

CASE STUDY

The impact of the Covid-19 lockdown on consumer access to organic food in San José, Costa Rica

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ABSTRACT. Introduction: The Covid-19 pandemic has led to increased awareness of food security in urban areas and to the role of farmers' markets in providing essential services to consumers. **Objective:** To better understand how Covid-19 affected consumer access to organic food at two major organic farmers' markets in the Costa Rican metropolitan area. **Methods:** In April 2020 after the strict Costa Rica lockdown, 52 organic market consumers completed online questionnaires regarding their purchasing and consumption patterns. **Results:** The majority of participants reported decreasing or stopping visits to organic markets (81%). The most frequent source of food during the pandemic was large supermarkets (52%) followed by online or direct delivery from farmers (15%). The majority of participants reported less access to organic products since the onset of the pandemic (71%). **Conclusion:** Covid-19 has impacted access to organic food at farmer's markets; recommendations include greater support for direct and online delivery of organic products to increase access to health food.

Keywords: Food security, farmers' markets, smallholders, agroecology, pandemic, organic agriculture.

RESUMEN. "El efecto de la cuarentena del Covid-19 sobre el acceso a alimentación orgánica en San José, Costa Rica". **Introducción:** La pandemia del Covid-19 ha llevado a una mayor conciencia sobre la seguridad alimentaria en zonas urbanas y sobre los agricultores como proveedores de servicios esenciales. **Objetivo:** Comprender mejor como el Covid-19 afectó el acceso a los alimentos orgánicos en dos mercados orgánicos importantes en el GAM en Costa Rica. **Metodología:** En abril 2020, después de la cuarentena en Costa Rica, 52 consumidores de ferias orgánicas completaron cuestionarios en línea sobre sus patrones de consumo y acceso a alimentos. **Resultados:** La mayoría de los participantes disminuyeron o detuvieron las visitas a los mercados orgánicos (81%). La fuente de alimentos más común en abril fue los grandes supermercados (52%) seguido por la entrega directa o compra en línea de alimentos de los agricultores (15%). La mayoría de los participantes informaron de un menor acceso a los productos orgánicos desde el inicio de la pandemia (71%). **Conclusión:** El Covid-19 ha reducido el acceso a productos orgánicos en las ferias; recomendaciones incluyen un mayor apoyo para establecer entrega directa de productos orgánicos para aumentar acceso a alimentos sanos.

Palabras clave: Seguridad alimentaria, feria del agricultor, pequeños productores, agroecología, pandemia, agricultura orgánica.



The Covid-19 pandemic has led to a raised awareness of food security. Specifically, lockdowns, loss of employment, and illness of food workers have significantly disrupted food security at the local and global level (Clapp & Moseley, 2020; Zurayk, 2020) and increased the already high numbers of people experiencing hunger (FAO et al., 2020). Covid-19 has furthermore sparked multiple analyses about how this pandemic rapidly revealed current weaknesses, vulnerabilities and inequities in the food system (High Level Panel of Experts on Food Security and Nutrition [HLPE], 2020; International Panel of Experts on Sustainable Food Systems [iPES Food] 2020). One of these weaknesses is the lack of equitable access to nutritious food in urban settings (Ghosh-Dastidar et al., 2014), settings with the largest portion of the world's population that depend on food markets and trade (Food and Agriculture Organization, 2019).

Considering the role urban farmers markets play in providing healthy and nutritious food in towns and cities, it is important to understand the access to, and use of, these venues during market disruptions. Due to the recency of the pandemic, few studies report on how lockdowns have changed consumption patterns at urban farmers markets. The present study examines consumer purchasing and consumption patterns during the onset of the Covid-19 pandemic in Costa Rica.

