

Ethiopian Street Foods: Working Conditions and Governance Perspectives. A Qualitative Study

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ABSTRACT

INTRODUCTION: Street foods are foods and beverages as either ready for direct consumption or minimally processed, prepared, and/or sold by vendors and handlers. The objective of this study was to explore the condition and governance of street foods in Ethiopia.

METHOD: A qualitative exploratory study was employed from December 2022 to January 2023 in Addis Ababa, Hawassa, Dire Dawa, and Jimma, cities of Ethiopia. Twelve respondents comprised key informants from selected governmental sectors were interviewed. The purposive sampling method was used to recruit study participants. The number of participants interviewed was determined by the information saturation criterion, and data were collected at the interviewee's offices. Data were collected by using key informant interview technique and audio recorded. An interview guide was used to facilitate interviews and thematic analysis was employed. The Overall data management process was conducted using Atlas-ti V 8 software.

RESULT: The result revealed there were 4 thematic areas these were street food vendors and vending process, policy content and implementation, integration and coordination of sectors, and the way forward. The street food vendors prepared their food in an insanitary manner, absence of common working places for the vendors, lack of due emphasis for the street food vendors in the national food and nutrition policy, lack of formalization and legalization of street food vendors, poor coordination among sectors and institutions work on street food governance, and weakness on the implementation of rules and regulations in controlling street food vendors were the prominent gaps that were identified in the policy.

CONCLUSION: Though Ethiopia has a national food and nutrition policy, the policy doesn't adequately address the street food vending sector. Besides, it is not well communicated to the implementers resulting in poor policy implementation. Quantifying socio-economic benefits of street food vending activities in Ethiopia needs further investigation.

KEYWORDS: Street food, ready-to-eat foods, safety, governance, policy

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Introduction

Street foods are foods and beverages either ready for direct consumption or minimally processed, prepared, and sold by vendors.^{1,2} Mostly, these foods are cheap and accessible for all socio-economic classes¹⁻³ and support the dietary diversity of most people in the informal sector.^{4,5} People opt for various choices for several reasons, including exploring new flavors, socializing, convenience, time-saving, marking special occasions, and a preference to avoid preparing food themselves.^{1,6-9}

Street foods allow vendors to implement a unique menu while using simplified techniques for preparing meals, and provide an alternative to homemade food.¹ They contribute significantly to fulfilling the nutritional requirements of individuals residing in urban and small-town areas across various developing and developed nations, including tourists.^{2,10} Globally, street food consumption is growing substantially,^{3,11} especially in countries where unemployment is high, wages are low, and job opportunities are limited.^{12,13} This business can be operated on a fixed or mobile basis, in a market or other public spaces.²

Good hygienic practices and the good conditions under which food is prepared also positively affect the wholesomeness of food.¹⁴ Street foods have been linked with numerous food-borne illnesses, especially in developing countries,^{3,12,15} due to a lack of food safety knowledge, poor attitude toward food safety among vendors, low socio-economic status of the vendors, poor hygienic sanitation status of working environment, limited food safety regulatory mechanisms, gaps in the operations of food safety regulatory institutions and the laws governing food safety, and non-compliance or ignorance of hygienic practices when preparing and selling food.^{2,6,10,12,15-17}

Despite street food vending being regarded as illegal in many countries, the sector has experienced significant growth, and it has been the single largest employer in the informal sector during the past few decades.¹⁸ Food regulatory bodies play an important role in the field of public health and contribute significantly to the health of populations in a variety of ways.¹⁹ Street foods have become popular in major towns of Ethiopia and provide a source of lively hoods for the country's urban



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poor.²⁰ To ensure food safety anywhere on the globe, appropriate legislation and adequately resourced institutions to enforce these legislations must be in place.¹²

The oversight of food safety and quality regulation in Ethiopia is a collaborative effort involving the Ministries of Health, Agriculture and Natural Resources, Trade and Industry, and the Ethiopian Quality and Standards Authority. Nevertheless, there is a need for a clearer definition and delineation of the roles and responsibilities assigned to these governing bodies to prevent potential overlap and duplication of functions.²¹ Moreover, there is insufficient coordination and collaboration among various stakeholders. Additionally, the continuous emergence of novel food products and evolving manufacturing and distribution methods underscores the need for regular updates to food laws and regulations. This ensures alignment with contemporary approaches to maintaining food quality and safety standards.²²

