

# Tackling food poverty! Towards healthy, sustainable, and socially just food environments through inclusive participation

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Citizens living in food poverty can easily get caught up in a vicious cycle. Socioeconomically disadvantaged people often rely on food assistance and are more likely to suffer from diseases caused by unhealthy diets, such as diabetes. They may also experience isolation and lack social networks, as they do not have the financial means to participate in social life. Moreover, this group is often overlooked in decision-making processes regarding healthy and sustainable food environments. To create equitable food environments in urban areas, it is crucial to incorporate the everyday challenges and needs of socioeconomically disadvantaged people. In our collaborative research, we explore the needs of socioeconomically disadvantaged people regarding a healthy and sustainable diet in Switzerland and the Netherlands. The aim is also to develop, in a participatory way, ideas on how to create more socially just and inclusive food environments. Seven workshops with three different groups of 4 to 10 socioeconomically disadvantaged people, complemented with 10 semi-structured interviews, were conducted in Bern (Switzerland). In Almere (the Netherlands), the research included a photo-based study through WhatsApp with 19 participants, seven semi-structured interviews, and two workshops. Preliminary results show that food poverty exists in Bern and Almere, and not only in terms of actual access to food. Food insecurity can be a psychological stressor, affecting mental and physical health and participation in social life, such as not being able to go out to restaurants and meet people outside the home. Our findings suggest that food poverty must be given special consideration when developing urban food strategies and health interventions. Participatory approaches offer a promising pathway towards more socially just food environments. Our participants shared various relevant insights and ideas that we wish to disseminate and valorize. In our presentation, we also intend to reflect on the challenges we experienced in our attempts to reach out to and give a voice to people living in food poverty.

Keywords: food poverty, food environments, social participation, participatory action research

## 1. Introduction

The lack of socially just access to healthy food affects physical health, although the consequences often occur years later (Feichtinger, 1996; Setznagel, 2020). Citizens living in food poverty are, for example, more likely to be at risk of developing diseases, such as diabetes, due to an unhealthy diet (Waskow, Rehaag, 2011). According to Heindl (2016), our diet also has a psychological dimension; it affects our mental health. People affected by poverty are often in need of food assistance. Organizations providing it regularly offer only limited food choices, and food assistance itself tends to contribute to stigmatization and shame (Andriessen, Van Der Velde, 2024). Feichtinger (1996) noted that food poverty can be divided into material food poverty and social food poverty. *Material food poverty* is defined as a lack of financial means to access sufficient food to combat hunger (Feichtinger, 1996). This also means that it is often not possible to comply with physiological and hygiene standards (Feichtinger, 1996; Setznagel, 2020). *Social food poverty* includes a lack of social networks, a lack of opportunities to take responsibility and to take part in decision-making processes, and a lack of participation in cultural customs and practices and thus in social life (Feichtinger, 1996). According to Vilar-Compte *et al.* (2021, p. 16), urban poverty, in particular, “poses unique and diverse challenges and pathways to food access”. The authors (Vilar-Compte *et al.*, 2021) stated that the respective food environment can influence the food consumption behaviour of urban citizens. Therefore, there is a need for research into how we can make food environments in urban areas more socially just.

Everyday food decisions are influenced by many factors. Healthy and sustainable choices tend not to be the most obvious ones. The concept of a *food environment* illustrates the complexity

of food decisions and the variety of influencing factors. Food behaviour is heavily influenced by food environments at home or at work. In the literature, definitions of the concept *food environment* differ widely. Philipsborn *et al.* (2021, p.63) described it as the interplay of different environmental factors influencing individual food practices, such as physical, economic, political, and sociocultural factors. The food environment has also been defined as the interface between the food system and individual eating behaviour (*ibid.*). Turner *et al.* (2018) described food environments as mediating factors in food acquisition and consumption and, according to the authors, it encompasses external dimensions (e.g. availability, prices, and product properties) and personal dimensions (e.g. accessibility, affordability, and convenience of food sources and products). The Scientific Advisory Board on Agricultural Policy, Food and Consumer Health Protection (2020) highlighted that food environments heavily influence food consumption and eating behaviour and encompass the entire behavioural process, from exposition to consumption, with short-term and long-term effects. The advisory board concluded that the influence of food environments is underestimated, and individuals' action control is overrated in both public and political debate. Furthermore, the Scientific Advisory Board on Agricultural Policy, Food and Consumer Health Protection (2020, p. 7) described food environments as fair if they "are health-promoting and have greater social, ecological and animal-welfare compatibility" and thus help to reduce food poverty.

