



Commentary

The role of food environment policies in making unhealthy foods unattractive and healthy foods available in Africa

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Malnutrition—the longest raging pandemic in human history continues to ravage all regions of the world. Home to more than half of the world's 746 million acutely food insecure people [1], and with a rapidly increasing rate of obesity and other diet-related non-communicable diseases (NCDs), Africa has a unique challenge.

While the causes of malnutrition are complex, unhealthy diets remain one of the key contributors. Widespread availability, accessibility, and affordability of unhealthy diets is a symptom of food system failure. A food system failure is a market failure, but also a moral failing, as the world has what it takes to prevent it. Governmental intervention is warranted. The role of governments in protecting, promoting, and assuring the health of their citizens is grounded primarily in national legislations, policies, as well as morally-binding conventions. Calls by public health actors nudging governments to act [2]—in this regard should be supported. The essential package of interventions should include food environment (FE) policies [3].

Swinburn et al. define FE as the “collective physical, economic, policy and sociocultural surroundings, opportunities and conditions that influence people's food choices” [3]. To facilitate appreciation of these policies, we [4] recently elaborated on the FE policy-healthy food links proposed by Swinburn et al. [3] using the following logic model:

If Governments implement comprehensive policy measures that serve to limit availability of unhealthy foods (e.g. *energy-dense nutrient-poor foods, foods that contain too much salt/sugar/saturated fats*), while availing healthy foods (e.g. *unprocessed/minimally processed foods including wholegrains, fruits, and vegetables*) to consumers;

The production, processing, promotion of unhealthy foods will be reduced;

Leading to reduced availability, attractiveness and consumption of unhealthy foods, or increased availability, attractiveness, and consumption of healthy foods.

Globally, countries (very few in Africa) are implementing these policies [5]. Food composition policies are motivated by evidence linking unhealthy food supply systems to the rise in malnutrition [6]. These policies aim to minimize energy-density and nutrients of concern (e.g. salt, fat, saturated fat, trans-fats, added sugar) in processed. In 2014, the Argentine Government successfully passed a law on mandatory maximum levels of sodium for various food products. Several countries (including Denmark, USA) currently ban use of trans-fats in foods. In 2013 South Africa and in 2019 Morocco adopted mandatory targets for salt reduction in several food categories including bread, breakfast cereals, margarines, savoury snacks, processed meats, dry soup and stock cubes. The 2020 WHO Global NCD Progress Monitor reports limited government effort in implementing these policies [7]. In Africa only Tunisia reported fully implementing salt/sodium policies; saturated fatty acids/trans-fats policies are fully implemented by Morocco and Tunisia [7]. Enablers of such policy inertia include the economic, but also power dynamics between public health and private interests [8].

Food marketing policies call for comprehensive action by governments to reduce the impact of promotion of unhealthy foods particularly to children [3]. Globally, countries are actively implementing these in response to the WHA Resolution 63.14 [2] drafted in 2010. The Resolution enjoins governments to ensure that settings where children gather are free from all forms of marketing of unhealthy foods. In Africa, Morocco has fully achieved the implementation of this policy [7].

Food labelling policies are implemented to enable consumers make informed choices regarding the healthiness of their foods [3]. These include mandatory front-of pack traffic light labelling indicating healthiness of food products. Fiscal policies (taxing unhealthy foods and subsidies on healthy foods) align with health outcomes by helping to make healthy eating choices easier and cheaper [3]. Although the health rationale for these policies are cogent, only a handful of countries are implementing them. In 2016, South Africa became the first African country to implement a sugar-sweetened beverage (SSB) tax. Morocco repealed its SSB tax in 2018 prior to implementation in 2019, in response to pressures from the agri-food industry [8]. The implementation, and impact of the outlined policies (also the WHO Best Buys or effective interventions for prevention and control of NCDs) have been evaluated [5,6, Table 1].

