

Retail Diversity for Dietary Diversity

Resolving conflicting priorities of food safety and nutrition for the urban poor in Hanoi, Vietnam



BILL & MELINDA GATES foundation



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Executive Summary

The current food environment in Hanoi only provides a minimal level of diet quality for the urban poor. Modernization policies aim to improve food safety by promoting closure of open-air markets in favour of supermarkets and convenience stores. Open-air markets are the main source of food and maintain healthy diets, but don't offer formal food safety guarantees. In comparison, modern retail outlets such as supermarkets and convenience stores provide foods with safety claims but are not being utilised by the urban poor due to inconvenience, lack of trust in food safety and higher price level. Offering a wide assortment of ultra-processed foods these modern outlets may also stimulate the consumption of these unhealthy foods and reinforce food access inequality. Continued closure of traditional open-air markets in favour modern retail outlets is jeopardising the future diet quality of the urban poor. It is recommended that food safety policies in Vietnam embrace existing retail diversity of local food systems and identify opportunities to improve food safety at open-air markets.

Figure 1 Sources of the foods consumed

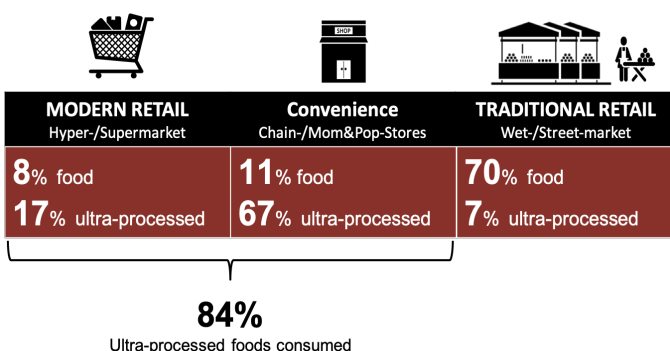
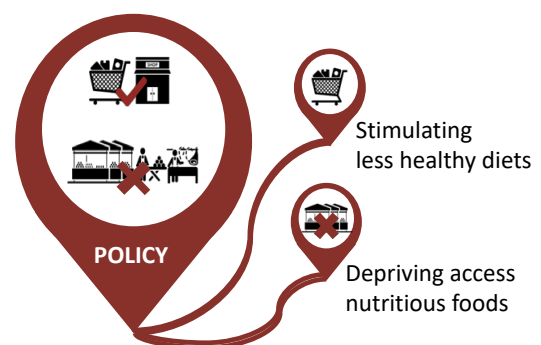


Figure 2 Potential policy outcome pathways



What's the problem?

Ensuring healthy and safe food access together with food and nutrition security in low-income urban groups is a critical challenge confronting Vietnamese policy makers.

Consumers and Policy makers alike are faced with the competing priorities between food safety and nutrition. However, food safety is being prioritized evident by the recent transformations in urban food safety governance. These policies promote 'supermarketization' (the closure of open-air markets in favor for modern retail outlets) as a remedy for recurrent food safety incidences.

Around one third of Hanoi's population lives on less than \$5/capita and on average 41% of household income is spent on food. These households heavily rely on wet markets to access fresh and nutritious produce. Forced closure of these markets is designed to channel consumers into supermarkets and convenience stores. Increased cost of foods and dietary changes associated with supermarkets and exposure to ultra-processed foods (for which consumption is linked to obesity and non-communicable diseases (NCDs)) leaves food and nutritional security at risk.

Shopping at supermarkets is associated with increased consumption of ultra-processed foods and increased rates of obesity, whereas wet-market shopping is associated with increased vegetable consumption.

Vegetables are critical for good health and nutrition and are an integral part of the traditional Vietnamese diet. They are affordable and easily accessible, yet on average, Vietnamese people do

not consume sufficient quantities to meet WHO recommendations (at least 400gr // 5 portions per day). Unfortunately, these and other fresh foods are amongst those of most concern by the government and consumers regarding food safety. However, actual public health risk is low and there is little evidence to actually support that these foods sold in wet markets are unsafe and as such, the planned closure of almost all formal markets based on fear alone may be unnecessary.

The challenge is identifying strategies and opportunities to prevent potential undesirable nutrition effects of these policies on the urban poor.

