their eating behavior. This “consumer responsibility” approach highlights how consumers are often the focus of programs and campaigns, while it fails to hold food industries, regulators, and governments accountable for the food environments they shape.

The current food system is not making healthy and sustainable choices easy, and that's why it is urgent for policy makers to adopt a food environment approach and implement effective food policies to turn this situation around. Local governments have a crucial role to play in improving food environments. By designing and creating “enabling food environments”, healthy and sustainable diets become the most “available, accessible, affordable, pleasurable and widely promoted” (3).

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Creating “enabling food environments” means acting on:

- food characteristics (to ensure food is safe, nutritious and sustainably produced),
- food labeling (so that healthy food is made appealing),
- food promotion (to ensure the food that is most marketed and advertised is healthy and sustainable),
- food provision (to make sure food offered through public procurement, e.g. in schools and hospitals, is healthy and sustainable),
- food retail (to ensure the high availability of healthy and sustainable food options in retail outlets and to encourage short supply chains),
- food prices (to ensure healthy and sustainable food is accessible to all),
- food trade and international agreements (to ensure food trade promotes sustainable food systems) (4).

A food environment approach that considers and acts upon all these seven dimensions of food can help in the design and implementation of a consistent and coherent mix of policies that will help to transition to a sustainable food system.

Cities have the possibility, as we will explore further down, to act on several of these dimensions and the capacity to greatly shape the food environments in the urban and peri-urban context.

(4) *ibidem*

(5) *ibidem*

(6) *Farm to Fork Strategy: for a fair, healthy and environmentally-friendly food system. European Commission 2020*

(7) *Idem*

## EU Context

It is widely understood, and the European Union also recognizes, that Europeans’ food environments are not making healthy and sustainable food choices easy. On the contrary, current food environments make it easier to adopt an unhealthy and unsustainable diet (6).

In 2020, the European Commission published the **EU Farm to Fork Strategy** under the umbrella of the EU Green Deal. The Farm to Fork Strategy is the EU’s first policy that considers the food system in its entirety and presents an ambitious roadmap for a transition to sustainable food systems in the EU.

In order to effectively transition to sustainable food systems, the Farm to Fork Strategy recognises the critical role of food environments and aims to create enabling food environments where healthy and sustainable diets are the easy and favorable choice. It also recognises that *“this will not only improve consumers’ health and quality of life, but also reduce health-related costs for society”* (7).

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The main measures foreseen in the Farm to Fork Strategy to improve food environments are:

- Developing an EU Code of conduct for responsible business and marketing practice to promote affordability of healthy and sustainable food options by the food industry and retailers;
- Recognizing the public health and environmental benefit of moving to a more plant-based diet with more fruits and vegetables;
- Setting minimum mandatory criteria for sustainable food procurement;
- Stimulating sustainable farming systems, such as organic farming;
- Improving food labelling (nutrition labelling, origin labelling, animal welfare labelling, and sustainability labelling);
- Setting nutrient profiles to encourage food companies to reformulate their products;
- Revising the EU school scheme to enhance its contribution to sustainable food consumption;
- Upgrading the EU taxsystem to include the true cost of different foods in their price. This is expected to drive the consumption of organic fruits and vegetables.

## Digital Food Environments

Digital technologies have disrupted the entire food supply chain, from GPS-enabled precision agriculture to apps that facilitate food sharing. Over the past several years, digital food provisioning technologies in restaurant, meal delivery, online food retail, and other services like nutritionally tailored meal kits and personalized nutrition apps have altered consumer access to different types of food and changed the way people shop and make dietary choices.

The COVID-19 pandemic increased adoption of online food retail, and while many consumers have reverted to shopping in-person over the past year, the future food environment will be a hybrid of in-person and online experiences.

A key question is the effect of digital food provisioning on diets and health, and the food system overall, to ensure that digital and physical food environments support sustainability, equity, and health. The following five types of effects, positive and negative, are likely to be significant.

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## 1 — New Food Environment Boundaries

In theory, digitalisation can make food provisioning more convenient and quicker, and potentially less expensive, resulting in health benefits for populations with insufficient access to healthy food. Online shopping cuts the time, cost, and physical effort of grocery shopping, facilitating access to groceries and reducing the burden of food provisioning. Yet online grocers may have more limited price promotions making assessment of comparative value or quality more difficult than looking at, smelling, and feeling items on a supermarket shelf or produce bin. For older adults, in-person grocery shopping is a source of social connection and physical activity, and its loss may have emotional and physical impacts. And if online grocers out-compete brick and mortar stores, the eventual impact may be fewer sources of food and less competition.

