

Benchmarking policies for creating healthy food environments in Kenya to prevent diet-related non-communicable diseases (NCDs)



Healthy Food Environment Policy Index (Food-EPI) **country scorecards** and **priority recommendations** for action in Kenya | **March 2019**

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Acknowledgments

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List of Acronyms

ACSMS	Advocacy Communication and Social Mobilization Strategy
EPI	Environmental Policy Index
FAO	Food and Agriculture Organization
HSNP	Hunger Safety Net Program
INFORMAS	International Network for Food and Obesity/NCDs Research, Monitoring and Action Support
KEPSA	Kenya Private Sector Alliance
KHSSP	Kenya Health Sector Strategic Investment Plan
NCD	Non-Communicable Disease
NNAP	National Nutrition Action Plan
UNICEF	United Nations Children's Fund
WHO	World Health Organization

Executive Summary

Background

Like other African countries, Kenya is experiencing rapid urbanization, accompanied by increasing levels of obesity and other diet-related non-communicable diseases (NCDs); with higher levels among urban residents, and women in particular. The overconsumption of unhealthy diets that are energy-dense and nutrient-poor is implicated in the onset of diet-related NCDs; with growing evidence that unhealthy food environments drive unhealthy diets. Comprehensive government action is needed to create healthier food environments; to support people to consume healthier diets; and to reduce obesity and diet-related NCDs as well as their related inequalities.

What we did

The extent of implementation of food environment policies in Kenya was assessed and priority actions were identified for the government to implement, with its partners, to create healthier food environments. Methods based on the Healthy Food Environment Policy Index (Food-EPI) by INFORMAS (International Network for Food and Obesity/NCDs Research, Monitoring and Action Support) were used. Between October 2017 and August 2018, a cross-country team of researchers trained by a Food-EPI expert implemented the Kenya Food-EPI exercise. Evidence on the extent of government action to implement food environment policies was collected across 13 policy and infrastructure support domains and 43 related indicators of good practice. As part of the process, a panel of 16 local experts rated the extent of government action on each indicator of good practice against international best practices ('high', 'medium', 'low' or 'very little') and against a within country planning and development cycle ('initiation', 'in development', 'implementation' or 'evaluation'). Actions for the government to implement to improve food environments in Kenya were identified and prioritized.

Implementation of food environment policies and infrastructure support compared with international best practice and a planning and development cycle

Gaps were identified in the implementation of food environment policies in Kenya, as well as opportunities to create healthier food environments. In terms of a planning and development cycle, approximately 1/3rd of all areas of good practice (16/43) were judged to be in 'implementation' phase, including policy action to: implement food composition targets for processed foods; ensure packaged food labels have ingredient lists/nutrient declarations in line with Codex; develop regulatory systems for assessing health/nutrition claims; restrict the promotion of breast milk substitutes; and develop school health policy to promote healthy food choices. On infrastructure support, areas judged as in 'implementation' phase included efforts to: implement food-based dietary guidelines; establish strong political support; develop comprehensive plans linked to national need; ensure transparency in the development of food policies; and monitor nutritional status/intake. Approximately half the indicators of good practice (22) were only 'in development', including action to: restrict promotion of unhealthy foods to children; ensure food pricing policies promote healthy choices; support in-store availability of healthy foods; and protect trade regulatory capacities related to nutrition. For infrastructure support, there was limited action to: establish population intake targets/priorities for reducing health inequalities; restrict commercial influences on policy; monitor food environments and health inequalities; fund obesity and NCD research; and establish coordination mechanisms across government levels.












No evidence of any government action was documented for five policy areas of good practice: establishment of food composition standards/targets for out-of-home meals in food service outlets; front-of-pack or menu board labelling systems; risk assessments for trade agreements; or zoning laws on the density/location of healthy/unhealthy food service outlets.

At the level of international best practice, the Government of Kenya was judged to be performing relatively well ('medium') in only four policy and infrastructure support areas: restricting the marketing of breast milk substitutes; demonstrating political leadership; having a comprehensive implementation plan linked to national need; and ensuring all policies are sensitive to nutrition. Of the remaining areas of good practice, 34 indicators were rated as 'low' and two as 'very little' in relation to international best practice. All recent government policy action on food composition, food labelling, food provision, food retail and food trade and investment was rated as 'low'. In terms of food prices, government action to reduce taxes on healthy foods and increase taxes on unhealthy foods was rated as 'very little' at the level of international best practice. Infrastructure support actions relating to governance, monitoring and intelligence, funding and resources, and platforms for interaction were all rated as 'low'.

Recommended actions for creating healthy food environments in Kenya

The expert panel identified and prioritized 23 actions for creating healthier food environments taking into account perceptions of importance and feasibility. Seven actions were judged to be the most important and feasible (see blue sections in Table 1 below) and cover issues of leadership, food promotion, labelling, food composition, food prices and health in all policies. Three actions (on food prices, trade and food provision) were assessed as of high importance but less feasible. Thirteen actions across a range of areas of good practice (including leadership, platforms for interaction, food promotion and safety, monitoring) were judged to be of lower importance and feasibility.

Table 1. Actions identified and prioritized by the expert panel for creating healthier food environments in Kenya.

Food-EPI Domain		Recommended action
Actions of highest importance and feasibility:		
	Leadership	Incorporate a food systems approach, anchored in the SDGs and with a focus on sustainable diets and healthy and diverse consumption (SDG12) in Kenya's food policy going forward.
	Food Promotion	On advertising and marketing, develop a policy framework of engagement with commercial processed food producers to ensure regulation and standards that should be enforced and punitive measures legislated against.
	Food Labelling	Ensure that food policy includes international best practices to eliminate trans fats and where some percentage is included to label (in line with recommendations) and issue "traffic lights" warnings.
	Food labelling	Ensure that food labelling is standardized and explicit to the nutrition profile of the processed food.
	Food Composition	Ensure that food standards for processed foods include information the energy density for different target groups (and ensure that this is accompanied with serving guidelines).
	Food Prices	Establish tax policies that favor production and consumption of healthy foods and discourage unhealthy foods, e.g. offer tax relief or reductions to farmers and traders of healthy foods, especially fruits and vegetables.
	Health in all policies	Integrate health and nutrition in all stages of government planning and budgeting to ensure that there is a high impact on nutrition (including mainstreaming of nutrition in health systems).
Actions of high importance, but less feasible at this present time:		
	Food Prices	Increase taxes on unhealthy food and drink products and on restaurants that sell fast foods to increase their prices.
	Trade and investment	Ensure that there is a proper trade policy that targets risk assessments, food safety, hygiene and percentages of sodium, fats, trans fats, to ensure the importation of healthy foods/regulate the importation of unhealthy foods related to NCDs
	Food provision	Introduce policy to provide healthy foods (e.g. legumes, fruits, vegetables) in government-funded food programs
Actions of lower importance and feasibility at this present time:		
	Leadership	Ensure that existing policies that cover nutritional issues and risk assessments on healthy foods based on NCDs are properly implemented and enforced by government.

	Platforms for interaction	Ensure that Technical Working Groups set up by government to look into issues and policy gaps include experts from different fields (e.g. agriculture, nutrition, health).
	Food Prices	Develop policies on capacity building which enable the production of more healthy food and reduce its price.
	Funding and resources	Encourage evidence-informed policymaking and budgeting, and support and fund the requisite research on food environments/NCDs at national and county level.
	Governance	Increase parliamentary capability and interest in healthy eating practices related to reducing NCDs.
	Monitoring	Develop a non-communicable disease monitoring and evaluation framework for Kenya.
	Food promotion	Develop public education campaign related to healthy eating and NCD prevention.
	Funding and resources	Ensure funding is provided to support research that cuts across the country's population (i.e. categorizing by age, gender) to support implementation of action plans to curb issues related to healthy eating and diet-related NCDs.
	Funding and resources	Invest more funds in food environment infrastructure
	Other: Food safety	Review and enhance existing food safety measures.
	Platforms for interaction	Intra-departmental working arrangements should to be developed.
	Governance	Develop an accountability framework for government policy makers.
	Platforms for interaction	Ensure meaningful participation of underserved communities throughout the policymaking and feedback process

Comprehensive government action is needed to create healthier food environments in Kenya, to support people to consume healthier diets and to reduce all forms of malnutrition.

Background

Like other African countries, Kenya is experiencing rapid urbanization, accompanied by increasing levels of obesity and other diet-related non-communicable diseases (NCDs); with higher levels among urban residents and women in particular (1–4). The prevalence of overweight and obesity among women increased from 25% to 33% between 2008 and 2014 and NCDs now account for 27% of all morbidity, a third of all deaths and half of all hospital admissions in Kenya (5,6). Urbanization is associated with changes in social and physical environments such as food habits, and dietary practices, and the proliferation of energy-dense and nutrient-poor foods, which is associated with obesity and diet-related NCDs. Such diets are also associated with lower micronutrient intake, which remains prevalent in Kenya (7).