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Table 1
Lessons on implementation of sugar sweetened beverage (SSB) tax, front-of-pack food labelling (FOPL), and restrictions of food and non-alcoholic beverage marketing to children globally.

| Jurisdiction | SSB tax implementation evidence/lessons |
|---|--|
| Barbados | Evaluations done one year and seven weeks post-implementation of the SSB tax, showed average overall sales of SSBs decreased by a relative 4.3%. At the same time, non-SSBs saw a relative increase in sales by 5.2%. |
| Chile | Evaluations done one year and three months after the SSB tax showed decrease in household per- capita purchases of SSBs by 3.4% by volume and 4% by calories |
| France | Six months post-implementation, the tax had fully passed through to soda prices and almost fully passed through to prices of fruit drinks but was incomplete for flavoured waters. Pass through rate is he rate of an excise tax that is transferred from producer to consumer |
| Hungary | One-year post implementation, 26 to 35% of consumers had decreased their intake of products subject to the Public Health Product Tax. Two-years post-implementation, reduction in consumption of taxed products was sustained. Between 2012 and 2014, people changed their consumption of energy drinks by 28% and their consumption of sugar sweetened soft drinks by 20%. Price and knowledge that sugar sweetened drinks are unhealthy were the two main factors that influenced a reduction in sugar sweetened soft drink consumption |
| Mexico | One-year post-SSB tax implementation, purchases of taxed beverages decreased by 6% on average. Reduced purchases of taxed beverages were seen across all socioeconomic groups, but reductions were higher amongst households of low socioeconomic status, with an average decline of 9% during 2014 and up to a 17% decrease in December 2014 |
| Portugal | In 2017, official data estimates sales of taxed SSBs had reduced by 7% due to price elasticity and reputational effects. |
| Spain (Catalonia) | One-year post-SSB tax implementation the prevalence of regular consumers of taxed beverages fell by 39% in Barcelona (city subject to the tax) as compared to Madrid (city not subject to the tax), but the prevalence of consumers of untaxed beverages remained stable |
| UK | A 2019 study found changes to sugar levels in drinks post-implementation of the UK Sugary Drinks Industry Levy. The percentage of drinks with sugar over 5 g per 100 mL fell from an expected level of 49% to 15% over the time period studied. There was little change in the product size or the number of products available to consumers |
| USA (Philadelphia) | Two-months post-SSB tax implementation, the likelihood of daily consumption of sugared soda and energy drinks declined by 40% and 64% respectively and the likelihood of daily bottled water consumption increased by 58%. |
| <i>Jurisdiction</i> | <i>FOPL implementation evidence/lessons</i> |
| Australia (health star rating system) | In Australia, three years post-implementation, the Health Star Rating (HSR) system appeared on 28 per cent of eligible products. Consumers liked, could understand, and use the HSR logo, though effects on purchasing were largely unknown. Reasonable refinements to HSR's star graphic and algorithm, action to initiate mandatory implementation, and strengthened HSR governance present the clearest opportunities for improving public health impact. |
| Chile (Warning Label) | In Chile, six-months post implementation, public support for the warning label was strong, it was affecting purchasing behaviour and having a positive impact on product reformulation. Purchases of high-in beverages significantly declined following implementation of Chile's Law of Food labelling and Advertising; these reductions were larger than those observed from single, stand-alone policies, including sugar-sweetened-beverage taxes previously implemented in Latin America. The study found that the purchase volume of high-in beverages decreased by 22.8 mL per capita per day or 23.7% after the regulation was implemented. |
| Ecuador (Traffic Light Label) | In Ecuador, one-year post implementation, research found that people consumed fewer products with 'high' labels and chose more often products with 'medium' and 'low' labels |
| Netherlands (Choices Logo) | Before its withdrawal from the Netherlands, the Choices Logo resulted in the reformulation of existing products and the development of new products with a healthier product composition. Soups were most frequently reformulated in order to carry the logo and new product development was highest in the snack category. Sodium was the nutrient reformulated in the most product groups and dietary fibre was significantly higher in new products, compared to reference products in categories. |
| New Zealand (Health Star Rating System) | Four years post-implementation, the Health Star Rating (HSR) system had a 20.9 per cent uptake level. Reformulation of products that did display the HSR was greater than that of non-HSR-labelled products of the same period (for example: energy reduction, sodium content). |
| Singapore (Healthier Choice Symbol) | In Singapore, evaluations showed that products displaying the HCS were increasing by 5 per cent each year. Consumption of HCS products were associated with better diet quality.) |
| UK (Traffic Light Label) | A study investigated the percentage change in sales four weeks before and after traffic light labels were introduced by the retailer showed that sales of the products displaying the label increased (by 2.4% of category sales) in the four weeks after the introduction of traffic-light labels, whereas sales of the selected sandwiches did not change significantly. The study found that there was no association between changes in product sales and the healthiness of the products. |
| <i>Jurisdiction</i> | <i>Marketing restrictions implementation evidence/lessons</i> |
| Global - Systematic Reviews. | <i>Mandatory regulation of broadcast food advertising to children</i> A systematic review of evidence on 1) the effectiveness of statutory and self-regulatory actions to reduce the volume, exposure or wider impact of advertising for foods high in fat, sugar and salt (HFSS) to children, and 2) the role of educational measures, showed that statutory regulation could reduce the volume of and children's exposure to advertising for foods HFSS, and had potential to impact more widely. Self-regulatory approaches showed varied results in reducing children's exposure. <i>Self-regulation</i> Another systematic review that evaluated industry self-regulation regarding food and beverage marketing and nutrition labelling revealed that commitments in industry self-regulation schemes tend to be relatively vague and permissive, that the measurable effects of the self-regulations tend to be relatively small, and stress ineffectiveness of existing self-regulation schemes. |
| Canada (Quebec) | <i>Regulation of broadcast food advertising to children</i> A study examined the differences in exposure to food marketing on television between English children in Ontario, and French and English children in Quebec as each group is influenced by different advertising policies (self-regulation vs statutory regulation), and reported that the Quebec advertising ban does not appear to be limiting the amount of food/beverage advertising seen by children aged 10–12. |
| Chile | <i>Mandatory regulation of broadcast food advertising to children</i> Following Chile's 2016 child-directed marketing regulation, a study showed that children's exposure to high-in food advertising on popular broadcast and cable television decreased significantly but was not eliminated from their viewing. |