MATERIALS AND METHODS

To examine the impacts of the COVID-19 pandemic on consumer purchasing and consumption patterns, an online questionnaire was created. Specifically, the invitation to participate in the online anonymous survey was posted on social media sites (Facebook and Instagram) of two of the largest organic farmers' markets in Costa Rica (Feria Verde Aranjuez and Feria Verde Ciudad Colón) as well as on Facebook sites within these communities. The questionnaire was announced after the strict lockdown in Costa Rica (after Easter on April 11th, 2020) and it was closed on May 1st, 2020. The questionnaire was online due to the risks associated with Covid and to reach consumers that no longer frequented markets; markets have stayed open since the onset of Covid. A total of 52 questionnaires were completed during that time (15 only shopped at Aranjuez, 35 only at Ciudad Colón and two at both). The questions asked related to consumer consumption, access, and health. Descriptive statistics were used to analyze the data. This study was approved by the University for Peace Research Ethics Committee.

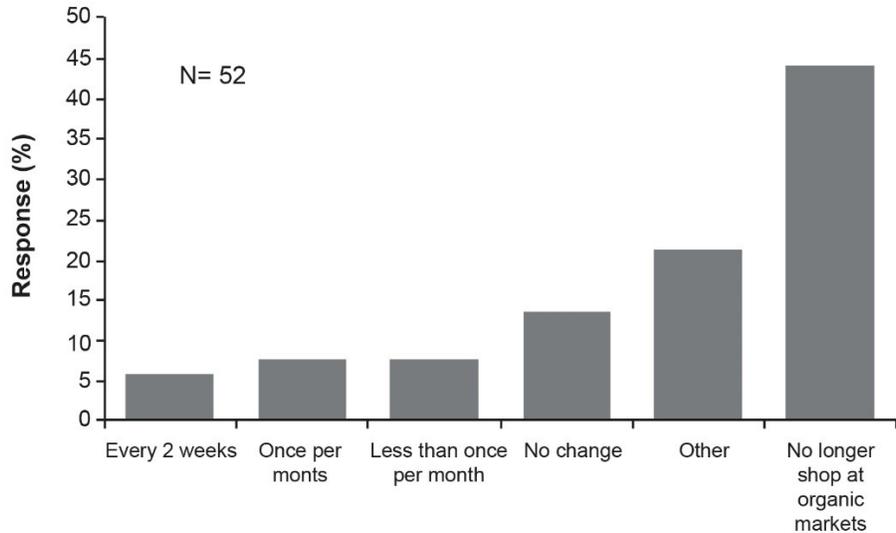
RESULTS

The majority of participants reported shopping at organic markets once per week before the pandemic (50%) and the majority furthermore reported decreasing or stopping visits to the organic markets (80,8%). Specifically, 44,2% of participants reported stopping visits, and only 13,5% reported visiting markets with the same frequency as pre-Covid times (Fig. 1).

When participants were asked to report the most frequent source of food during the pandemic, large supermarkets were the most frequently reported (51,9%) followed by online or direct food delivery from farmers (not specified which farmers; 15,4%; Fig. 2.). Participants were also asked to what degree they depend on supermarkets (small or large) compared to pre-pandemic conditions, and they most commonly reported "somewhat more dependent" (44,2%) followed by "a lot more dependent" (28,8%) and "no change" (26,9%).