Studies from Ethiopia have shown that the handling practices of food vendors in both hotels and on the streets are poor.^{23–25} Other studies have documented the presence of antibiotic-resistant organisms.^{23,26,27} These previous studies have extensively focused on the hygienic practices of street food vendors and the microbial safety of street foods none of them were considering the existing institutional and legislative frameworks that may have an impact on food safety and quality. Hence, the objective of this study was to explore the condition and governance of street foods in Ethiopia.

Method

Study setting

The research was carried out in 4 prominent urban centers in Ethiopia, namely Addis Ababa, the country's capital with a population of 3 860 000, Hawassa, the regional capital of Sidama region, situated 275 km south of Addis Ababa with an estimated population of 400 000, Jimma, a zonal capital city located 345 km west of Addis Ababa with a population of 200 000, and Dire Dawa, the capital city of Dire Dawa administration, found 475 km east of Addis Ababa with an estimated population of 300 000. These cities experience significant population growth and host extensive industrial parks that employ a large number of young individuals at low wages. Owing to Ethiopia's high inflation and the time constraints preventing home-cooked meals, residents are compelled to opt for affordable and readily available street foods to meet their basic physiological needs

Study design, and period

A qualitative exploratory study was employed in Addis Ababa, Hawassa, Dire Dawa, and Jimma, towns of Ethiopia from December 2022 to January 2023.

Participant selection and sampling

The study enlisted individuals from diverse governmental branches responsible for overseeing food safety regulations, particularly concerning street foods. Participants hailed from health, agriculture, trade, industry, and food and drug regulatory bodies. Selecting 12 key informants involved purposeful sampling techniques, considering their office roles, experience, relevance to street food safety, and policy input. Discussions with sector leaders in various towns guided the selection process. Before each interview and recording, explicit verbal consent was secured from all participants.

Data collection process

The data were collected at the interviewee's offices in a quiet, secure, and comfortable place with minimum sound and voice disturbance to maintain the quality of the recording and facilitate open discussion. The time and place of the interview were determined by the interviewees.

The study participants were approached by the principal investigator and one research assistant who had research experience in doing qualitative research using a face-to-face interview in their offices.

Data collection process

An interview guide was used to facilitate interviews. All interviews were conducted in Amharic language (Local language) and audio recorded. The interviews lasted for an average of 50 minutes with the shortest 40 minutes and the longest 60 minutes.

The interview guide included discussion points related to the main research questions, to explore the practice of governing street food vending activities in Ethiopia. The data were collected at the interviewee's offices in a quiet, secure, and comfortable place with minimum sound and voice disturbance to maintain the quality of the recording and facilitate open discussion. The time and place of the interview were determined by the interviewees. The study participants were approached by the principal investigator and one research assistant who had research experience in doing qualitative research using a face-to-face interview approach.

The interview guide was pretested and the necessary corrections were made. All interview records were transcribed and translated into the English language for analysis. Interview notes were used to elaborate the transcriptions to catch up on the context of the interviews.

Data analysis

Thematic analysis was employed to analyze data using Atlas-ti software. Two individuals have performed the coding independently after repeated readings of the transcribed documents.

All tape-recorded data interviews and field notes were independently transcribed verbatim in the English language and imported into Atlas.ti8 software for coding. Then the codebook with its definitions, was prepared in a separate Word sheet document.

The overall process of data analysis used an inductive approach, that is, a data-driven coding process through the discussion of the researchers to identify themes. The coding book was developed by 2 independent individuals after crossing and agreeing on a codebook using inductive coding then developing a memo and finally, themes were generated. The themes were constructed based on the natural meaning of the categories. The investigators cross-checked the themes that emerged after analysis with the respective quotes. The findings were reported by a detailed description and interpretation of the meanings of the themes.