This brief addresses the impact of the current food safety policies on diet quality of the urban poor. Practical recommendations for policy makers are provided to avoid potential negative impacts to diet quality, recognizing the urgent need for a more equitable and nutritious urban food environment in Vietnam.

What's happening to urban diets?

A study was conducted to assess consumer food access capabilities by linking Hanoi's food retail environment with food shopping practices, preferences and dietary intake of 400 households in Hanoi, with a focus on women.

Five methods were used to collect data: 1/ Food retail outlet census; 2/ Food shopping practices survey; 3/ Price data collection; 4/ quantitative 24hr dietary recall; and 5/multi-generation household interviews combined with shopping trips.

The study found consumers were aware that nutrition is important and have basic knowledge and understanding of nutrition concepts. Overall

Figure 3 Food retail outlet categorization

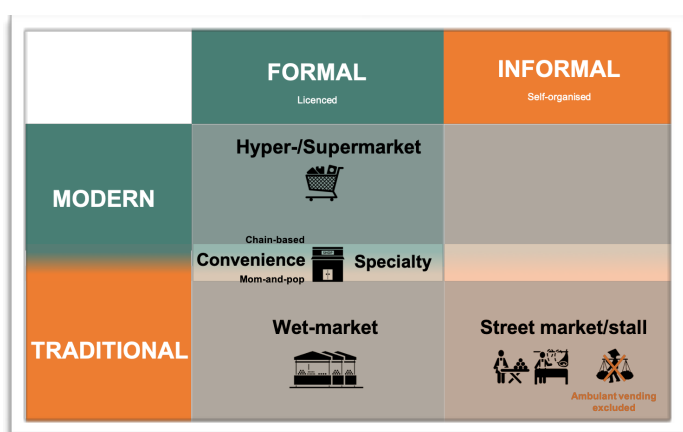
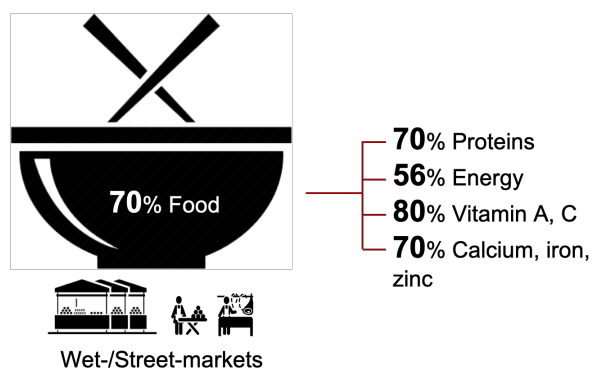


Figure 4 Nutrition from markets



diet quality of the urban poor was minimal. Women only consumed half of their daily nutrient requirements and 25% did not reach minimum dietary diversity.

Foods purchased from traditional retail outlets contributed most to daily nutrient intakes: 70% protein; 56% energy; \pm 80% vitamin A and C and \pm 70% calcium, iron and zinc.

People were found to not be against supermarkets and the policy has been effective at distributing safe vegetable outlets through the lower demographic areas where wet-markets are no longer easily accessible. This has largely been through convenience stores, which were distributed more abundantly and equally than supermarkets and offered a variety of safe and fresh vegetables. However, there was still limited consumer trust associated with the safety guarantees, the prices were slightly more expensive than in the wet markets, and opening hours did not accommodate for the preferred shopping times. As a consequent, the urban poor were essentially excluded.

Nearly all (90%) of households still preferred to shop at traditional wet-markets and street-markets, with 70% of the diet sourced from these outlets. The study revealed that supermarkets and convenience stores offer a higher percentage and wider range of ultra-processed than traditional

open-air markets and that they were frequented mainly for purchasing and consuming these less healthy foods.

The urban poor did not utilize supermarkets or convenience stores for primary grocery shopping even when these modern outlets were located close to home. When a wet-market was beyond walking distance, consumers chose informal street markets rather than modern retail outlets. Unfortunately, street vending is unregulated and more unhygienic than formalized wet markets, meaning potentially increased food safety vulnerability.