In our research project, we explore the needs, habits, values, and everyday challenges of socioeconomically disadvantaged people in the urban areas of Bern (Switzerland) and Almere (the Netherlands). Our research questions are as follows:

- What are the needs of socioeconomically disadvantaged people regarding a healthy and sustainable diet in Switzerland and the Netherlands?
- How can we create more socially just and inclusive food environments in a participatory way?

## 2. Methodology

In Bern, we conducted 10 qualitative expert interviews with socioeconomically disadvantaged people to understand their individual lifeworlds (Gläser, Laudel, 2010). To explore the issue further and to develop concrete actions, we used participatory action research (PAR). PAR connects society and scientists in the research process and thus represents a new and innovative form of knowledge production (Bergold, Thomas, 2012; Unger, 2014). Within PAR, the people being studied are directly involved as co-researchers in as many steps of the research process as possible, for example by co-developing research questions or collecting and analysing data (Chevalier, Buckles, 2019). In this way, concrete actions can be co-developed and initiated in the PAR that meet the needs of researchers and co-researchers and find acceptance on both sides. Within the participatory research process, we conducted seven workshops with three different groups of 4 to 10 socioeconomically disadvantaged people. Recruitment was facilitated through representatives of community organisations and flyers placed on tables in community cafés, for example. In the Bern research team, we discussed whether we should pay the co-researchers, and decided to do so because we wanted to work together as equals. The organization, design, and evaluation of the workshops were carried out as far as possible in a participatory way. The co-researchers sent us, for example, photo diaries from their everyday food life, mapped their food environment, or brought homemade food to a workshop to share. We discussed individual needs, values, food consumption behaviour and challenges, and discussed concrete actions together. We researchers conducted the final evaluation of all the workshops and expert interviews based on the qualitative content analysis according to Mayring (2015). The software MAXQDA helped us structure the topics.

In Almere (the Netherlands), our research comprised a photo-based study conducted via WhatsApp involving 19 participants. Additionally, seven semi-structured interviews were conducted, along with two workshops inspired by the Swiss study design. The WhatsApp study

aimed to understand the dietary habits of financially constrained households. A pilot study involved eight participants sharing daily meal photos and details, followed by a subsequent study with 11 participants. Recruitment was facilitated through municipal newsletters and community organizations, with participants receiving supermarket gift cards as incentives. Six participants from the WhatsApp study engaged in one-on-one interviews, which focused on both daily food routines and feedback on the WhatsApp study's methodology. Consecutive workshops aimed to deepen understanding of food insecurity. Recruitment challenges were addressed through flexible participation options. Despite low attendance in the first workshop, valuable insights were gained. Inspired by the workshops in Bern, the Almere sessions fostered collaborative problem solving. All collected data, including WhatsApp messages, interview transcripts, and workshop notes, were subjected to thematic analysis. This analytical method allowed for the systematic identification and interpretation of key themes and patterns within the data, thereby enhancing the robustness of our findings.

By using an action research approach, we aimed to empower the participants, making them co-researchers in the process. This helped foster trust and facilitate more meaningful engagement and results. That said, reaching and involving the target group remained a challenge throughout this study. Even though PAR was an effective approach to diving deeply into the personal challenges of socioeconomically disadvantaged people, we faced some challenges along the way. People living in poverty are still stigmatized by society, and therefore the recruitment of participants was challenging and time-consuming. Communication at eye level with the co-researchers during and between workshops was important and meant to use inclusive language and a variety of communication channels, such as electronic mail, WhatsApp, telephone, and the postal service.

### **3. Preliminary results from the PAR study**

Preliminary results show that food insecurity affects not only physical but also mental health. In the following, we present the first results from our PAR study with regard to eating habits and needs, challenges to fulfil the needs, and individual solutions mentioned by our co-researchers.