There is growing evidence that unhealthy food environments drive unhealthy diets. Food environments are the collective physical, economic, political and socio-cultural surroundings, opportunities and conditions that influence what food people eat. (8) There is expert consensus internationally on the type of policy action that governments need to take to create healthier food environments.(8) Action to improve food environments will help improve all forms of malnutrition. In Kenya, the national NCD prevention strategy recognizes NCDs as a pressing health concern and calls for improved policy formulation, legislation, and interventions to promote healthy diets (9). There are gaps however, in data availability to support appropriate planning, policy formulation, and legislation(10). To successfully strengthen policies and interventions, it is important, as a first step, to understand what NCD-related policies exist and the extent of implementation of actions to improve food environments in the country.

This project assessed the extent to which the Government of Kenya is implementing globally recommended policies on the promotion of healthy food environments and progress against an in-country development cycle. It also recommends priority actions for the Government to take forward with its partners.

What we did

Methods based on the Healthy Food Environment Policy Index (Food-EPI) by INFORMAS (International Network for Food and Obesity / NCDs Research, Monitoring and Action Support) were used. INFORMAS monitors and benchmarks food environments and policies internationally to increase the accountability of governments and the food industry for actions to reduce diet-related NCDs.(8) The Food EPI in Kenya was conducted between October 2017 and August 2018 by a cross-country team of researchers trained by a Food-EPI expert. The key steps in the Kenya Food-EPI process are shown in Figure 1 and explained below.

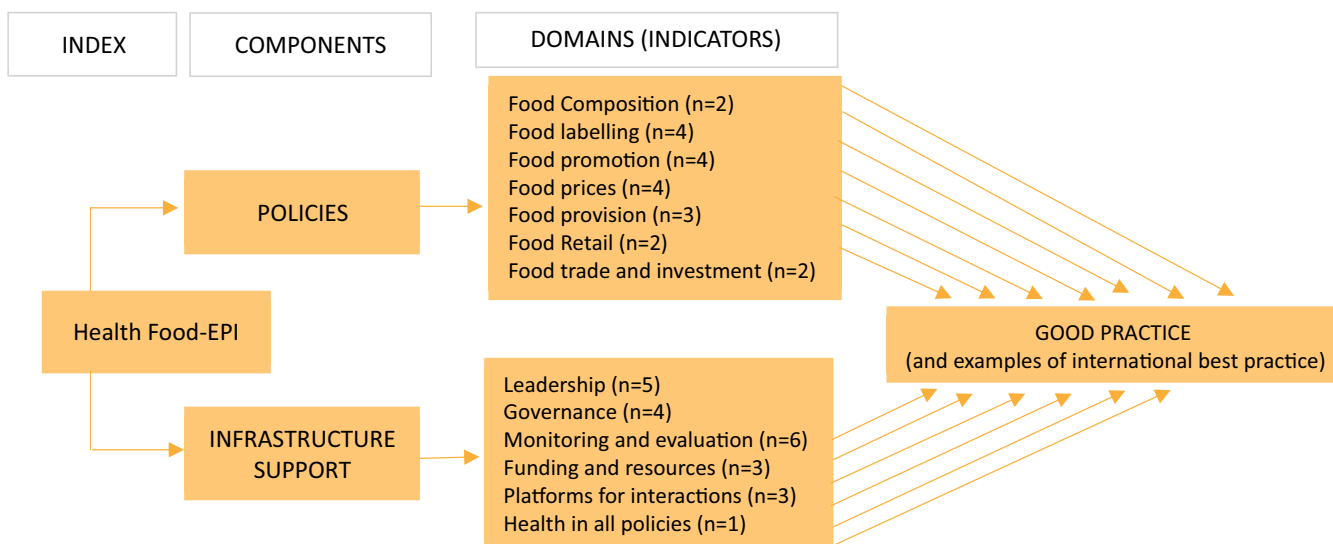
Figure 1. Process for assessing the extent of food environment policy implementation in Kenya.



Document and verify

Evidence on the extent of government action to implement food environment policies was collected across 13 policy and infrastructure support domains and 43 related sub-areas (indicators) of good practice (Figure 2; Tables 1 and 2). The domains and indicators of good practice were tailored to the Kenyan context by the research team, in consultation with INFORMAS, according to the Food EPI protocol. A broad view of evidence was taken: government policies, workplans, and national strategies were included, as well as evidence of formal/informal activity across policy processes (from agenda-setting to implementation, monitoring and evaluation). Government websites, websites of other institutions (for example, Food and Agriculture Organization, World Health Organization, United Nations Children’s Fund) and academic databases (for peer-reviewed articles) were systematically searched for evidence of action and requests for information were also submitted to relevant government authorities. Physical searches/reviews of documents not available online were also completed. A total of 31 relevant sources were identified spanning the period 2003-2018. The evidence was collated and documented in an ‘Evidence Pack’, which was shared with 21 key officials from government line ministries or parastatals, the private sector (including food manufacturing companies) and non-government organizations, for feedback and validation. Feedback was incorporated into a finalized ‘evidence paper’ in July 2018 (see evidence paper summary in Appendix 1). In the evidence paper, action taken by the Government of Kenya to create healthier food environments was presented alongside examples of international best practice, as identified by INFORMAS (see Tables 1 and 2).

Figure 2. Components, domains and indicators of the Food-EPI tool used in Kenya.



Convene

A panel of 16 experts on food and nutrition issues in Kenya was convened during the process of collecting evidence. Members of the expert panel were from both non-government (academia, civil society) and State sectors.

Assess

The expert panel reviewed the Evidence Paper and used the information within it to rate the extent of government action to implement policies on food environments and infrastructure support against: 1) an in-country planning and development cycle and 2) international best practice. The ratings covered all 13 of the policy and infrastructure support domains and 43 sub-areas of good practice that are listed in Figure 2 and Tables 1 and 2. The level of government action against in-country development was categorized as: ‘initiation’, ‘in development’, ‘implementation’ or ‘evaluation’. The level of action against international best practice was categorized as: ‘high’, ‘medium’, ‘low’ or ‘very little’. This assessment process took place during an expert panel workshop that was held in Nairobi in July 2018.

Identify and prioritize

At the end of the workshop, the expert panel identified potential policy and infrastructure support actions that the government could take forward with its partners. The identified actions were subsequently prioritized by the panel, taking account of perceptions of relative importance (i.e. need, likely impact, equity) and feasibility (i.e. level of acceptability, affordability, cost-effectiveness).

Table 1. Policy domains, sub-areas (indicators) of good practice and examples of international best practice (11).

Policy domain	Good practice	Examples of international best practice
Food composition	Food composition standards/targets set for processed foods	Argentina Mandatory maximum levels of sodium in various food products. Denmark Ban on trans fats
	Food composition standards/targets set for out-of-home meals in food service outlets	USA Restaurants not allowed to produce foods that contain partially hydrogenated oils (PHOs). New Zealand Industry standards set for deep frying oils.
Food labelling	Ingredients lists / nutrient declarations required	Canada, USA (and others) require trans-fat labelling on packaged food USA Requirement for added sugar to be included on packaged food labelling
	Regulatory systems in place for health and nutrition claims	Indonesia Regulation establish rules on the use of specified nutrient content claims (i.e. level of fat for a low-fat claim).
	Front-of pack labelling system	Ecuador Mandatory traffic light labelling indicating healthiness of food products. Chile Warning labels for products high in calories, saturated fat, sugar or sodium.
	Menu board labelling system	South Korea Chain restaurants (100+ outlets) must display nutrient information on menus (energy, total sugars, protein, saturated fat, sodium).
Food promotion	Restrict promotion of unhealthy food to children in broadcast media	Chile No advertising of unhealthy foods directed to children under 14 (or when audience share is greater than 20% children)
	Restrict promotion of unhealthy food to children in non-broadcast media	Quebec, Canada Ban on all commercial advertising directed to children (under 13 years) through any medium
	Restrict promotion of unhealthy food in children's settings	Spain Legislation requires that kindergartens and schools are free from all advertising
	Restrict marketing of breast milk substitutes	Various countries Legislation / adopted regulations encompass all / nearly all requirements of WHA International Code on this topic.
Food prices	Reduce taxes on healthy foods	Fiji Removed excise duty on imported fruits, vegetables and legumes.
	Increase taxes on unhealthy foods	Mexico 10% tax on sugary-drinks, 8% tax on unhealthy snack foods. Hungary Public health tax on sugary-drinks / various unhealthy foods.
	Existing food subsidies favor healthy foods	Canada Retail-based subsidy program in northern isolated communities enables local retailers and registered suppliers to access and lower the cost of perishable healthy foods (e.g. eggs, vegetables)
	Food-related income-support is for healthy foods	UK Pregnant women / families with children under 4 who receive certain state benefits receive weekly 'healthy start' food vouchers.
Food provision	Policies in schools/early education promote healthy food choices	Costa Rica Schools only permitted to sell food meeting set nutritional standards. UK Mandatory nutritional standards for all food served in schools-restrictions on high fat/ sugar/salt/processed foods.
	Policies in public settings promote healthy food choices	New York City, USA Mandatory nutritional standards for all food purchased/sold by city agencies (hospitals, prisons, aged care, health facilities)
	Support and training systems in place in public sector settings	Japan Mandatory oversight / monitoring by dietitian/nutritionist (e.g. menu development) for all government facilities providing >250 meals/day
Food in retail	Zoning laws on the density/location of healthy/unhealthy food service outlets	South Korea 'Green Food Zones' (<200m) around schools ban the sale of foods (fast food, soda) deemed 'unhealthy' by Food and Drug Administration
	In-store availability of healthy/unhealthy foods regulated	UK Voluntary agreement with commercial companies to increase availability of fruit/vegetables at convenience stores
	Trade agreement impacts assessed	European Union Mandatory environmental impact assessments (potentially including health impacts) for all new trade agreements
Food trade and investment	Protect regulatory capacity regarding nutrition	Ghana Standards set maximum % fat content in beef, pork, mutton and poultry.