Ethical consideration

Ethical clearance was obtained from the Jimma University Institute of Health Institutional Review Board. The Board provided ethical approval after reviewing both the protocol and consent forms. A support letter was given from the Department of Environmental Health, Science and Technology of Jimma University, and given to towns' administration offices and informed verbal consent was obtained from each study participant. Confidentiality was ensured by collecting the data anonymously.

Result

A total of 12 in-depth interviews with different governmental sectors who work on the governance of street foods were conducted. Only 1 respondent was female and all of the respondents were married. About half of them belong to the age group of 25 to 29. The mean age of the clients was 29 ± 5 years. The minimum and maximum ages of the participants were 22 and 37 years respectively. Regarding their educational status, half of them had BSc degrees and half of them had MSc/MA in their education. The findings of the study are presented according to the following 4 overarching major themes that emerged from the data analysis. These are (i) street food vendors and vending process, (ii) policy content and implementation, (iii) integration and coordination of sectors, and (iv) the way forward.

Theme 1: Street food vendors and vending process

Participants reported that street food vendors in the study area exhibited poor personal hygiene, lacked regular working places, prepared food in unsanitary conditions, and, due to their low educational level, did not ensure safe food preparation. One respondent said that "...they (street food vendors) didn't have common places for working; they can work anywhere, if today is here, tomorrow will be somewhere else." (KII 8). Furthermore, because most of the vendors have low socioeconomic status,

they are unable to build houses out of locally available materials to protect the prepared food from dust and flies. One respondent says "...they (street foods) are not good enough since both the vendors and the consumers have low socioeconomic status and they are not bothering the safety issues rather they (street food vendors) are focused on the money that they paid and received." (KII 3). This idea is also supported by another respondent "...since the majority of street food vendors are from the poor socioeconomic class, they are unwilling to do what we want because they do not have enough money." (KII 2). As they are working on the roadside, mostly they create congestions of roads and probably they can be a cause for road traffic accidents. A participant explained that "...the first thing that we told the street vendors are doing such activities on the sidewalk of the road is against the law. The second step is to stay away from them while on the street. Since it is a pedestrian area and these illegal activity forces pedestrians to use the vehicle roads, which may result in the occurrence of various car accidents." (KII 8).

According to the interviewee, another factor contributing to the occurrence of poor safe handling practices by street food vendors is the street food vendors' incorrect perception of the regulatory bodies as they think of them as punishers. The following 2 quotes elaborate on this statement. "...When we control, supervise, and monitor them, they believe we are only there to force them to stop working, not to ensure the preparation of safe and quality foods." (KII 1). The other participant also mentioned that "...the main challenge we faced was food handlers' negative attitude towards our employees, and they did not accept our advice positively. The main reason is that they believe we came to them solely to close their business. Food handlers may occasionally take negative actions against our employees." (KII 13).

The informants described that, the other factor that complicates our jobs and contributes to the presence of unsafe food preparation is their working hours. These foods are mostly prepared and sold outside of normal government office hours. The following 2 quotes describe well

"...the challenge that we faced not to control their activities properly is their working time, most of them work their selling activities outside the government office hours that challenge us to maintain our control over them." (KII 2). The other respondent said that, "...most street food vendors started their work early in the morning and at down time as it is known, this time is not an official working hour and all of the workers went to their home at that time, there is no inspection but street food vendors undergo their business without any supervisor that monitor and control them." (KII 8).

Theme 2 policy content and implementation

Recently the Ethiopian government launched a national food and nutrition policy, but its implementation is questionable because the majority of stakeholders are unaware of its existence. As a result, the policy is not implemented as needed. On the knowledge of the policy, one of the respondents pointed out "sorry I have no idea on this issue that is the presence of national food

and nutritional policy, since I didn't come across it. As of my best knowledge, there is no policy or law which focuses on street food safety." (KII 1). The other respondent also said "... unfortunately I haven't seen the national nutrition and food policy and I can't say anything about it currently. The reason why I didn't know is due to the absence of any document related to the policy either personally or at institutional level." (KII 10). Similarly, the other respondent replied "... I didn't know the national food and nutrition policy and also I didn't see it. Hence I can't say anything on this issue." (KII 9).