#### ***Eating habits and needs***

In Almere, the co-researchers sent photos of their eating behaviour via a WhatsApp study. In Bern, too, photos of eating and cooking behaviour were taken by the co-researchers and discussed during the workshops together. These photos were used not only to gain information, but also as conversation starters. In both countries, we saw a variety of meals. Furthermore, most co-researchers wanted to eat healthily and sustainably. Fresh produce and home-cooked food are fundamentally important in both countries. Nevertheless, one older co-researcher in Bern mostly consumed frozen convenience food. Some other older co-researchers in Bern disliked cooking for themselves alone. As they could get coffee and lunch cheaply at a community centre, they sometimes took advantage of this opportunity, seeing eating together with other pensioners as something special. The co-researchers in Almere generally tried to eat healthy meals but did not always manage to do so. The food patterns of the co-researchers in both countries were influenced by culture and habits. One co-researcher in Switzerland explained, "I don't eat that much meat, but in my culture, if you don't cook meat, you're a bad host." Some co-researchers in Almere showed pictures of food eaten at family gatherings, festivities, and parties at work, which sometimes led them to eat more or more unhealthily than they would have wanted. Thus, how meals are consumed depends strongly on the social context, such as eating with family or friends. The co-researchers discussed health issues alongside meal choices often and mentioned, especially in Almere, the risks of an unhealthy diet, including diabetes.

Food was purchased and acquired from different places, such as supermarkets, food assistance organizations, local markets, speciality shops, and others. In Bern, we mapped the physical food environments of the participants. For example, the maps showed their homes

and the places where they most frequently bought food, drank coffee, and ate meals. For some participants, the food acquisition process was an integral part of the day. As one person in Bern told us, "Shortage of money makes everything difficult: cheaper products are less sustainable and I then must shop in supermarkets that I don't morally support." The co-researchers often compared prices and looked for special offers, being willing to put up with inconvenient journeys to several shopping centres. These behaviours take a lot of time and can lead to psychological stress. In line with this, one co-researcher in the Netherlands explained how she visited many different stores to find the best deals, adjusting these to the produce she received from the food aid organization. As someone declared unfit for work, she had more free time to manage her dietary needs, planning her weekly menu around food aid provisions and supermarket discounts. She expressed frustration that discounts target larger households, making it difficult for her as a single-person household. "If I had more money, I would prefer to purchase my groceries at small business owners in Almere. The weekly discounts are helpful but are often targeted towards larger households, which doesn't work for me." She highlighted the trade-off between time and healthy eating, saying, "I trade my time for healthy food because otherwise, it would be impossible to eat healthily on a budget."

We also discussed how the co-researchers informed themselves about healthy and sustainable diets (information behaviour), as all of them seemed to find it important to know where to buy cheap, healthy food. In Switzerland and in the Netherlands, information was primarily obtained from their own families and friends, the internet, and the information on the product.

### ***Challenges in acquiring a healthy and sustainable diet***

The challenges discussed participatorily are manifold and comprise high costs, limited availability, time constraints, mobility restrictions, and gaps in knowledge and visibility, as well as the observation that the existing offer fails to match actual needs. Additionally, some Swiss co-researchers did not have enough money to participate fully in social life, unable to afford to go to restaurants or invite friends, for example. For all the co-researchers, healthy food was often expensive, so cheaper options were chosen and affordable healthy food options seemed to be scarce. In Almere, the participants shared similar sentiments, emphasizing that the cost of healthy food was a significant barrier that pushed them to opt for cheaper, less nutritious options. A respondent highlighted how having lunch outside has become expensive, making less healthy choices like fries more appealing and affordable than healthier alternatives like sandwiches from local lunchrooms. There were also time constraints; for example, balancing time and financial stability impacted dietary choices, and the access to healthier options often required dedicated time and effort.

The co-researchers also mentioned mobility constraints that hindered access to food aid. The strategic location of aid organizations seemed to be crucial for accessibility. The weekly market in the centre of Bern was hardly used. The reasons for this included, among many others, food being too expensive at the weekly market and the distance from the neighbourhood to the city centre being too great. In Almere, respondents explained that visiting food aid organizations often required taking a bus, so that so-called free groceries still cost money. This was particularly important in discussions with a local food aid initiative. The food aid initiative is strategically located in a vulnerable neighbourhood to ensure accessibility for residents, especially those with mobility issues who were reliant on scooters or rollators. Co-researchers in both cities noted that food aid organizations, especially foodbanks, often offered very little variety in their assistance, mainly providing shelf-stable products and thus limiting fresh and healthy options. This resulted in challenges to the maintenance of a healthy, balanced diet, especially for those with limited time. In both cities, the need for foodbanks to diversify their offerings to include more fresh and healthy items was emphasized. Soup kitchens were also reluctantly used, as, although open for all, they tend to appeal to homeless people. Eating in a soup kitchen could be stigmatizing and did not match the needs of all the co-researchers. In some cases, the offers were not well known or were too far away from home. As one co-



researcher said, “If you only eat from solitary facilities, this also has an impact on your sense of independence: you are dependent, have no influence on what you actually want to eat, you just eat what you get.”