Table 2. Infrastructure support domains, sub-areas of good practice (indicators) and examples of international best practice (11).

Infrastructure support domain	Sub-area of good practice	Examples of international best practice
Leadership	Strong, visible political support for population nutrition	New York City, USA Mayor (M. Bloomberg) showed strong political leadership in introducing 'landmark' food policies, including restrictions on trans-fat and portion size restrictions on sugary-drinks.
	Population intake targets established	Brazil 'Strategic Action Plan for Confronting NCDs' specifies targets for fruit and vegetable consumption, and reductions in average salt intake.
	Food-based dietary guidelines implemented	Brazil National dietary guidelines address healthy eating from a cultural, ethical and environmental perspective.
	Comprehensive implementation plan linked to national needs/priorities	EU European Food and Nutrition Action Plan 2015-20 outlines clear strategic goals, guiding principles, objectives, priorities and tools.
	Priorities for reducing inequalities related to nutrition	New Zealand Ministry of Health upholds contracts with NGOs/other institutions to prioritize Maori health and Maori specific needs in service delivery, service development and planning
Governance	Restricting commercial influence on policy development	Australia Public Services Commission Values and Code of Conduct includes a number of relevant sections (e.g. conflicts of interest, lobbying)
	Use of evidence in policies related to population nutrition	Australia National Health and Medical Research Council requirements to develop evidence-based guidelines
	Transparency in the development of food policies	Australia Open access principles across governments, FSANZ processes for extensive stakeholder engagement in the development of new standards
	Publicly available nutrition and policy information	Various countries 'Freedom of Information' legislation provides certain rights of public to access documents of government departments/agencies.
Monitoring and Evaluation	Monitoring food environments	New Zealand Database of nutrient information for different foods, monitoring of school food environments nationwide
	Monitoring population nutrition status and intakes	USA National annual survey provides detailed national information on health status, disease history and nutritional intake of adults and children
	Monitoring population body weight	UK National Child Measurement Program for children's BMI, assessing children ages 4-6, and 10-11
	Monitoring of NCD risk factors	OECD countries Most have robust prevalence, incidence and mortality data for the main diet-related NCDs and NCD risk factors
	Evaluation of major programs and policies	USA The National Institutes for Health has dedicated funding for evaluating new policies/programs expected to influence obesity- related behaviors
	Monitoring of inequalities in relation to nutrition	New Zealand All annual Ministry of Health surveys estimate by subpopulations
Funding and Resources	Funding for nutrition as a proportion of total health spending	Thailand Expenditure report from 2012 showed the government had increased spending on nutrition (excluding food, hygiene control).
	Research funding for obesity and other NCDs	Thailand National Research Council funded more projects on obesity and diet-related chronic diseases between 2013 and 2014.
	Statutory health promotion agency with sustainable financing	Australia The Victorian Health Promotion Foundation is an autonomous government agency established as a dedicated health promotion agency.
Platforms for interaction	Coordination mechanisms across departments / levels of government	Malta Inter-Ministerial Advisory Council on Healthy Lifestyles (cross-sectoral group) advises the Minister on Health with a life-course approach to nutrition.
	Platforms for government and commercial food sector interaction	UK 'Responsibility Deal' was an initiative to bring food companies and non-government groups together to address NCDs.
	Platforms for government and civil society interaction	Brazil The National Council of Food and Nutrition Security (CONSEA) is made up of civil society and government representatives that advises the President's office on matters involving food and nutrition security.
Health in all policies	All government policies sensitive to nutrition and inequalities	Slovenia Undertook a Health Impact Assessment in relation to agricultural policy at national level.

Country scorecard 1: Implementation of food environment policies and infrastructure support in relation to an in-country policy development cycle.

Government action was judged to be in ‘implementation’ phase in approximately 1/3rd of all areas of good practice (16/43):

Five policy and 11 infrastructure support areas. There was evidence of policy action to: implement food composition targets for processed foods; ensure packaged food labels have ingredient lists/nutrient declarations in line with Codex; develop regulatory systems for assessing health/nutrition claims; restrict the promotion of breast milk substitutes; and develop school health policy to promote healthy food choices. For infrastructure, the 11 areas judged as in ‘implementation’ phase included action to: implement food-based dietary guidelines; establish strong political support; develop comprehensive plans linked to national need; ensure transparency in the development of food policies/access to information; and monitor nutritional status/intake.

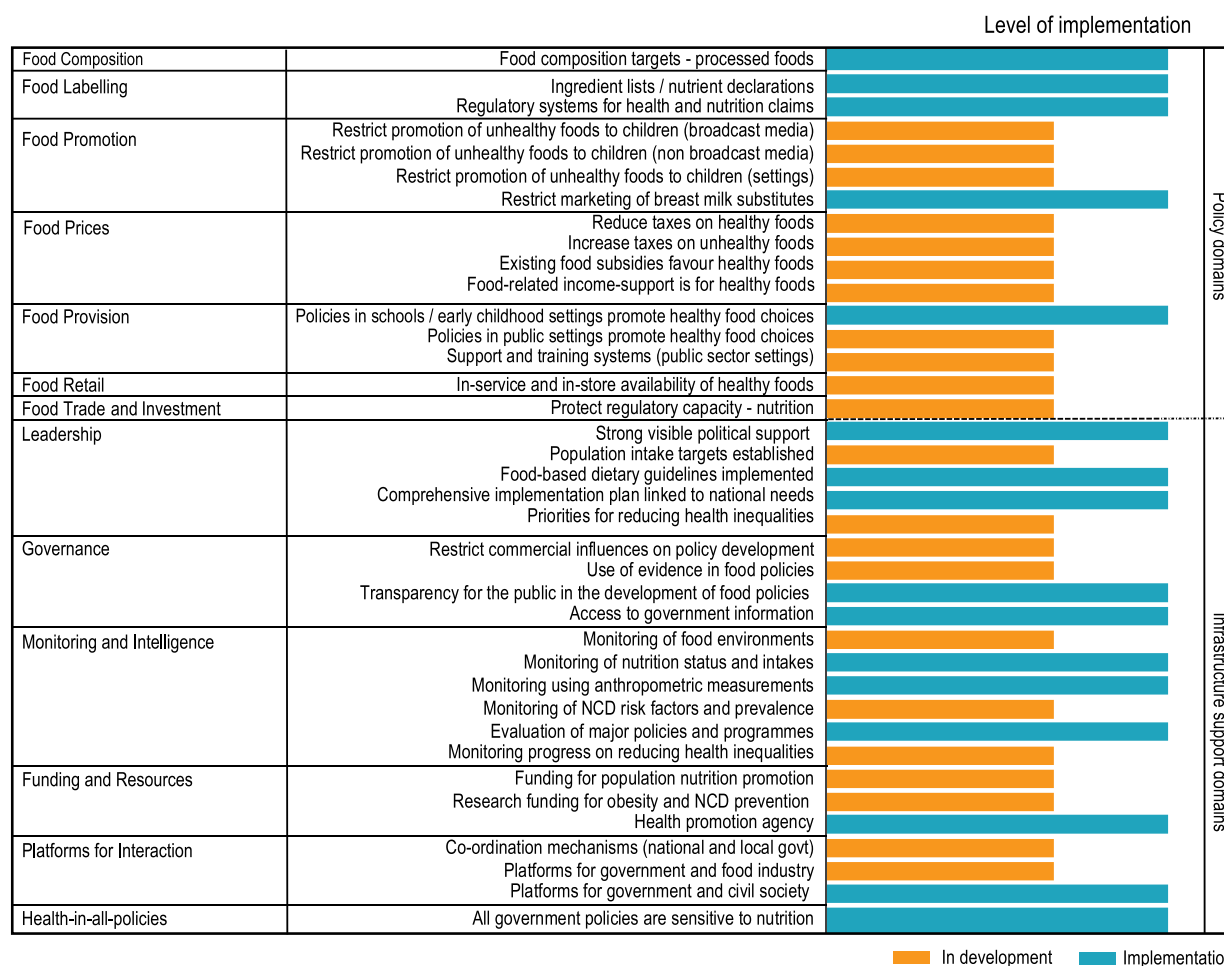
Approximately half of the indicators of good practice (22) were judged to be only ‘in development’, including government action to:

restrict the promotion of unhealthy foods to children; ensure food pricing policies promote healthy choices; support in-store availability of healthy foods; and protect trade regulatory capacities related to nutrition. For infrastructure support, there was limited action to: establish population intake targets/priorities for reducing health inequalities; restrict commercial influences on policy; monitor food environments/ health inequalities; fund obesity and NCD research; and establish coordination mechanisms across government levels.

No evidence of any government action was documented for 5 policy areas of good practice (not included in scorecard): establish food composition standards/targets for out-of-home meals in food service outlets; front-of-pack or menu board labelling systems; risk assessments for trade agreements; or zoning laws on the density/location of healthy/unhealthy food service outlets.