Regarding the inclusiveness of the national food and nutrition policy toward street foods, the interviewee, who knows the national food and nutritional policy, said "... in my opinion, the policy didn't adequately include street foods and instead focuses on legal institutions." (KII 13). The other respondent also replied "I reviewed the policy and discovered that there is an issue with some points, particularly street foods, which are not covered exhaustively; the policy only covers street foods in one paragraph." (KII 15). The national food and nutrition policy points out that there is an independent institution that will be established by following the governmental structures of the country. Regarding this point of view, respondents have 2 ways of saying it. The first group is in favor of it, while the second is opposed. One of the participants from the support group mentioned that "... in my opinion, I support the idea of an establishment of a new institution that focuses and control any food and food-related products safety and quality issues. The reason why I am saying is, food is anything that we directly consume. ..." (KII 4). The other supporter puts his idea by saying "... in my opinion, rather than establishing a new institution to implement the national food strategy, the National Advisory Board should be established. Creating an independent board to oversee the safety and quality of food throughout the food chain." (KII 15).

The second group opposed the establishment of new governmental structures, arguing that it is preferable to create favorable conditions for existing sectors to work together in a coordinated manner, especially in this resource-constrained country. "... In my opinion, there is no need to establish new governmental institutions; rather, the existing structure should be strengthened by increasing the sector involved in controlling and monitoring street food vendors. In our case, for example, the chamber of commerce should be included in the task force. The current Food and Drug Authority should be strengthened and coordinated. It is preferable to delegate all duties to the FDA and have the office coordinate all sectors properly than to establish a new institution." (KII 8). The other respondent also put his opinion that "... in my opinion, the existing institutions should work together in a coordinated manner. In this impoverished and resource-constraint country, it is more important to coordinate the duties and responsibilities of various sectors than to expand the governmental structure" (KII 12).

Theme 3 integration and coordination of sectors

It is challenging to manage the street food vending activities with just one sector so there must be some other stakeholders

who plan and execute in a coordinated way. The national food and nutrition policy sets and defines the sectors to be engaged in implementing the national food and nutrition policy the respondents were asked about this issue by asking which sectors are engaged in controlling the safety and quality of street foods. In every region of the country, they responded in a largely consistent and similar manner. One of the respondents described "The sectors engaged in the control and follow up of street foods are health and health-related service directorate of the health sector, trade, and industry, police and security offices, food and drug authority, and town municipality are the main actors." (KII 1). They carry out their work in 2 ways: through the concept of risk-based or by hearing some rumor, as the respondent mentioned. "... it is difficult to address all of the street food vendors because they are numerous and located throughout the city. As a result, we are forced to use risk-based inspection by categorizing establishments where a large number of people are served and, if there is rumor, where vendors are working in unsanitary conditions." (KII 2). Regarding the nature of sector integration, even though there is a concept in the national food and nutrition policy that said sectors should be doing in a coordinated manner, almost all of them responded that there is poor integration among sectors. One of the respondents replied "... though there are some preliminary activities, there is a gap in doing so in a coordinated manner. We did it as a campaign 2 or three times a year, but not regularly throughout the year." (KII 10). Another respondent mentioned that "... we have no well and strong relationship and integration among the stakeholders on the controlling and monitoring activities of street food vendors. ..." (KII 16). The main reason for this is a lack of terms of reference or a code of practices among sectors before beginning work. For example, the 2 quotes below clearly describe the situation. "We have no terms of reference or any kind of code of practice while controlling and inspecting street food vendors. Generally, there is no proper and formal communication, coordination, and integration among the sectors due to the absence of any kind of interface, code of practice, or terms of reference." (KII 14). Another reason for the lack of well-defined integration among sectors is the limited number of professionals; because they have many responsibilities, they may not consider such an integration work as described below. "There is a scarcity of professionals in the area to conduct, inspect, control, and monitor these informal sectors. ..." (KII 6). Besides this, the allocation of non-professionals to the position creates another burden for the lack of integration among the sectors. It is supported by one respondent's idea which says "... there is a scarcity of qualified, and skilled professionals. Allow us to take over our office. We are a group of three, and two of my colleagues are non-professional. ... As a result, they lacked adequate knowledge on how to conduct and organize training on food safety and quality. As a result, a single person is responsible for the entire town which makes a burden on one person." (KII 3).