The main drivers of continued shopping in wet-markets and street-markets was largely driven by preferred shopping practices including the diversity and perceived freshness of products offered, convenient location, overall enjoyment of open-air market shopping, availability of healthy foods, lower food-price and perception on trusted food-safety. Social considerations were also raised including habitual nature and worrying about maintaining the culture and tradition associated with market shopping, and the influence on cooking of traditional dishes. Lastly, over 40% of household-income was spent on in-home food consumption. Vast differences in retail outlet food prices were observed, especially particularly between traditional (in)formal markets and food safety regulated

Figure 5 Vegetable basket price indexation



Figure 6 What foods women buy where

MODERN RETAIL Hyper-/Supermarket	Convenience Chain-/Mom&Pop-Stores	TRADITIONAL RETAIL Wet-/Street-market
Dairy Snacks Ready to eat foods Sweets & cookies	Rice, cereals and starch Dairy Snacks Ready to eat foods Sweets & cookies Oils and fats Spices	Fish Meat Eggs Vegetables Fruits Legumes Nuts & Seeds Insects

COMPLIMENTARY VALUE CONSIDERATIONS OF OPEN AIR

MARKETS

Open air markets provide multi-dimensional values to consumers beyond simply providing access to foods. These values contribute to the wellbeing and empowerment of local communities and include:

Cultural: e.g. Flexible shopping practices (preferred shopping)

Social: e.g. places to meet friends and interact with neighbours

Financial: e.g. supporting local small business and livelihoods related to food

modern and hybrid outlets. Supermarkets were on average 35% more expensive, but still considered somewhat affordable. Furthermore, over 85% of households reported that the price for formal food safety regulated food items was too high, and when sold through specialized retail outlets, also unaffordable.

The urban poor don't feel empowered in voicing their needs and concerns in coping with food safety and nutrition in everyday life.

Consumers understood the government's rationalization that traditional wet-markets were being closed due to hygiene and food safety concerns and understand the food retail needs to modernize. However, they still wanted to keep wet-markets as part of their daily food environment and expressed their concerns about the current rather one-dimensional direction and expressed ideas about more hybrid alternatives that involve the co-sharing of responsibilities in managing food safety at the markets.

What does it mean?

Competing priorities for nutrition and food safety coexist in governing food policy in Hanoi, Vietnam. Traditional open-air markets remain crucial in maintaining a minimal level of diet quality for the urban poor, although they do not provide formal food safety guarantees.

Modern retail outlets provide formal food safety guarantees, nevertheless the urban poor often cannot or do not access or utilize these retail outlets as their primary source of food even when traditional markets are beyond walking distance. When formal markets are not available, consumers are turning to informal street markets which are unregulated and pose even higher food safety risks. The times supermarkets are utilized, it is mostly to purchase ultra-processed foods, stimulating

unhealthy diets and jeopardizing the future dietary quality of the urban poor.

Currently, Vietnam has made significant progress in decreasing rates of undernutrition, however obesity and prevalence of non-communicable diseases (NCDs) is increasing – particularly in the urban areas – putting pressure on public health systems. The negative risk to diets and nutrition associated with changing the primary food environment to depend wholly on supermarkets will either i) drive people towards more unhealthy diets and increased NCDs, and/or ii) increase food insecurity due to increasing food budget expenditure to maintain the current diet quality.

Although the often-unhygienic conditions and lack of adequate control mechanisms of traditional open-air markets are not contested, the limits of pushing modernization and banning traditional retail structures without inclusive consultation of the urban poor is risking their food and nutrition security.

Policy recommendations

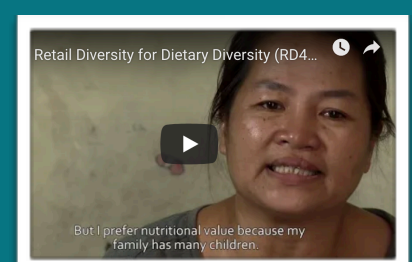
Policy must focus on how to mitigate the undesirable economic access barriers of food safety certification and supermarketization for the urban poor to not degrade diet quality.