## 2 — Behavioral Nudges and Buying Patterns

There is some empirical evidence to suggest that online grocery shopping and the temporal disconnection between shopping and receiving food may lead to healthier purchases by reducing impulse buying. Some studies based on field research and experiments have found that the delay between ordering and delivery causes consumers to spend less overall, select healthier items and buy fewer impulse items. A study of online vs. in-store purchases of five unhealthy types of food found that shopping online was associated with lower spending on candy, cold or frozen desserts, and grain-based desserts.

Websites and apps have the potential to convey nutrition information, yet online grocery websites inconsistently provide this information. Consumers hesitate to buy perishable items like fresh produce online more than shelf-stable items that do not vary in quality and freshness. Methods of reinforcing purchasing patterns online, like shortcuts to reorder previous purchases and saved purchase histories, can result in lower variety of food buying.

Having access to multiple online grocers and restaurants expands choice, yet the design of user interfaces may constrain or direct purchasing behaviours through several strategies.

## 3 — Access and Health Disparities

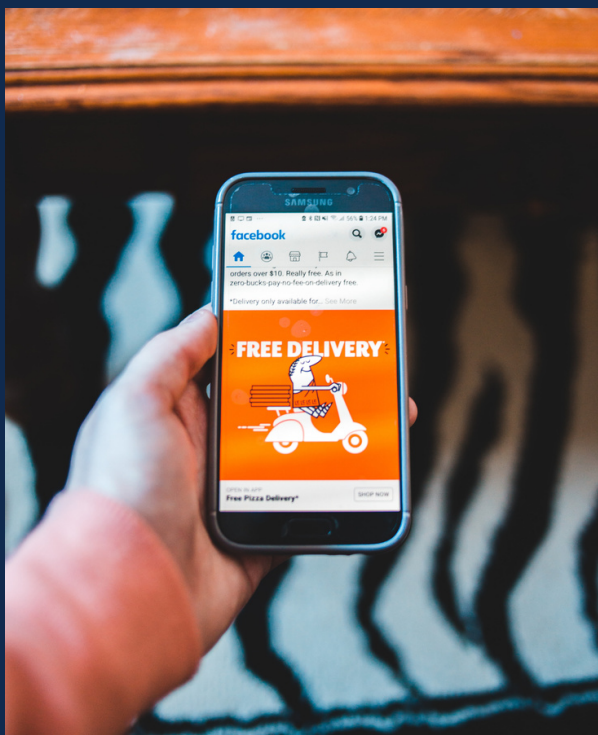
The health effects of online food shopping are likely to vary by sociodemographic status, which is related to disparate access to high-speed internet and the computer hardware. Access to both brick and mortar and online grocers varies by geography and the socioeconomic status of the customer base, particularly between urban and rural areas. Geographic disparities in food retail can be exacerbated by online grocery sales. In communities with a dearth of food retailers, companies like Amazon may be the only online retailer residents can access.

The question of whether online reduces existing disparities or exacerbates them depends on whether and to what extent online food retail is an extension of, rather than a substitute for, brick and mortar supermarkets.

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## 4 — Effects on food labor

One outcome of the rise in digital provisioning is the public health impact on the food delivery workforce. Food delivery workers select, pack, and deliver groceries ordered online, and they pick up and deliver restaurant meals. These workers are typically treated as independent contractors by the companies that employ them, and thus lack basic worker protections. Moreover, a growing body of literature suggests that the apps that control the nature and pace of their tasks can cause mental and physical health outcomes like stress and sleep disorders, and risky behaviours. In addition, the algorithms that govern food delivery work practices reduce worker autonomy, resulting in negative effects on mental health, perceptions of unfairness, and low job and life satisfaction.



## 5 — Environmental Impacts

The environmental impacts of online food provisioning can be positive or negative depending on local geography, how the fulfilment process is designed, and which effects are considered. Fewer online distribution warehouses may facilitate food waste prevention compared to dispersed brick and mortar stores. Urban planning impacts are likely to vary: “ghost supermarkets” (retail locations used exclusively for fulfilment of online orders rather than conventional consumers), the increase in neighbourhood warehouses for delivery companies, and the devaluation of commercial spaces designed for supermarkets may have negative impacts, yet if spaces currently devoted to food retail are reconfigured for other needed uses, the effects may be positive.