****None of the policy domains were judged to be in the initiation or evaluation phase of policy development**

Figure 3. Implementation of food environment policies and infrastructure support in relation to in-country development cycle.



Country scorecard 2: Implementation of food environment policies and infrastructure support as compared with international best practice

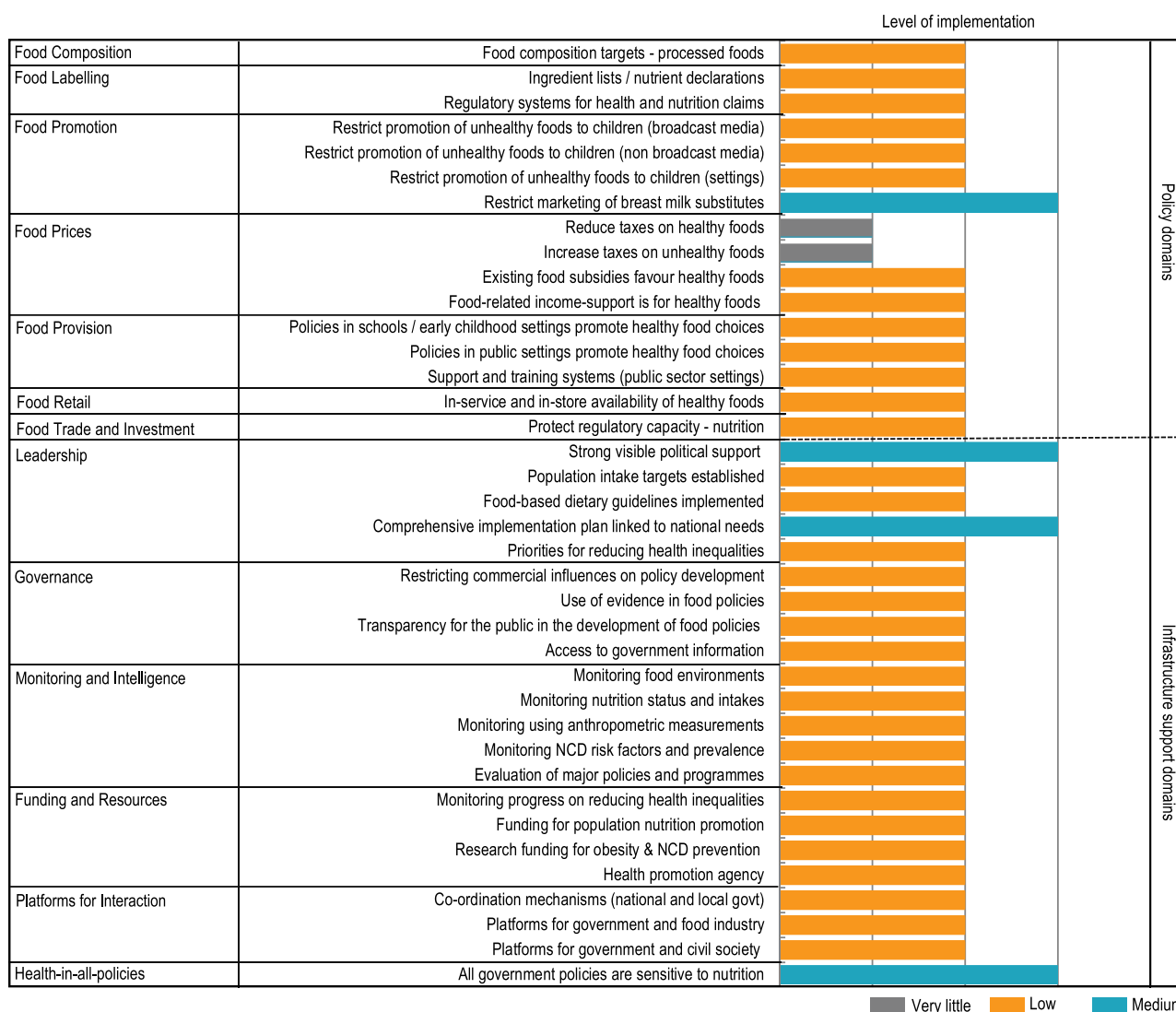
The Government of Kenya was judged to be performing relatively well ('medium') at the level of international best practice in only four policy and infrastructure support areas: restricting the marketing of breast milk substitutes; demonstrating political leadership; having a comprehensive implementation plan linked to national need; and ensuring all policies are sensitive to nutrition. Only the marketing of breastmilk substitutes was from the food policy domain (Figure 4).

Of the remaining areas of good practice, 34 indicators were rated as 'low' and two were assessed as 'very little' in relation to international best practice. All recent government policy action on food composition, food labelling, food provision, food retail and food trade and investment was rated as 'low'. In terms of food prices, government actions to reduce taxes on healthy foods and increase taxes on unhealthy foods were rated as 'very little' at the level of international best practice. Infrastructure support actions relating to governance, monitoring and intelligence, funding and resources, and platforms for interaction were all rated as 'low'.

As with country scorecard 1, no evidence of any government action was documented for five policy areas of good practice relating to: food composition standards/targets for out-of-home meals in food service outlets; front-of-pack or menu board labelling systems; risk assessments for trade agreements; or zoning laws on the density/location of healthy/unhealthy food service outlets. These do not appear in the scorecard.

****None of the policy indicators was judged as high implementation in relation to international best practice.**
















Figure 4. Implementation of food environment policies and infrastructure support in relation to international best practice.



Recommended actions for creating healthier food environments in Kenya

The expert panel identified and prioritized 23 actions for creating healthier food environments taking into account perceptions of importance and feasibility. Seven actions were judged to be the most important and feasible: these are highlighted in blue in Table 3 and cover issues of leadership, food promotion, labelling, food composition, food prices and health in all policies. Three actions (on food prices, trade and food provision) were assessed as of high importance but less feasible. Thirteen actions across a range of areas of good practice (including leadership, platforms for interaction, food promotion and safety, monitoring) were judged to be of lower importance and feasibility.

Table 3. Actions identified and prioritized by the expert panel for creating healthier food environments in Kenya.

Food-EPI Domain	Recommended action
Actions of highest importance and feasibility:	
	Leadership Incorporate a food systems approach, anchored in the SDGs and with a focus on sustainable diets and healthy and diverse consumption (SDG12) in Kenya's food policy going forward.
	Food Promotion On advertising and marketing, develop a policy framework of engagement with commercial processed food producers to ensure regulation and standards that should be enforced and punitive measures legislated against.
	Food Labelling Ensure that food policy includes international best practices to eliminate trans fats and where some percentage is included to label (in line with recommendations) and issue "traffic lights" warnings.
	Food labelling Ensure that food labelling is standardized and explicit to the nutrition profile of the processed food.
	Food Composition Ensure that food standards for processed foods include information the energy density for different target groups (and ensure that this is accompanied with serving guidelines).
	Food Prices Establish tax policies that favor production and consumption of healthy foods and discourage unhealthy foods, e.g. offer tax relief or reductions to farmers and traders of healthy foods, especially fruits and vegetables.
	Health in all policies Integrate health and nutrition in all stages of government planning and budgeting to ensure that there is a high impact on nutrition (including mainstreaming of nutrition in health systems).
Actions of high importance, but less feasible at this present time:	
	Food Prices Increase taxes on unhealthy food and drink products and on restaurants that sell fast foods to increase their prices.
	Trade and investment Ensure that there is a proper trade policy that targets risk assessments, food safety, hygiene and percentages of sodium, fats, trans fats, to ensure the importation of healthy foods/regulate the importation of unhealthy foods related to NCDs
	Food provision Introduce policy to provide healthy foods (e.g. legumes, fruits, vegetables) in government-funded food programs
Actions of lower importance and feasibility at this present time:	
	Leadership Ensure that existing policies that cover nutritional issues and risk assessments on healthy foods based on NCDs are properly implemented and enforced by government.
	Platforms for interaction Ensure that Technical Working Groups set up by government to look into issues and policy gaps include experts from different fields (e.g. agriculture, nutrition, health).
	Food Prices Develop policies on capacity building which enable the production of more healthy food and reduce its price.
	Funding and resources Encourage evidence-informed policymaking and budgeting, and support and fund the requisite research on food environments/NCDs at national and county level.
	Governance Increase parliamentary capability and interest in healthy eating practices related to reducing NCDs.
	Monitoring Develop a non-communicable disease monitoring and evaluation framework for Kenya.
	Food promotion Develop public education campaign related to healthy eating and NCD prevention.
	Funding and resources Ensure funding is provided to support research that cuts across the country's population (i.e. categorizing by age, gender) to support implementation of action plans to curb issues related to healthy eating and diet-related NCDs.

	Funding and resources	Invest more funds in food environment infrastructure
	Other: Food safety	Review and enhance existing food safety measures.
	Platforms for interaction	Intra-departmental working arrangements should to be developed.
	Governance	Develop an accountability framework for government policy makers.
	Platforms for interaction	Ensure meaningful participation of underserved communities throughout the policymaking and feedback process.