(continued)

Table 1 (Continued)

| Jurisdiction | SSB tax implementation evidence/lessons |
|--------------|--|
| UK | <p><i>Mandatory regulation of broadcast food advertising to children</i></p> <p>A study explored food advertising on UK television in 2010 (post-regulation) and compared this to 2008 (mid-regulation) to assess if food adverts improved in nutritional quality after implementation of regulations. The data showed that children were still exposed to high amounts of unhealthy food advertising on television. The authors recommended that continued monitoring of television food advertising remains crucial, and policymakers should examine the comparative efficacy of other restrictions.</p> |
| US | <p><i>Mandatory regulation of specific marketing techniques</i></p> <p>A study examined the impact of the Healthy Food Incentives Ordinance introduced in 2011 at ordinance-affected restaurants on restaurant response (eg, toy-distribution practices, change in children's menus), and the energy and nutrient content of all orders and children's-meal-only orders purchased for children aged 0 through 12 years in San Francisco. The responses of participating restaurants were examined from January 2010 through March 2012. The data showed that restaurant chains responded to the ordinance by selling toys separately from children's meals, but neither changed their menus to meet ordinance-specified nutrition criteria. amongst children for whom children's meals were purchased, significant decreases in kilocalories, sodium, and fat per order were likely due to changes in children's side dishes and beverages. The transition to a more healthful beverage and default side dish was consistent with the intent of the ordinance.</p> |

Source: Adapted from World Cancer Research Fund International (2019). Building momentum: lessons on implementing a robust sugar sweetened beverage tax, front-of-pack food label, and restrictions of food and non-alcoholic beverage marketing to children. Available at www.wcrf.org/buildingmomentum.

Implementation in Africa is currently sparse [4,9]. The peculiar heterogeneity of the African FE and its variegated political economies may explain this. Facing a syndemic of undernutrition, overweight/obesity and other diet-related NCDs, enforcing policies that disincentivize consumption of unhealthy/calorie-dense foods, but also those that avail healthy/nutrient-rich foods are important. Local economies, but also, the power asymmetries between “public” and “private” interests confound promulgation and implementation of these policies. Worthy of note is the fact that no one FE policy is a magic bullet; a simultaneous implementation of multiple - ‘carrot and stick policies’ (preferably double-duty policies –aimed at combating malnutrition in all its forms) is recommended. Initiatives such as the Measurement, Evaluation, Accountability, and Leadership Support for NCDs Prevention Project (MEALS4NCDs); and the Coalition of Actors for Public Health Advocacy (CAPHA) derive motivation from such recommendations as well as the power of advocacy in addressing public health challenges. These initiatives are currently supporting public sector actions that create healthy food environments in Ghana, and other African countries-through the African Food Environment Research Network (FERN).

Author contributions

Amos Laar: Conceptualization, literature search, writing of original draft, finalization of the draft.

Declaration of Competing Interest

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