Theme 4: The way forward

The respondents were asked to express their thoughts on what should be done to improve the safety and quality of street foods, as well as the overall vending process, and they did so in a variety of ways. According to their response, the way forward can be divided into 3 categories: government, street food vendors, and consumers. Concerning governmental activities, one respondent replied that “... *the first thing that is expected from the government is the development of law, policy, strategy, and the assignment of regulatory and controlling bodies, followed by the creation of awareness on food safety and quality issues through training for both vendors and consumers.*” (KII 9). The other respondent said that “... *there should be strict policy, rule, and regulation to monitor, inspect and regulate them.* . . .” (KII 6).

The other respondent put his idea by saying, the government should strengthen the controlling mechanisms. “*The controlling mechanism should be done with strong coordination and with great attention from higher officials to lower officials; first, all sectors should be doing things in an integrated manner.*” (KII 9). The other point raised by respondents that fall under the policy category was that, in addition to integration, there should be an establishment of a street food vendors association, enforce the street food vendors to be legal, and provide a temporary license for them to facilitate proper supervision. Furthermore, the government should provide a common working area where they can work properly. One respondent said that “*the government should organize them into a union or association and facilitate and provide working space for them. Furthermore, the government offers them business training and credit opportunities. When providing and organizing the working environment, the government should provide basic infrastructure such as water, electricity, and other sanitary facilities. The microfinance office should educate people about the importance of saving and organize them into a union or association.*” (KII 12).

Concerning the way forward for street food vendors, various ideas were raised as to what they should do to improve the safety and quality of the street foods that they prepared. Some respondents suggested that vendors should upgrade themselves by attending various short-term food safety trainings, purchasing quality raw materials, and learning how to prepare safe foods for their customers. One respondent replied “... *Vendors should know and implement the principles of safe food handling and preparation is handling food safely, using safe water, keeping personal and environmental hygiene, preventing the prepared items from any contamination, and serving hot foods for the consumers.*” (KII 11).

Regarding the consumers, the respondents raised different issues and it is summarized as “*the consumers should select the vendors who safely prepare the foods.* For example here in Dire Dawa in the market area, there is the practice of selling bread in the market without any care and cover. In this case, the customer didn't eat such kinds of food and tell to the vendors that we buy from you if you cover the food.” (KII 16). Besides this, other respondents said that “*Customers should give appeal to health bureau and the*

concerned governmental stakeholders if they see wrong things in preparation and handling of street foods. In addition, consumers should not go to the vendors who prepare in unsanitary conditions and ways.” (KII 1).

Discussion

This study investigates and explores the condition and governance of Ethiopian street foods, and also provides a rich, comprehensive image as well as suggestions for policy implication. The study clearly showed that the vendors lack consistent, and legitimate spaces to conduct their businesses, facing frequent harassment from governmental authorities. Consequently, they struggle to secure a safe and hygienic environment to sell their products. This is also true for most African and other continents of street food vendors.^{2,10,12,28-31} This could be because the government regards this business as illegal and informal. This is also true for Bangladesh since the street food sector is not considered a legal entity, food safety control activities are limited and found everywhere in the town.⁶ Researchers suggested that though street food vending practice is an informal activity, it contributes significantly to job creation and provides consumers with convenience, variety, and low-cost food items.^{6,18} Therefore, the government needs to prioritize these individuals, classifying them formally and providing suitable and convenient workspaces, along with a rigorous inspection and control system.