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Appendix 1 - Summary of the content of the Kenya Food-EPI evidence paper

Policy domain	Good practice	Examples of international best practice	Policies and government actions in Kenya
Food composition	Food composition standards/targets set for processed foods	<p>Argentina Mandatory maximum levels of sodium in various food products.</p> <p>Denmark Ban on trans fats</p>	<ul style="list-style-type: none"> A food fortification strategy is stipulated as one of the ways of addressing micronutrient deficiencies. This is included in the Kenya Food and Nutrition Security Policy (2011) and the amendment of the Food Drugs and Chemical Substance Act 2012, which made it mandatory for packaged wheat flour, maize meal, fats/oils to be fortified following the East African Standards for fortification. However, these standards do not address food composition standards for processed foods on the use of fats, salts, or sugars in relation to NCDs. The Food, Drugs and Chemical Substances Act Cap 254 (Amendment) 2015 dictates that edible vegetable fats and oils shall be free from trans fatty acid as per the Codex Alimentarius (0.1 g trans-fat per 100 g or per 100 ml). The Food Composition Table for Kenya (2018) has more elaborate presentation of the nutrient information commonly used in Kenya The Kenya National Strategy for Preventions and Control of NCDs recommends a 15% reduction of salt intake at population level, as a means of promoting healthy diets and reducing the modifiable risk factors for non-communicable diseases
	Food composition standards/targets set for out-of-home meals in food service outlets	<p>USA Restaurants not allowed to produce foods that contain partially hydrogenated oils (PHOs).</p> <p>New Zealand Industry standards set for deep frying oils.</p>	None found
Food labelling	Ingredients lists / nutrient declarations required	<p>Canada, USA (and others) require trans fat labelling on packaged food</p> <p>USA Requirement for added sugar to be included on packaged food labelling</p>	<ul style="list-style-type: none"> The Draft East African Standards (2015), Nutrition Labelling - Requirements [KS EAS 803:2014] provides the specifications for labelling of food products, including ingredient lists/nutrition information panels, as details that should be included in food labels. These standards, developed for individual food categories and items, have been adopted and are implemented by the Kenya Bureau of Standards (KEBS). The Food, Drugs and Chemical Substances Act Cap 254 (Amendment) 2015 requires that all foods containing edible fats or oils shall declare the actual level of trans fatty acids in the front of the package label. It also dictates that labelling of foods free from trans fatty acids should be done in accordance with the Kenya Bureau of Standards, Draft East African Standards, and other national standards. The Kenya Bureau of Standards (KEBS) is a statutory body established under the Standards Act (CAP 496) of the laws of Kenya. KEBS is charged with providing tests in areas of biochemistry, microbiology, food and agriculture, engineering, and textiles. KEBS is responsible for monitoring food ingredients and testing nutrient declarations, including random tests of foods available in the market. The KEBS standard KS EAS 38 addresses general labelling of processed food that is, requiring a listing of ingredients and provision of nutrition profile. The Kenya National Strategy for Preventions and Control of NCDs strategy objective 3, focuses on promoting healthy lifestyles and implementing interventions to reduce the modifiable risk, factors for non-communicable diseases, and recommends the implementation of health related legislations and regulations on salt, saturated and trans fatty acids and refined sugar content of processed foods and the packaging, labeling and marketing of food products and beverages.
	Regulatory systems in place for health and nutrition claims	Indonesia Regulation establish rules on the use of specified nutrient content claims (i.e. level of	<ul style="list-style-type: none"> The Draft East African Standards (2015), Use of Nutrition and Health Claims - Requirements [KS EAS 804 and KS EAS 805:2014] provide the specifications against which claims on foods may be tested. KEBS is responsible for reviewing and approving claims on food, and monitoring food ingredients and

		fat for a low-fat claim).	<p>testing nutrient declarations, including random tests of foods available in the market for the protection of misleading nutrition and health claims.</p> <ul style="list-style-type: none"> The Advertising Standards Body of Kenya - Code of Advertising Practice and Direct Marketing 2003, was an initiative of the Marketing Society of Kenya (MSK) and the Association of Practitioners in Advertising (APA), aiming to create a review process leading to the adoption of a comprehensive and up-to date Advertising Code of Practice and Guiding Principles for the Kenyan Market. While self-regulated, the actions of this body are subject to and guided by Kenyan law. The goal is to provide a tangible framework under which all professional parties in the marketing process forge a responsible attitude. Promotional content of display material, menus, labels and packaging also fall within the definition. The Kenya National Strategy for Prevention and Control of NCDs, objective 3, focuses on promoting healthy lifestyles and implement interventions to reduce the modifiable risk factors for non-communicable diseases, and recommends the implementation of health related legislations and regulations on salt, saturated and trans fatty acids and refined sugar content of processed foods and the packaging, labeling and marketing of food products and beverages.
	Front-of pack labelling system	<p>Ecuador Mandatory traffic light labelling indicating healthiness of food products.</p> <p>Chile Warning labels for products high in calories, saturated fat, sugar or sodium.</p>	None found
	Menu board labelling system	South Korea Chain restaurants (100+ outlets) must display nutrient information on menus (energy, total sugars, protein, saturated fat, sodium).	None found
Food promotion	Restrict promotion of unhealthy food to children in broadcast media	Chile No advertising of unhealthy foods directed to children under 14 (or when audience share is greater than 20% children)	<ul style="list-style-type: none"> The Advertising Standards Body of Kenya - Code of Advertising Practice and Direct Marketing 2003 (Parts I and II) <ul style="list-style-type: none"> It restricts the advertisements addressed to or targeted towards children or that are likely to influence children, that contain any statements or visual presentations which might result in harming them mentally, morally, physically or emotionally. Advertisements should not exploit the natural credulity or gullibility of children or their lack of experience and should not strain their senses of loyalty. Promotional content of display material, menus, labels and packaging also fall within the definition. However, this act is not specific to restrictions on unhealthy foods. Development of policies to reduce the impact on children of marketing of foods and nonalcoholic beverages high in saturated fats, trans fatty acids, free sugars, or salt, is a key indicator in the Kenya National Strategy for prevention and Control of NCDs' monitoring frame work
	Restrict promotion of unhealthy food to children in non-broadcast media	Quebec, Canada Ban on all commercial advertising directed to children (under 13 years) through any medium	<ul style="list-style-type: none"> The Advertising Standards Body of Kenya - Code of Advertising Practice and Direct Marketing 2003 (Parts I and II) <ul style="list-style-type: none"> It restricts the advertisements addressed to or targeted towards children or that are likely to influence children, that contain any statements or visual presentations which might result in harming them mentally, morally, physically or emotionally. Advertisements should not exploit the natural credulity or gullibility of children or their lack of experience and should not strain their senses of loyalty. Promotional content of display material, menus, labels and packaging also fall within the definition. The draft school health policy (2017) prohibits the promotion of unhealthy foods in schools and marketing of any foods and beverages around the schools, it recommends that the schools actively promotes healthy foods instead.

			<ul style="list-style-type: none"> Development of policies to reduce the impact on children of marketing of foods and nonalcoholic beverages high in saturated fats, trans fatty acids, free sugars, or salt, is one of the key indicators in the Kenya National Strategy for prevention and Control of NCDs' monitoring frame work. The World Health organization and the Ministry of Health are in the process of piloting tools for profiling foods that are marketed for children. The tool will be useful in making decisions on the foods whose marketing should be restricted.
	Restrict promotion of unhealthy food in children's settings	Spain Legislation requires that kindergartens and schools are free from all advertising	<ul style="list-style-type: none"> The Draft National School Health Policy (2017) includes a thematic area on school meals highlighting that schools shall ensure that no unhealthy foods are allowed or promoted in school, and that schools shall actively promote healthy foods. The policy also prohibits marketing of any foods and beverages within and around schools. Development of policies to reduce the impact on children of marketing of foods and nonalcoholic beverages high in saturated fats, trans fatty acids, free sugars, or salt, is a key indicator in the Kenya National Strategy for prevention and Control of NCDs' monitoring frame work. The World Health organization and the Ministry of Health are in the process of piloting tools for profiling foods that are marketed for children. The tool will be useful in making decisions on the foods whose marketing should be restricted.
	Restrict marketing of breast milk substitutes	Various countries Legislation / adopted regulations encompass all / nearly all requirements of WHA International Code on this topic.	<ul style="list-style-type: none"> The Breast Milk Substitutes Act (2012) restricts the advertisement, marketing, promotion, labelling of packaging, educational and information material related to breast milk substitutes in Kenya. The development of the BMS implementation framework which will guide the implementation and monitoring of the BMS act is also underway. The Advertising Standards Body of Kenya - Code of Advertising Practice and Direct Marketing 2003 (Parts I and II) also restricts the advertisement and marketing of breast milk substitutes, and baby teats, which are only allowed with approval from a health professional and with information that is scientific and factual.
Food prices	Reduce taxes on healthy foods	Fiji Removed excise duty on imported fruits, vegetables and legumes.	<ul style="list-style-type: none"> The Budget Statement for the Fiscal Year 2017/2018 proposed that ordinary bread and maize flour be VAT exempt (zero rated), to make these commodities (considered as essential foods) affordable to poorer families, ensuring target populations have adequate food, rather than to promote healthy eating/food choices.
	Increase taxes on unhealthy foods	Mexico 10% tax on sugary-drinks, 8% tax on unhealthy snack foods. Hungary Public health tax on sugary-drinks / various unhealthy foods.	<ul style="list-style-type: none"> An Excise Duty Act imposes excise duty rates on various unhealthy food items since they are regarded as luxury foods. These include fruit juices and other non-alcoholic beverages (whether or not containing added sugar or other sweetening at KES5 to 10 per liter) and food supplements at 10%. Policy regulation on charging excise tax/ duty on the local production and sale of sugar is in the initial stages of development by the Ministry of Health - Unit of Non-Communicable Diseases and the Unit of Human Nutrition, and the Kenya Revenue Authority among others.
	Existing food subsidies favor healthy foods	Canada Retail-based subsidy program in northern isolated communities enables local retailers and registered suppliers to access and lower the cost of perishable healthy foods (e.g. eggs, vegetables)	<ul style="list-style-type: none"> The Budget Statement for the Fiscal Year 2017/2018 indicated that national government disbursed a total of KES7.3 billion, while county governments provided KES 2 billion, to cater for a doubling of food rations, cash transfers, and other measures ensuring target populations have adequate food, rather than to specifically promote healthy food.
	Food-related income-support is for healthy foods	UK Pregnant women / families with children under 4 who receive certain state benefits receive weekly 'healthy start' food vouchers.	<ul style="list-style-type: none"> The Budget Statement for the Fiscal Year 2017/2018 indicated that there has been a doubling of food rations and cash transfers to families in need. To enable the country to maintain adequate food reserves and ensure productivity of the lands, the government allocated KES 1.3 billion for strategic grain reserves, and KES0.1 billion for mechanization of agriculture. However, these strategies are not specifically targeted towards supporting healthy foods. Five Cash Transfer (CT) programs are in place in Kenya supporting approximately 2 million people (11% of the absolute poor). These are: Cash Transfer for Orphans and Vulnerable Children (CT-OVC), the Older Persons Cash Transfer (OPCT), the Urban Food Subsidy Cash Transfer (UFS-CT), the