It is particularly important for policy makers, and previous efforts to improve the food environment risk becoming less effective, or anachronistic and obsolete. Forecasting the types of impacts that will arise can suggest policies and programs to ensure that the shift online improves health and sustainability and does not exacerbate existing social and environmental inequities.



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# The role of cities in shaping food environments

In the last few decades, the role of cities as “key strategic sites and actors to address the complex socio-economic and ecological issues that constrain food security and nutrition” (FAO, 2019) has been steadily emerging in parallel with their active contribution to construct sustainable food systems.

In this respect, the development of food environments that make available sustainable and healthy diets has by now become an integral part of many cities’ commitment to address the main challenges linked to food system transformation.

Given the remit and limits that cities have, or might pretend to have, over urban planning, regulations and marketing strategies, this section focuses on four of the seven entry points to improving food environments, described above: food labelling, food provision, food retail and food promotion.

Finally, it should be noted that, most of the evidence presented below comes from high-income cities, particularly in the UK and in the USA, because these countries’ interventions have been more long-standing and in turn there are concrete opportunities to evaluate them.

Although the greatest examples of interventions of cities in shaping food environments concern the areas of food retail, only a few cities have developed comprehensive policies/programmes aimed at increasing the availability of healthy foods in stores. In this respect it should be noted that cities’ motivations to focus on addressing food deserts may include political reasons as well as the desire to promote the presence of new supermarkets in under-served areas. Having said that, it is interesting to explore New York City’s approach.

The New York City Department of Health and Mental Hygiene proposed the Healthy Bodegas Programme (8), which provided staff to support small store owners in making interventions that could improve the healthiness of in-store environments.

The Programme, voluntary by nature, included a mix of “intermediate” and “soft actions” and provided incentives (fresh foods display crates and reusable shopping bags to offer to customers) to increase the availability of healthy foods stocks, such as fresh fruits and vegetables and healthier snacks and beverages.

*(8) This practice is now called Shop Healthy and includes independent supermarkets as well as bodegas, but also has an important component that involves the acknowledgement of local residents’ preferences.*

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The Programme provided free training by the Health Department staff on how to change the layout of the shop to increase the visibility of healthy items such as improving the display of fresh fruits and vegetables and placing refrigerated water at eye level.

Evaluations found that the Programme positive effects in terms of increasing the amount of healthier food displayed, even though this translated into a rather limited improvement of customer purchases (Dannefer et al, 2012; Bassett et al, 2014). The City of New York has also distinguished itself with its New York Green Carts Initiative, which was introduced in 2008 by the Mayor's Office. The initiative created 1,000 mobile cart permits available to vendors who agree to sell fruits and vegetables in designated neighborhoods.

Although interesting in theory, this program has been problematic as the vendors cluster at busy intersections; the complications of being a vendor has limited the number of people who have gotten permits to far below the 1,000 cap. It isn't clear that the Initiative has had any measurable impact on fruit and vegetable consumption in those neighborhoods.

Another example is the Healthy Food Financing Initiative (HFFI) which was approved in 2009 by the Federal Government as part of the US Government's efforts to combat childhood obesity and provided funds to support supermarkets in under-served neighborhoods.

It should be noted that while the introduction of Farmers Markets in low-income areas has proved successful in fostering the purchase and consumption of fresh fruits and vegetables, the same cannot be said of supermarkets. Here the findings are more mixed.

Another valuable policy initiative dealing with food retail and procurement is the EU's School fruit, vegetable and milk Scheme launched in 2008. The scheme promotes the consumption of fruits, vegetables and dairy products to children in schools throughout the EU. Unfortunately, the small budget provided by this scheme seriously undermines its potential, alongside an improper uptake by EU member states.

In Milan, providing primary school children fresh fruits in the morning was found to have had a positive impact on children's diets, and on food waste reduction.

Eating-out in restaurants is another area where cities can take action to change and improve food environments. Examples of good practices include the Healthy Dining Programme in Singapore, the "Less Salt, More Health" initiative in Mexico, and a range of initiatives across the UK and the USA where most evaluations have taken place. Evidence from previous practices indicate that the stronger the interventions, the better the results. Strong interventions include restricting the availability of choice in restaurants/fast-foods, such as reformulating recipes, reducing portion size, or changing the default options to healthier ones.

Softer interventions, including the signage to promote healthful options (e.g. posters, menu inserts) and menu nutrition labelling, are found to have done little to change people's behaviour (Crockett et al, 2018), although they may contribute to increasing consumers' awareness on the importance of healthy diets and may incentivise restaurant owners to reformulate their menus. (Gittelsohn et al, 2013; Hillier-Brown et al, 2017).