The finding also depicted that the street food vendors do their business on the available open space and sidewalks of the roads which makes pedestrians exposed to different road traffic accidents. This is true also for Bangladesh in which 68% of the vending stalls were located on the sidewalks of the town.⁶ Similarly to the study in Ghana³² and in Zimbabwe.²⁸ Another researcher also revealed that roadside foods, exposed to dust and vehicle exhaust, may pose chemical food safety risks.¹⁷ Besides, food must be prepared and sold in a clean environment that is not close to Opened gutter, Public toilets, or choked gutter including Places that could obstruct public movement.³³

The primary factor influencing street food safety is the impoverished economic state.¹⁰ Many vendors in the study, as reported by informants, had low socioeconomic status and were unable to have a good house structure. This finding is also supported by Bouafou et al.⁶ If the house has no good structure, it may not protect the foods from contaminants as a result the vendor may not be selected by the consumers.¹ Another researcher from Poland also stated that personal preference and workplace quality influence the selection of street food vendors in Poland.²

Strict and frequent inspection of street food vendors by governmental bodies can improve the safety of street food and the significance of supportive supervision for optimal performance is widely acknowledged.³⁴⁻³⁶ Implementing government rules can enhance health and food safety in informal food vending.³⁴ The study revealed a lack of positive vendor-government

relationships across various areas, aligning with a previous study in Ghana. In both cases, inadequate communication structures, coupled with vendor distrust of regulators, negatively impact regulatory effectiveness.³⁶ It is also true for Zimbabwean street food vendors.²⁸ However in Nigeria, a positive relationship fosters vendors' commitment to personal hygiene, encouraging safe food preparation without the need for enforcement.³⁴ In Kenya, street food vendors often operate their businesses informally with minimal regulation from the government.¹⁷ In Ghana, Environmental health professionals are doing supervision under insecure conditions.³⁶ Due to this, regulators have become less motivated, feel undervalued, and lack a sense of belongingness. This may affect the safety and quality of foods delivered by street food vendors.

The other thing that makes the street food safety inspection and control difficult is their working time. As the findings of this research revealed, the majority of them do their business outside the governmental working hours during down and desk time. It is similar to Ghanaian street food vendors they did their work at night as they have some societal norms that guides them to sell at a particular time.³⁴

Consumers' growing interest in safe, quality, and nutritious foods, coupled with public health concerns, has led to the establishment of food safety standards and policies.^{12,19} In Ethiopia, Food safety standards are regulated by the Ethiopian Food and Drug Authority through registration, licensing, and inspection of food.³⁷ Despite the recent launch of a national food and nutrition policy, most implementing sectors lack awareness of it, leading to low policy implementation. This aligns with research in Ghana, where existing frameworks are hindered by low awareness among implementing institutions.³⁸

Despite the existence of a national food and nutrition policy, it's not adequately addressing street food safety and quality. Similarly in Ghana, the law lacks specificity concerning street food activities. This results in regulators having increased discretion in enforcement, leading to a lack of consistent government oversight to maintain the safety and quality of street foods.³⁶ This is also true for Ecuadorians,³ Nigeria,³⁴ and Bangladesh¹⁰ who have poor street food safety enforcement, regulations, and practices because food laws and policies do not prioritize street food; additionally, there is no standardized regulatory framework for informal food vending activities.

The condition varies for Hanoi City, Vietnam, they have a well-written policy on the governance of street food.³⁹ Trübswasser et al³⁷ stress the need to strengthen food safety policies and enforcement in Ethiopia, particularly for street vendors. In Vietnam, attention is focused on how local authorities guide, harmonize, and monitor food safety standards.¹⁶ According to a study conducted in Salvador, Bahia, Brazil, the government ought to implement laws, rules, and regulations that enable the trade of street food within established guidelines.⁴⁰

The national food and nutrition policy highlights the need for an independent institution to be established by the country's governmental structures.⁴¹ The informants responded differently, some saying yes there is a need for an independent institution to give due attention, and others saying no. In a country with limited resources, it is preferable to strengthen the coordination instead of adding more governmental structures. Irregularities in government structures, especially in the FDA, lead to ambiguity in roles and responsibilities. Varying structures at different government levels across the country result in inconsistent implementation nationwide.