With the current policy, supermarkets are expected to increasingly function as the primary food source. In the context recurring food safety incidences also in supermarkets, a combination of more effective in-store food quality control and consumer awareness campaigns is recommended to improve consumer trust in food safety guarantees provided by these outlets to promote utilization of these outlets in the absence of wet markets, rather than reverting to informal street markets. These same campaigns should also educate consumers about the dietary and health risks associated with increased consumption of ultra-processed foods and

WHAT THE PEOPLE THINK: ACTIVE PARTICIPATION OF CONSUMERS

A short documentary titled Retail Diversity for Dietary Diversity: Food Safety and Nutrition for the urban poor was developed to give agency to the urban poor voices and allow policy makers insight into their daily food realities. It can be viewed here:

<https://www.youtube.com/watch?v=3ZiZ2xSvffY&feature=youtu.be>



emphasize the importance of continued consumption of fresh foods.

However, policy makers must acknowledge that wet-markets are crucial for maintaining current diet quality for the urban poor. As such, it is recommended that food safety policies be revised to recognize the importance of these types of retail outlets for diet quality and should be designed to embrace and include the retail outlet diversification in urban food systems.

Insufficient attention has been placed on identifying innovative policies and interventions to improve wet-market vendor hygiene and food handling practices that guarantee food safety, such as community-based guarantee systems. Low-cost local food safety control mechanisms and policy to renovate and upgrade existing informal fresh food outlets with deficient food safety standard must be established and offered as an alternative to closure.

Evidence demonstrating these retail outlets can provide equivalent food safety as supermarkets, government and consumer trust can be rebuilt in these outlets. Active consultation and participation of representatives from all levels of socio-economic status households and local authorities should be included.

To ensure the dual public responsibility of improved access to diverse, safe and nutritious foods by the urban poor, the current one-dimensional ideal-type policies on food safety and public health requires a more diverse and participatory retail modernisation, food safety and nutrition policy approach. Equitable urban food systems that empower all residents to access healthy and safe food for healthy diets, food

safety policies must recognise the importance of versatile and diverse food retail environments. This allows opportunity for co-creation of an equitable and nutritious food environment, actively involving the participation of (vulnerable) consumer-groups, food-producers, retailers and policy makers. Such an approach will generate new insights into the cultural, social and economic dimensions of food practices, habits, preferences and needs of consumers.

References

1. Bui, T V et al. (2016) Fruit and vegetable consumption in Vietnam, and the use of a "standard serving" size to measure intake. *British Journal of Nutrition*, 116(1):149–157.
2. Kelly, M et al. (2014) Thailand' food retail transition supermarket and fresh market effects on diet quality and health. *British Food Journal*, 116(7): 1180–1193.
3. Kimenju, S C et al. (2015) Do supermarkets contribute to the obesity pandemic in developing countries? *Public Health Nutrition*, 18(17), pp. 3224–3233.
4. Monteiro, C et al. (2016) 'NOVA. The star shines bright.', *World Nutrition*, 7(1–3): 28–38.
5. Uyen, T T T, Klaver, M, and Wertheim-Heck, S C O (2018) Retail Diversity for Dietary Diversity: Food retail census map Hanoi: <http://www.freshstudio.vn/index.php/rd4ddmap>
6. Wertheim-Heck, S et al. (2015) Food safety and urban food markets in Hanoi: The need for flexible and customised retail modernisation policies. *Food Policy*, 54: 95-116.
7. WHO (2018) Healthy Diet, World Health Organization Factsheet No 394: <http://www.who.int/mediacentre/factsheets/fs394/en/>

CONSIDERATIONS FOR TESTING INTERVENTIONS THAT CAN IMPROVE FOOD SAFETY WITHIN WET-MARKETS

- Co-Shared responsibility with local actors at location;
- Block chain technologies to improve the traceability from production (including small holder farmers) to consumption; validation of participatory guarantee systems (PGS)
- Improved hygiene, food handling and prep awareness of wet-market vendors AND consumers;
- Active participation of populations whose diets depends on these wet-markets;
- Develop performance standards for market management and technical assistance training programs to assist market managers and vendors to improve business standards.

Figure 7 Competing Policy Priorities



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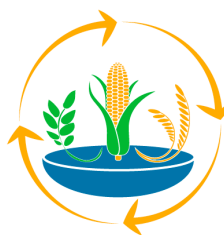
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PROJECT WEBSITE

<https://www.wur.nl/en/project/Retail-Diversity-for-Dietary-Diversity-RD4DD.htm>