Importantly, there is evidence that the stronger interventions are also those that are most equitable, as they have an impact both on middle- and low-income consumers (Bagwell 2014; Hillier-Brown et al, 2017).



# Cities' good practices

Many European cities are actively contributing to the global momentum around developing sustainable food policies and are exchanging best practises. In this context, the Eurocities Working Group on Food (WG Food), which gathers 51 European cities members of the network, was born as part of the regionalization process of the Milan Urban Food Policy Pact, and proved to be a very dynamic space to share interesting actions.

Thanks to the WG Food connections, 11 cities joined forces to implement the Food Trails project. The working group also pursues strong advocacy towards prominent EU institutions and encourages cities to do the same at national level on a wide range of policies including advocating for better food environments.

Direct experiences emerging from the most active cities are often shared during in person and online meetings to discuss common challenges with a hands-on approach, while also inspiring other local authorities to start working in the same field.

In a 2022 WG Food meeting, the cities of Amsterdam, Birmingham and Barcelona shared their good practices on promoting healthier food environments, describing different perspectives and starting points, from joint advocacy action for new rules, to education, to school canteens.

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## Amsterdam

The Netherlands is dealing with worrying rates of childhood obesity where 14.7% of Dutch children (between 4 and 17 years old) are overweight, and figures rise to 25% in children coming from low income communities. Wageningen University research shows that 97% of food marketing to children is unhealthy, as well as 79% of weekly offers made by supermarkets are unhealthy.

Addressing these issues became a political priority for the city of Amsterdam which set itself the following goal: no child will grow unhealthy in Amsterdam by 2033. Its strategy takes an integrated approach: working among Utrecht, The Hague, Amsterdam and Rotterdam, to advocate at national level to change key laws; spread a guide on the first 1000 days of life for parents to raise healthy children from the first period of their lives; strengthen an urban approach in the health policies at local level (restaurant permissions, etc.).

The main demands for national and EU legislation were:

- Implement a sugar tax
- Legislation to enable cities to enforce healthy food environment
- Limits to the amount of sugar, salt and fat in products
- New labeling requirements to make different food comparable
- Ban on unhealthy food marketing for children under 19 years.

## Barcelona

Barcelona developed a transformational program to make school canteens healthier and more sustainable. In its first phase, the pilot programme involved 6 schools working to apply WHO recommendations to reduce red meat, use olive oil, increase vegetables, wholegrains, and legumes. The pilot was then extended to 46 schools, representing 12% of the 188 canteens in Barcelona. The added value of this program comes from the introduction of produce from local producers which strengthens the local economy, contributes to fighting climate change and provides healthy food.

In the program, food, education and public health policies worked together, using school canteens as a transformative space and developing a comprehensive approach to shape children's food environment, with the participation of teachers, families, cooks, and school canteens companies.



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## Birmingham

Birmingham is the second largest city of the United Kingdom with 1.3 mil inhabitants, and 46% of the inhabitants are under 30 years old. It is also the most diverse city after London. The city has a strong political commitment to public health and reducing the large disparities in life expectancy between higher and lower-income neighbourhoods.

This led to a specific focus in the Birmingham City Council strategy on health and well-being, for children and young people, trying to tackle obesity and related issues.

The main actions were:

- Planning toolkits, developed with the urban planning department: health impact assessment on any planning applications and development plans (for new projects) to be included in the Birmingham development plan, and in line with the Birmingham food strategy ( e.g. incentives for healthy food retailers, in low income areas, to prevent unhealthy food outlets in areas where children gathers);
- Training for the public workforce: courses and training programs to teach health and well-being contents, on different topics: health, food, nutrition, and physical activity, tailored to different levels.
- Birmingham food basket project: tracking food purchasing behaviours of different groups, data collection on what people are buying, to guide future decisions to guide citizens towards healthier choice.

## Conclusion

Cities have a fundamental role to play in shaping food environments which can generate true co-benefits for sustainability and health.

Understanding that citizens' food habits are largely influenced by their food environments is crucial if cities are to successfully address the barriers that exist to healthy diets and transition to a healthy and sustainable food system... In developing food policies, local authorities should consider their local food system as a complex ecosystem of actors, and take a multi-actor approach that promotes collaboration to shape the social and physical environment in which citizens make food choices.

The Food Trails project also highlights the importance of introducing a mix of policies, focusing on stronger and more constraining measures, of evaluating the impact of measures taken at city level, and of involving a diversity of stakeholders in the discussions in order to tackle such complex challenges.