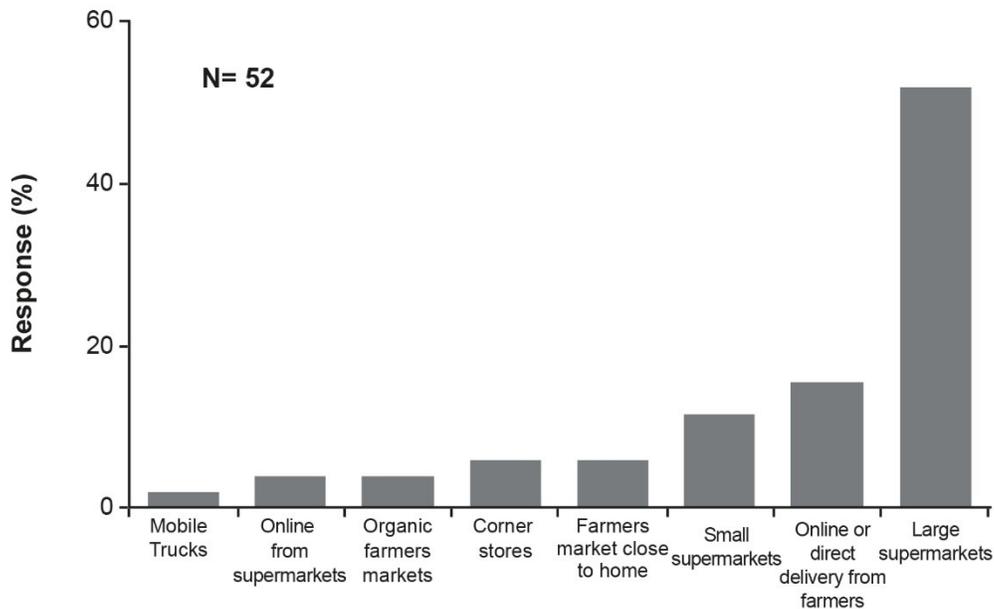
The majority of participants reported less access to organic products since the onset of the pandemic (somewhat less access 44,2% and significantly less access 26,9%). Only 23,1% of participants reported no change in access (Fig. 3.).





Shopping frequency at the organic markets

Fig. 1. Shopping and visitation changes at the organic markets after the onset of Covid-19 (April 2020)



Food sources

Fig. 2. Responses to the question “Where do you most frequently purchase your food”?

The reasons reported for decreased access included: fewer vendors at markets, a lower diversity of products at markets, government transport restrictions during the lockdown, health concerns and living with people at high risk for Covid, and a lack of money to buy luxury products. The reason reported for no change or increased access included: ordering directly from farmers or from online platforms where multiple farmers sell as a collective. The majority of participants said they were willing to purchase directly from farmers (82,7%) but only half of the participants reported having information about direct delivery (51,9%). When asked what services consumers would like to see organic markets offering, many reported direct delivery options.

Many participants reported that their eating habits during Covid had stayed the same (46,2%). Some participants said they were eating better (30,8%) due to working from home and having more time to cook healthy options or eating less in restaurants; some reported a decrease in the quality of their diets (23,1%) due to: stress, eating more processed food, eating bigger portions, less access to quality food.