Ensuring food safety is a transdisciplinary task involving many stakeholders in a coordinated manner.⁴² The findings indicate widespread acknowledgment of inadequate sector integration, and the lack of defined roles and responsibilities has resulted in overlapping duties among them. To safeguard public health, researchers recommend establishing a robust regulatory framework, organized institutions, and enhanced coordination across all involved sectors to ensure food safety and quality.⁴³ Haque and Kohda¹⁰ also pointed out that Safe street food requires collaboration between macro-level and micro-level stakeholders for sustainable solutions. Effective communication is key to fostering mutual understanding across sectors and ensuring the safety and quality of street food.¹⁹ Duplication of responsibilities and unclear roles waste resources and hinder effective monitoring of food vendors. Collaborate across organizations, innovate beyond traditional structures, and establish clear institutional frameworks to ensure crucial food hygiene and safety.³⁸

Poor coordination and collaboration among sectors and institutions stem from the absence of terms of reference. A two decade bibliometric analysis of food safety governance highlights the challenge of addressing issues due to a lack of well-defined documents and guiding terms of reference across involved sectors.⁴⁴ Besides, Meyer et al¹⁹ describe that the presence of terms of reference between working groups can increase the relationships among them and facilitate effective achievement.

Food regulatory bodies play an important role in public health, contributing significantly to population health in a variety of ways. Their role entails both developing and enforcing food safety standards to monitor food safety risks.¹⁹ The findings indicate that there are few professionals involved in monitoring and supportive supervision, and those who do exist in most areas are not professionally competent. Due to this, the existing professionals have a high burden and this leads to the presence of poor coordination among sectors and institutions. This is in line with the study conducted in Ecuador³ and Ghana³⁶ where there are insufficient inspectors, who had multiple responsibilities which negate the benefits that may have emerged from having supervision of street food vendors. Moreover, they are under-resourced (financial, human, logistics), lack access to adequate security during field regulatory activities, and do not have access to transportation.

Ensuring street food safety anywhere on the face of the globe requires appropriate legislation and adequately resourced institutions to enforce this legislation.³⁷ Strict policies, rules, and regulations, along with signed terms of reference, should govern and monitor street food vendors. These guidelines need to extend from the federal to the district level for effective implementation. If higher governmental officials prioritize the issue, addressing it in an integrated manner becomes easier, requiring concerted efforts from concerned bodies. Scholars argue that the growth of street food trade and the need for particular laws and regulations aimed at achieving quality and proper hygiene of products.⁴²

The study revealed the importance of establishing a street food vendors association to ensure vendors operate legally. This involves enforcing regulations and issuing temporary licenses for proper oversight. In Ghana, the effectiveness of vendor regulations is linked to the involvement of food vending associations. They act as intermediaries, managing levies and overseeing street vending activities.³⁴ Food vendors should be encouraged to form groups at the national, regional, district, and local levels to ensure quick dissemination of information and ease of education and training.^{6,45} The researchers proposed forming town vending committees, including government, resident associations, and street vendors' representatives, to oversee matters like street vending plans and space allocation.⁴⁶

The government should establish proper working spaces with essential infrastructure for street vendors, treating their occupation with the same respect as other jobs and safeguarding it as a fundamental right. Another research also suggested that the formalization of street food carts to avoid illegal usage of the area and, eviction by police and local authorities is needed.^{10,47}

Education aims at influencing the way of life and empowering people to make a choice, while training enables one to acquire a skill.⁴⁷ Changing street vendors' attitudes and perceptions on hygiene and safety is essential for desired behavioral changes. This requires implementing effective training and awareness programs by governmental and non-governmental organizations.^{6,13} In Ghana, it is customary for vendors to receive training before beginning work.³⁴ Different authors concluded that intensive public education and training on food hygiene and safety principles required of food vendors is also a key necessity that enables them to comply with minimum hygiene regulations.^{18,46}

Policy implications

Based on our findings, the following policy implication points were made for effective and inclusive regulation of street foods in Ethiopia:

Provide due emphasis for the street food sector in the national food and nutrition policy