Finally, lack of knowledge hindered healthy food choices, and the importance of accessibility and clarity of nutritional information was highlighted by the co-researchers.

In summary, the challenges in both Bern and Almere highlighted the complex interplay of financial constraints, mobility, knowledge, and availability in shaping dietary choices. This illustrates how solutions must address these intertwined factors to improve access to healthy and sustainable food options for all.

### ***Possible solutions***

In both cities, the co-researchers mentioned that access to sustainable and healthy food should be improved. The Almere co-researchers emphasized the importance of improving accessibility by offering cheaper healthy food options or by diversifying food aid and offering more fresh options. Stating time should be recognized as a resource for health-conscious behaviour, they also emphasized the importance of promoting efficient shopping strategies for healthier choices, said that strategic locations of food aid organizations for enhanced accessibility were needed, and thought that mobility needs in service provisions should be considered.

In Bern, co-researchers expressed their desire for fresh food and contact with farmers. We also discussed concrete actions, such as a city map that shows the locations of food aid facilities and cheap and healthy food offers. The only such map that exists covers the city centre only, not every neighbourhood. With a city map, we hope to make existing support facilities more visible and learn where more facilities are needed. Additionally, the co-researchers saw it as an option to enhance knowledge and visibility by improving nutritional education and raising awareness. As a solution, it is important that information about healthy and sustainable nutrition be presented in inclusive, easy-to-understand language. Finally, it is important for the co-researchers to be able to participate and have an active voice. In Bern, one group of participants suggested the joint development of regular events in a community centre. This would include cooking, eating, and providing information about healthy and seasonal food. They also wanted a regular meeting with representatives of the City of Bern, researchers, and the Food Forum Bern.

## **4. Discussion and conclusion**

The results of the workshops in Almere and Bern offer valuable insights into the diverse dynamics of food poverty and food environments. We conclude that, in both cities, a lack of financial means can lead to material and social food poverty and thus to physical and psychological challenges. By examining these two urban areas with their own distinct sociocultural contexts, we can better understand the varied challenges faced by socioeconomically disadvantaged populations. This analysis enriches our understanding and provides information for targeted interventions to address the complex interplay of factors influencing access to healthy and sustainable food environments.

Our preliminary findings highlight the potential of PAR to address complex issues regarding food poverty and food environments. Through PAR, our participants became active co-researchers, contributing valuable insights and perspectives that enriched our analysis and facilitated a deeper understanding of their lived experiences and needs, echoing the participatory ethos emphasized by Bergold and Thomas (2012), Chevalier and Buckles (2019), and Unger (2014). Through the collaborative approach, we were able to better understand the life realities of marginalized communities, and in Bern, for example, we are currently initiating first concrete actions. Additionally, due to close collaboration with the Office for Environmental Protection of the City of Bern, our insights are being taken into account in policy development.

Moreover, our findings align in several ways with the relevant literature on food poverty and food environments. First, our observation regarding the influence of socioeconomic status on dietary choices is in line with the work of Waskow and Rehaag (2011), highlighting the heightened risk of chronic diseases among socioeconomically disadvantaged populations due to limited access to nutritious food. Second, our identification of external factors, such as availability, affordability, and convenience, that shape eating behaviour is in line with the findings of Philipsborn *et al.* (2021) and Turner *et al.* (2018), emphasizing the role of the broader food environment in influencing individual dietary practices. Furthermore, our preliminary results show that the co-researchers are using a diverse range of information sources, such as families, friends, social media, and the internet in general. The qualities of these items of information vary. Thus, it can be concluded that reliable information should be easily accessible and understandable for everyone, as the Scientific Advisory Board for Agricultural Policy, Food and Consumer Health Protection at the Federal Ministry of Food and Agriculture (2020) also emphasizes in its report.

In conclusion, our analyses in Almere and Bern highlight the significance of understanding the diverse dynamics of food poverty and food environments. Through our PAR approach, we have engaged marginalized communities as co-researchers and thus enriched our understanding of their lived experiences and needs. As we move forward, it is crucial to translate these insights into actionable policy recommendations. Targeted interventions should focus on addressing the systemic barriers hindering access to nutritious and sustainable food, such as affordability, availability, and availability of information. Moreover, fostering partnerships between local governments, community organizations, and stakeholders can facilitate the development and implementation of sustainable solutions. By centring the voices of those affected by food poverty, we aim to inform policy decisions and advocate for initiatives that promote equity and social justice in food systems.

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