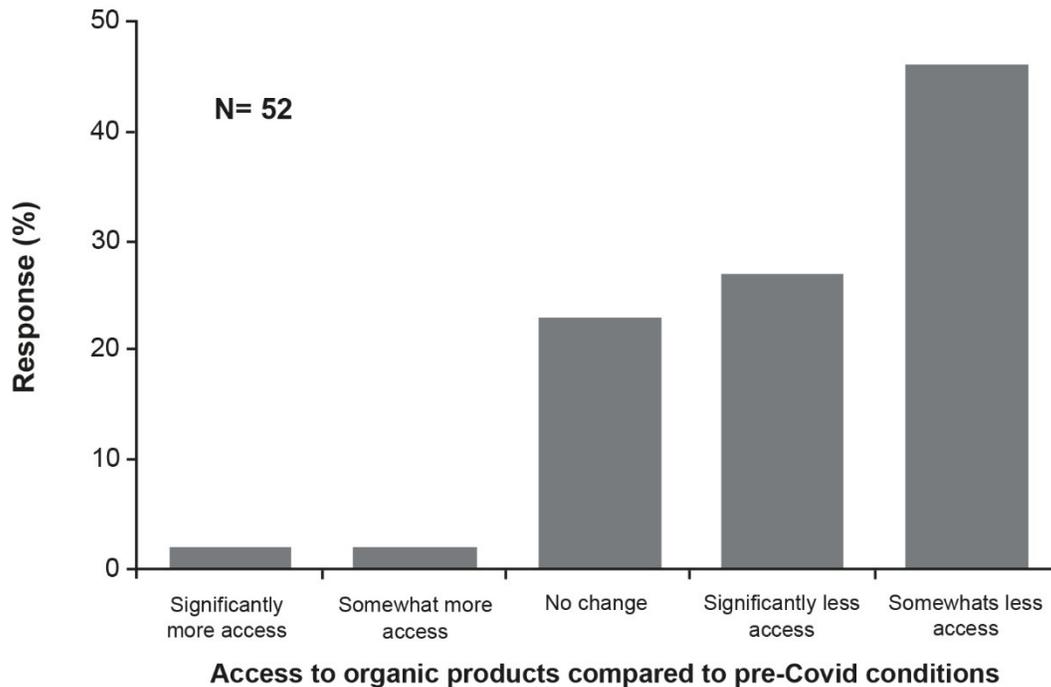


Fig. 3. Responses when participants were asked about their current access to organic produce in April 2020 as compared to pre-Covid conditions.

DISCUSSION

This study provides insight into possible changes in consumer access to organic produce during the strict period of the Covid-19 lockdown in Costa Rica. Organic farmers' markets are important sites of access to pesticide-free food especially considering Costa Rica is one of the world's top pesticide users per land area (Galt, 2014). The key findings of this study are that at the onset of the pandemic, supermarket dependence increased and access to organic produce decreased for the majority of participants. Due to health concerns related to Covid as well as government access restrictions (e.g., driving restrictions on market days), participants reported increasing reliance on online purchasing and direct delivery from farmers. Although many participants diets were reported to stay the same, for some, diets improved due to new work patterns meant that people had more time at home to cook. Other participants reported a decrease in quality of diets due to stress as well as decreased access to quality ingredients. Similar results were found in an online questionnaire in Spain where some reported eating less perishable foods that are considered healthy but others respondents reported eating healthier due because they had more time at home to cook (Laguna et al., 2020).

In addition to the importance of organic markets for consumers, the present study also illustrates how farmers and consumers need to adapt to ensure access to products. One main

concern reported globally is the increased dependence on supermarkets, which, overtime, can negatively affect smallholder farmer economies and even drive farmers out of business further concentrating power in the food chain (Weatherspoon & Reardon, 2003). My unpublished research reveals how farmers in positions of economic marginality have been the most impacted from decreased consumer traffic at farmers' markets; specifically, some smallholders cannot buffer economic shocks (such as that experienced during market shocks during Covid) and have been forced to sell assets such as land, displacing smallholder farmers. The displacement of smallholders can lead to further concentration of land by those with economic privilege, such as those working in the corporate agricultural sector. The latter form of land grabbing can lead to land-use change where food is no longer produced for domestic consumption and instead is produced for export (Borras & Franco, 2012). Displacement of farmers is not new in Latin America (Ohantcabal & Narbondo, 2018) nor in Costa Rica where it is reported as one of the impacts of the growing pineapple export industry (Brown et al., 2020).

In summary, the present study reinforces the need to better support smallholder organic farmers to ensure they continue to provide local products to domestic consumers (Clapp & Moseley 2020; Gemmill-Herren, 2020; Zurayk, 2020). To better support organic food access, the creation of delivery platforms during market disruptions is recommended based on consumers responses in this study; one of the markets (Aranjuez) has created an option to order food online for pick-up on market days. Such delivery platforms need to be inclusive considering some smallholder farmers in Costa Rica have reported challenges in access to the internet as well as to technological support (Sylvester & Little, 2020).

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ETHICS, CONFLICT OF INTEREST, AND FUNDING STATEMENT

The author declares that they have fully complied with all pertinent ethical and legal requirements, both during the study and in the production of the manuscript; that there are no conflicts of interest of any kind; that all financial sources are fully and clearly stated in the acknowledgements section; and that they fully agree with the final edited version of the article. A signed document has been filed in the journal archives. The manuscript was designed developed, analyzed, written, and edited by the author.

The statement of each author's contribution to the manuscript is as follows: O.C.: Data collection, analysis.



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