			<p>Persons with Severe Disability Cash Transfer (PWSD-CT) and the Hunger Safety Net Program (HSNP).</p> <ul style="list-style-type: none"> • Most are managed by the Ministry of Labor, Social Security and Services (MLSSS), with the exception of the HSNP which is managed by the National Drought Management Authority (NDMA), with support from NGOs. • Despite rising investments, CT programs have remained fragmented and largely uncoordinated. It is important to note that many of these CT programs are not directly food-related, and do not directly promote consumption of 'healthy foods' (15). Some counties have established their own CT programs.
Food provision	Policies in schools/early education promote healthy food choices	<p>Costa Rica Schools only permitted to sell food meeting set nutritional standards.</p> <p>UK Mandatory nutritional standards for all food served in schools-restrictions on high fat/sugar/salt/processed foods.</p>	<ul style="list-style-type: none"> • Kenya has an established school feeding program, employed as a way to distribute healthy food to school attending children. The program consists of a lunch combined with health education and, when clinically indicated, vitamin or iron supplements. • The National Nutrition Action Plan (NNAP) (2012 - 2017), strategic objective focuses on improved nutrition in schools, public and private institutions. Developing nutrition guidelines for schools and other institutions and integrating nutrition education in the school curriculum are stipulated as among the key priority areas. • A school health policy (in draft form) is under development by the government and other stakeholders. The Draft School Health Policy (2017) highlights nutrition among the key thematic areas, calling for the provision of diverse, safe, and nutritious food of good quality and in adequate quantities in schools, as a key strategy to optimize nutrition of children. • The School Nutrition and Meals Strategy for Kenya (2016), provides a framework for the implementation of school meals in Kenya. Increasing the intake and awareness of adequate, culturally appropriate nutritious meals amongst school age children (in schools and ECD centers), is one of the key objectives. • School Curriculum reform is underway in Kenya, and food and nutrition content has been included in the revised curriculum to facilitate nutrition education among school going children/ adolescents, as stipulated in the National Nutrition Action Plan. • The National Food and Nutrition Security Policy (2011) establishes standards and regulations for school meals programs, covering food storage, preparation, handling, and quantity of food served to students. It calls for improved quality and expansion of school meal programs to include pre-schools and boarding schools in collaboration with local communities. It discourages the selling of food in and around schools by unsolicited parties. It further calls for the provision of appropriate training on preparation and service of quality foods to food handlers in school kitchens.
	Policies in public settings promote healthy food choices	New York City, USA Mandatory nutritional standards for all food purchased/sold by city agencies (hospitals, prisons, aged care, health facilities)	<ul style="list-style-type: none"> • The National Nutrition Action Plan (NNAP) (2012 - 2017), strategic objective 7 focuses on improved nutrition in schools, public, and private institutions. However, there is no evidence of implementation in other public and private institutions besides school settings.
	Support and training systems in place in public sector settings	Japan Mandatory oversight / monitoring by dietitian/nutritionist (e.g. menu development) for all government facilities providing >250 meals/day	<ul style="list-style-type: none"> • The National Food and Nutrition Security Policy (2011) calls for the provision of appropriate training on preparation and service of quality foods to food handlers in school kitchens.
Food in retail	Zoning laws on the density/location of healthy/unhealthy food service outlets	South Korea 'Green Food Zones' (<200m) around schools ban the sale of foods (fast food, soda) deemed 'unhealthy' by Food and Drug Administration	None found

	In-store availability of healthy/unhealthy foods regulated	UK Voluntary agreement with commercial companies to increase availability of fruit/vegetables at convenience stores	<ul style="list-style-type: none"> The National Food and Nutrition Security Policy (2011) addresses micronutrient deficiencies by developing standards and supporting high quality commercial micronutrient fortification activities. It also promotes the development of guidelines on distribution and sale of over-the-counter vitamin and mineral supplements. The Ministry of Health - Unit of Nutrition coordinates the distribution/provision of micronutrients to vulnerable populations/groups. However, these initiatives are not specifically targeted at promoting the availability of healthy foods/limiting the availability of unhealthy foods associated with NCDs.
Food trade and investment	Trade agreement impacts assessed	European Union Mandatory environmental impact assessments (potentially including health impacts) for all new trade agreements	None found
	Protect regulatory capacity regarding nutrition	Ghana Standards set maximum % fat contents in beef, pork, mutton and poultry.	<ul style="list-style-type: none"> The National Food and Nutrition Security Policy (2011) states that to ensure adequate quantity and quality of food accessible to all Kenyans for a diverse and healthy diet, among other means, that it is important to promote food trade to ensure a predictable supply of commercially available food. It is important to note that the focus above may be more heavily geared towards sustainable production and availability of food that is diversified, affordable, and helps meet basic nutrition requirements, rather than food/nutrition in relation to obesity and NCDs.

Infrastructure support domain	Sub-area of good practice	Examples of international best practice	Policies and government actions in Kenya
Leadership	Strong, visible political support for population nutrition	New York City, USA Mayor (M. Bloomberg) showed strong political leadership in introducing 'landmark' food policies, including restrictions on trans-fat and portion size restrictions on sugary-drinks.	<ul style="list-style-type: none"> The Ministry of Health's Unit of Nutrition has established a department on Healthy Diets and Physical Activity, which works closely with the Division of Non-Communicable Diseases to implement the NCD strategy including promotion of healthy diets for improved prevention and management of diet related NCDs. Consequently, the National Guideline for Healthy Diets and Physical Activity (2017), developed by government in collaboration with other stakeholders, provides guidance and key messages on healthy diets and physical activities for the general population, as a key strategy to address NCDs mortality and risks among other nutrition related diseases. This step serves as a starting point for the development Kenya's Food-Based Dietary Guidelines. The Kenya Health Sector Strategic and Investment Plan (KHSSP) 2013-2017, provides the health sector and related sectors with medium-term focus, objectives, and priorities to enable them to move towards attainment of the Kenya Health Policy Directions.. Strategic objective 2 within the KHSSP is to halt and reverse the rising burden of NCDs by providing prevention activities; implementing interventions directly addressing marginalized and indigent populations affected by NCDs; integrating health service provision tools, mechanisms and processes for NCDs; and, establishing screening programs in health facilities for major NCDs. Among major NCDs targeted are: mental health, type 2 diabetes, cardiovascular diseases, chronic obstructive airway conditions, blood disorders focusing on Sickle cell conditions, and cancers, which contribute the most to the NCD burden. One of the priority areas identified in The National Nutrition Action Plan (NNAP) (2012 – 2017) is the development of comprehensive strategies and guidelines for the prevention, management and control of diet related NCDs, as well as creating public awareness on the importance of prevention, management and control of diet related NCDs through a national Advocacy, Communication and Social Mobilization (ACSM) strategy. One of the strategies employed to improve nutritional knowledge, attitudes, and practice is to mark nutrition days nationally and in all counties. Nutrition days include World Breastfeeding Week, African Food and Nutrition Security Day, Iodine Deficiency Disorders Day, and Malezi Bora. The Kenya Health Bill 2016 tasks National Government with promoting health and countering any influences that have adverse effects on the population, including promotion of safe foods in sufficient quality and quantity, and promotion of nutrition knowledge. However, it is not specific to food/nutrition in relation to NCDs.