Emphasizing the street food sector in the national food and nutrition policy is not just a matter of culinary culture; it is a

matter of public health, economic opportunity, and social well-being. This research provides direction to enhance the effective regulation of street foods and to improve the provision of safe food. The national food and nutrition policy includes and gives due emphasis to this large and informal sector. The policy describes the street foods trade only in one paragraph this implies that the concerned bodies didn't realize the public health importance and significance of street food. Hence from the economic, social, and health points of view, the policy should be revised and give adequate emphasis to this sector

Harmonization of institutional frameworks with clearly defined roles and responsibilities

In the Ethiopian national food and nutrition policy, sectors are listed and signed an agreement to implement in a coordinated manner, but the finding of this research concluded that there is almost no integration between all sectors who put their signature on the policy document. Mostly it is left at the minister level rather than the district level. In addition, though they are signed, their roles and responsibilities overlap and there is a duplication of duties and functions. Moreover, the policy didn't involve clear role of the private and non-governmental organizations as stakeholders in improving the street food vending activities. Engaging these organizations could provide valuable expertise, resources, and support for implementing the policy effectively. Hence, the policy should give room for private, both international and local NGOs to be engaged as key responsible bodies

Improve street food vendor access to infrastructural facilities

Street food vendors play a vital role in urban food culture, offering diverse and affordable food options to a wide range of consumers. This research further recommends that most street food vendors have no regular places to do their business and even those who have, are without the basic infrastructures like water, sanitation and hygiene facilities, and electric power. Furnishing these infrastructures may encourage vendors to adopt better hygienic practices, and reduce the risk of food contamination, better infrastructure can lead to increased vendor income as they can offer a wider variety of foods and operate longer hours.

Initiate the establishment of street food vendors association

Associations serve as a bridge between the government and food vendors to achieve effective and high-quality results in food vending practices. Governance can be more effective and long-lasting if the intermediaries come from the sector that the governance arrangements are meant to govern. The government should run most activities through these associations,

giving training, initiating certification for a license, facilitating inspection by governmental regulatory bodies, etc. . . Besides this, the health sector should select some delegated people and provide frequent and appropriate training for the selected individuals to equip the necessary knowledge and skills to conduct inspections of street food vending stalls in place of health regulatory bodies since the regulatory professionals may be busy with other routine duties. The health regulators should visit them at certain intervals and discuss the existing bothering issues together with the delegated inspectors.

Conclusion

In conclusion, this study provides a comprehensive overview of the condition and governance of street food vending in Ethiopia and offers several important insights. Street food vending is a crucial community development tool in Ethiopia and has a significant socio-economic role. In Ethiopia, the focus on street food vendors is low which leads to the provision of poor and unsafe food for consumers. There is weak integration among stakeholders and sectors working in this area in terms of role and responsibility to improve the quality and skill of street food vendors in urban cities. Even though the federal government has developed a policy, it is not well communicated to all levels of sectors and stakeholders working in this area, and this leads to a lack of inconsistency in policy implementation, monitoring, and evaluation of street food vending practices among the cities.

To address the points raised, the concerned bodies should pay close attention by establishing formal street food associations, providing adequate and proper infrastructure, improving multi-sectoral engagement, and regulating and controlling street food vending to ensure safety and reduce the occurrence of foodborne diseases. This emphasizes the significance of balancing the benefits of street food vending with proper oversight. Furthermore, they should receive the necessary institutional and infrastructure support. Finally, quantifying the economic benefits of street food vending activities in Ethiopia needs further investigation.

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Author Contributions

Mathewos Moges: conceptualization, methodology, validation, formal analysis, investigation, data curation, writing original

draft preparation. Argaw Ambelu: conceptualization, methodology validation writing, review and editing, and supervision. Ernest Kristian Rodland: Designed the study, review the draft manuscript, edit the manuscript. All authors have read and agreed to the published version of the manuscript.

Institutional Review Board Statement

Jimma University's institutional review board has provided ethical clearance (JUIH/IRB/201/22).

Informed Consent Statement

Informed consent was obtained from all subjects involved in the study

Data Availability

Data will be available up on the request from the corresponding author

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