		<ul style="list-style-type: none"> The launch of the Scaling Up Nutrition (SUN) Movement in Kenya in 2012 and the adoption of the National Nutrition Action Plan (NNAP) (2012 – 2017) gave momentum to nutrition, now high on the government’s political agenda (15). Food and Nutrition security is among the four priority areas, identified by the President of Kenya, as the key development agenda (Big Four Agenda) for the country, between 2017 and 2022. To achieve this, several new national initiatives have been identified/ proposed including enhanced large-scale agricultural production of food, promote the productivity of small holders (to enhance food availability) and reduction of food costs (to improve food availability)
Population intake targets established	Brazil ‘Strategic Action Plan for Confronting NCDs’ specifies targets for fruit and vegetable consumption, and reductions in average salt intake.	<ul style="list-style-type: none"> The Food, Drugs and Chemical Substances Act Cap 254 (Amendment) 2015 dictates that edible vegetable fats and oils shall be free from trans fatty acids, and that food deemed to be free from trans fatty acids shall contain such amounts of trans fatty acids as may be permitted by the Codex Alimentarius (0.1 g trans-fat per 100 g or per 100 ml). The Kenya National Strategy for Preventions and Control of NCDs recommends a 15% reduction of salt intake at population level, as a means of promoting healthy diets and reducing the modifiable risk factors for non-communicable diseases
Food-based dietary guidelines implemented	Brazil National dietary guidelines address healthy eating from a cultural, ethical and environmental perspective.	<ul style="list-style-type: none"> The Ministry of Health has developed National Guidelines for Healthy Diets and Physical Activity (which largely provide general guidance on healthy diets and physical activity among the general population). These national guidelines have clear dietary intake levels for salt, sugar, and fats for the elderly, but general statements on reduction of sugar, fat, and salt for other population groups (no specific dietary intake levels).The guidelines are a starting point for the development of Kenya’s Food-Based Dietary Guidelines, which will provide population intake targets for nutrients of concern in relations to NCDs. In addition, a food composition table for Kenya has been developed as step towards the development of the food based dietary guidelines.
Comprehensive implementation plan linked to national needs/priorities	EU European Food and Nutrition Action Plan 2015-20 outlines clear strategic goals, guiding principles, objectives, priorities and tools.	<ul style="list-style-type: none"> The Kenya National Strategy for the Prevention and Control of Non-Communicable Diseases (2015-2020), provides a framework for reducing preventable NCD-related morbidity and mortality. Promotion of healthy lifestyles including healthy diets is highlighted as a key strategic objective towards reducing NCDs disease risks. In the Draft School Health Policy document, the prevention and management of NCDs in schools is also a key thematic area. Promotion of healthy lifestyles including healthy diets and physical activity in schools are highlighted as key strategies to reducing the incidence of NCDs among children and adolescents. The Kenya Health Sector Strategic and Investment Plan (KHSSP) 2013-2017, provides the health sector and related sectors with medium-term focus, objectives, and priorities to enable them to move towards attainment of the Kenya Health Policy Directions. Strategic objective 2 within the KHSSP is to halt and reverse the rising burden of NCDs by providing prevention activities; implementing interventions directly addressing marginalized and indigent populations affected by NCDs; integrating health service provision tools, mechanisms and processes for NCDs; and, establishing screening programs in health facilities for major NCDs. Among major NCDs targeted are: mental health, type 2 diabetes, cardiovascular diseases, chronic obstructive airway conditions, blood disorders focusing on Sickle cell conditions, and cancers, which contribute the most to the NCD burden. One of the priority areas identified in The National Nutrition Action Plan (NNAP) (2012 – 2017) is the development of comprehensive strategies and guidelines for the prevention, management and control of diet related NCDs, as well as creating public awareness on the importance of prevention, management and control of diet related NCDs through a national Advocacy, Communication and Social Mobilization (ACSM) strategy. One of the strategies employed to improve nutritional knowledge, attitudes, and practice is to mark nutrition days nationally and in all counties. Nutrition days include World Breastfeeding Week, African Food and Nutrition Security Day, Iodine Deficiency Disorders Day, and Malezi Bora. The food security unit within the Office of the President led the convening of policy dialogues, which is visible political support for dealing with food prices, food security, and food environment issues; however, population nutrition promotion was not a key focus of policy formulation. The quality of their human resource and the organizational effectiveness to contribute to

			<p>information generation and to monitoring and evaluation, as well as their ties with the policy leaders, helped hasten debates and decision-making (17). However, it is not specific to food/nutrition in relation to NCDs.</p> <ul style="list-style-type: none"> • The launch of the Scaling Up Nutrition (SUN) Movement in Kenya in 2012 and the adoption of the National Nutrition Action Plan (NNAP) (2012 – 2017) gave momentum to nutrition, now high on the government’s political agenda (15).
	Priorities for reducing inequalities related to nutrition	New Zealand Ministry of Health upholds contracts with NGOs/other institutions to prioritize Maori health and Maori specific needs in service delivery, service development and planning	<ul style="list-style-type: none"> • The National Food and Nutrition Security Policy (2011) specifically identifies the importance of the protection of vulnerable populations using innovative and cost-effective safety nets linked to long-term development, since for the poorest and most vulnerable (e.g. in emergency relief situations), their health, nutrition status, and overall well-being, is at imminent and serious risk. • The National Nutrition Action Plan (NNAP) (2012 – 2017), managed by the Ministry of Health is being implemented nationwide and mainly focuses on nutrition-specific interventions, such as Vitamin A and Zinc supplementation or food fortification, targeting women of reproductive age and children under five (15). • Food and Nutrition security is among the four priority areas, identified by the President of Kenya, as the key development agenda (Big Four Agenda) for the country, for the period 2017 to 2022. To achieve this, several new national initiatives have been identified/ proposed including enhanced large-scale agricultural production of food, promote the productivity of small holders (to enhance food availability) and reduction of food costs (to improve food availability). ‘The Big Four’ food nutrition and security agenda however, focuses mainly on food availability/ security rather than obesity and NCDs. • The Kenya Breast milk Substitutes Act (BMS Act), was established in 2012. This is a piece of legislature aimed at providing direction for appropriate marketing and distribution of breast milk substitutes; to provide for safe and adequate nutrition for all infants through the promotion of breastfeeding and proper use of breast milk substitutes, where necessary, and for connected purposes.
Governance	Restricting commercial influence on policy development	Australia Public Services Commission Values and Code of Conduct includes a number of relevant sections (e.g. conflicts of interest, lobbying)	<ul style="list-style-type: none"> • The Kenya National Strategy for the Prevention and Control of Non-Communicable Diseases (2015-2020) states that public health policies, strategies, and multi-sectoral action for the prevention and control of NCDs must be protected from undue influence by any form of vested interest. Real, perceived or potential conflicts of interest must be acknowledged and managed. • The Kenya Health Bill 2016 tasks National Government with promoting health and countering any influences that have adverse effects on the population, including promotion of safe foods in sufficient quality and quantity, and promotion of nutrition knowledge. However, it is not specific to food/nutrition in relation to NCDs. This bill is still under review in Parliament.
	Use of evidence in policies related to population nutrition	Australia National Health and Medical Research Council requirements to develop evidence-based guidelines	<ul style="list-style-type: none"> • The National Nutrition Action Plan (NNAP) (2012 – 2017) highlights enhancing evidence-based decision-making through operations research as a strategic objective. • The Kenya National Strategy for the Prevention and Control of Non-Communicable Diseases 2015-2020 recognizes that interventions and implementation should focus on the achievement of well-formulated objectives, cost-effective, and evidence based targets, and that integrating research into national and county health programs would generate actionable evidence about the effectiveness of interventions or policies. • The Ministry of Health’s Department of Nutrition and Dietetics has a Research Unit, which is a platform for policy makers, implementers, and researchers (from government and non-governmental institutions) to deliberate on research priorities, design research projects, validate external research concepts, and collate research evidence for policy formulation/influence • Some nutrition guidelines and policy documents, such as the Breastfeeding Mother’s Bill 2017, and the Kenya Baby Friendly Community Initiative (BFCl) have been developed with evidence from observational and implementation research. • Academic researchers in universities and think tanks have been a key source of evidence on policy relating to food security and during food price crisis (17).

	Transparency in the development of food policies	Australia Open access principles across governments, FSANZ processes for extensive stakeholder engagement in the development of new standards	<ul style="list-style-type: none"> The National Food and Nutrition Security Policy (2011) calls for more predictable and transparent involvement of the state in the regulation of food trade and markets, particularly where changes to import tariffs, and/or, purchase and sale prices are under consideration. For transparency and democracy, the Kenyan constitution (public participation bill) allows for public participation in legislation and policy development, however, it is not specific on food policies Though not documented officially, there is clear involvement of non-governmental stakeholders in policy formulation processes, this is done through consultative meetings, technical working groups and forums throughout the policy formulation process, such working groups include the national IYCF steering committee, the MIYCN technical working group, the nutrition in research technical working group etc.
	Publicly available nutrition and policy information	Various countries 'Freedom of Information' legislation provides certain rights of public to access documents of government departments/agencies.	<ul style="list-style-type: none"> The National Food and Nutrition Security Policy (2011) states that the government will ensure achievement of adequate nutrition for optimum health of all Kenyans through creating public awareness on relevant issues, and ensuring that all Kenyans are well informed about proper basic nutrition required to live a healthy and active lifestyle throughout the life cycle. Some nutrition information (for example, maternal, infant and young child nutrition, food security and emergency nutrition, or nutrition and NCDs) is made available to the public through government websites, and at various government health, schooling, and community facilities (usually in the form of posters, briefs, or pamphlets). The government's unit of Nutrition and Dietetics has a free access website, in which all food and nutrition related policies, National Survey Reports, and other indicators are available to the public. Various educative and communication materials such as pamphlets with a focus on health and nutrition have been developed by the government for use by the public, and issued at government-funded and other settings (for example, promoting exclusive breastfeeding, promoting appropriate complementary feeding after 6 months, nutrition in management of diabetes etc.) Kenya's constitution, Article 35 of the Constitution and Section 96 of the County Government Act, 2012 provide for the right to access of information. Article 35(1) particularly guarantees all Kenyan citizens the right to state or information held by another person and required for the exercise or protection of any right or fundamental freedom. We identified limited publicly available information on budget/spending in relation to health and nutrition. The access to Information Bill, 2015 covers public bodies or information held by another person and required for the exercise or protection of any right or fundamental freedom. It also applies to private entities that receive public resources and benefits, utilize public funds, engage in public functions, provide public services or have exclusive contracts to exploit natural resources. These documents are however not specific to nutrition information.
Monitoring and Evaluation	Monitoring food environments	New Zealand Database of nutrient information for different foods, monitoring of school food environments nationwide	<ul style="list-style-type: none"> There were no policies found specifically targeting the monitoring of food environments and quality of food for nutrients of concern as relates to obesity and NCDs. The National Nutrition Action Plan (NNAP) (2012 – 2017) includes objectives to: <ul style="list-style-type: none"> Strengthen monitoring and evaluation of systems for diet-related NCDs so as to improve the prevention, management and control of diet related NCDs. Strengthen monitoring and evaluation of nutrition intervention in schools and other institutions. The Kenya Bureau of Standards (KEBS) is a government agency responsible for governing and maintaining the standards and practices relating to products, measurements, materials, and processes, as well as their promotion at national, regional, and international levels. This includes food products and processes. However, we found no evidence of monitoring of the food environment and quality of food for nutrients of concern as relates to obesity and NCDs. A national Maternal Infant and Young Child Committee was established to facilitate the implementation and monitoring of the breast milk substitutes bill.
	Monitoring population nutrition status and intakes	USA National annual survey provides detailed national information on health status, disease history	<ul style="list-style-type: none"> The National Nutrition Action Plan's (2012 – 2017) strategic objective 6 focuses on improved prevention management and control of diet related non- communicable diseases, one of the indicators in this objective is to conduct regular population screening for non- communicable diseases and food consumption.

		and nutritional intake of adults and children	<ul style="list-style-type: none"> In addition, standard tools and methodologies for conducting food consumption and nutrition surveys have been developed, including the SMART survey, the Knowledge Attitude Behavior and Practices (KABP) tools. The health Information Systems (HIS) also enables data collection within the health system (Health facilities) that could be used for monitoring, evaluation and programming, however the quality of the data is often compromised and it is also not representative as it is collected from the sick population visiting the health facilities and not from the general population. There are examples of national surveys which have assessed population nutrition status and dietary intakes against specific recommended targets. <ul style="list-style-type: none"> The Kenya Stepwise Survey for Non-Communicable Diseases (2015) The Kenya Demographic and Health Survey (2014) The Kenya Micronutrient Survey (2011) These have not been completed regularly, further, there is no evidence that the recommendations within these reports that have been implemented.
Monitoring population body weight		UK National Child Measurement Program for children’s BMI, assessing children ages 4-6 and 10-11	<ul style="list-style-type: none"> The Kenya National Strategy for the Prevention and Control of Non-Communicable Diseases 2015-2020 calls for periodic surveys of NCDs and their risk factors (including anthropometry), and allocation of resources for the same at county level. Examples of surveys that have been completed include: <ul style="list-style-type: none"> The Kenya Stepwise Survey for Non-Communicable Diseases (2015) was the first nationally representative survey aimed at collecting comprehensive information on risk factors for NCDs in adults aged 18–69 years in the country (not including children). Anthropometric measurements were taken for the determination of overweight and obesity. However, these measures are not undertaken regularly. The Kenya Demographic and Health Surveys include anthropometric data collection for children, adolescents, and women of reproductive age. Obesity is reported as among the key health indicators in the country. The Kenya National Micronutrient Survey (last conducted in 2011 - 2012), includes anthropometric data collection for both children and adolescent and overweight/obesity is report among the key health indicators in the country.
Monitoring of NCD risk factors		OECD countries Most have robust prevalence, incidence and mortality data for the main diet-related NCDs and NCD risk factors	<ul style="list-style-type: none"> The Kenya National Strategy for the Prevention and Control of Non-Communicable Diseases 2015-2020 calls for periodic surveys of NCDs and their risk factors, and allocation of resources for the same at county level. The Kenya Stepwise Survey for Non-Communicable Diseases (2015) was the first nationally representative survey aimed at collecting comprehensive information on risk factors for NCDs among adults aged 18–69 years in the country. However, these measures are not done regularly
Evaluation of major programs and policies		USA The National Institutes for Health has dedicated funding for evaluating new policies/programs expected to influence obesity-related behaviors	<ul style="list-style-type: none"> The National Nutrition Action Plan (NNAP) (2012 – 2017) highlights the need for enhanced quality and timeliness of data collected so as to ensure effective decision making, through: <ul style="list-style-type: none"> Operationalization of the nutrition monitoring and evaluation framework for the nutrition sector Reviewing, development and dissemination of the appropriate guidelines and tools for surveillance, monitoring and evaluation Strengthening feedback mechanisms on nutrition information among nutrition stakeholders Training managers and service providers on use of DHIS and interpretation of monitoring and evaluation data Strengthening the integration of nutrition indicators in the existing integrated disease surveillance system Promoting use of appropriate technology to enhance quality of data collected A nutrition information technical working group (NITWG), and the Research in Nutrition department within the Ministry of Health’s Unit of Human Nutrition and Dietetics is charged with the responsibility of monitoring and evaluation of key nutrition interventions in the country
Monitoring of inequalities in relation to nutrition		New Zealand All annual Ministry of Health surveys estimate by subpopulations	<ul style="list-style-type: none"> A number of key national strategies/policies have a focus on monitoring vulnerable populations; however, we identified less evidence of regular monitoring: <ul style="list-style-type: none"> The Kenya National Strategy for the Prevention and Control of Non-Communicable Diseases 2015-2020 relies on the guiding principle of an “equity-based approach”, since the disparity in occurrence of NCDs is due to unequal distribution of social determinants of health. The National Food and Nutrition Security Policy (2011) specifically identifies the importance of the protection of vulnerable populations as

			<p>linked to long-term development, since their health and nutrition status and overall well-being is at imminent and serious risk.</p> <ul style="list-style-type: none"> - The Kenya National Bureau of Statistics (KNBS) conducts periodic surveys on health indicator disparities (e.g. mortality and fertility) through the Kenya Demographic and Health Survey, and socioeconomic determinants of health (e.g. through their economic survey), both of which have shown critical geographic and gender disparities in some health indicators. • The National Health Insurance Fund is a government’s scheme, aimed at providing accessible, affordable, sustainable, and equitable and quality social health insurance through optimal utilization of resources. The national scheme seeks to ensure that every individual and/or family enjoy comprehensive In-patient and Out-patient covers to save them from the effects of unpredictable and catastrophic spending on medical bills, and has special subsidies for vulnerable populations including the poor, and elderly, people with severe disabilities and pregnant women and infants. The NCD’s related treatment costs including dialysis, oncology and radiology are among the costs covered by NHIF. • There has been limited focus on the reduction of health inequalities as relates to the disparity in occurrence of NCDs.
Funding and Resources	Funding for nutrition as a proportion of total health spending	Thailand Expenditure report from 2012 showed the government had increased spending on nutrition (excluding food, hygiene control).	<ul style="list-style-type: none"> • We identified limited, clear information on the level of funding for the promotion of healthy eating and healthy food environments, as a proportion of total nutrition spending (14). Some evidence provided insight into more general commitments for/spending on nutrition: • The National Nutrition Action Plan (NNAP) (2012 – 2017) recommends that the government allocates 2.0% of the health budget for nutrition. • The total cost of the NNAP over five years is KES 70 billion (approximately US\$826 million), averaging US\$165 million per year, with a per capita annual cost of less than US\$4. The costing of the NNAP, conducted over a three month period, was spearheaded by the Kenyan Government and UNICEF, with input from additional stakeholders (14). • Government spending on nutrition-specific interventions through the health sector was estimated at 0.5% of the annual health budget, an investment that has been growing at a rate of 0.1- 0.2 % annually for the past five years.
	Research funding for obesity and other NCDs	Thailand National Research Council funded more projects on obesity and diet-related chronic diseases from 2013 to 2014.	<ul style="list-style-type: none"> • The National Food and Nutrition Security Policy (2011) states that the government will initiate appropriate measures, including research, aimed at improving food quality and safety. Further, that the government will also build capacity and ensure the availability of quality and timely food security and nutrition data, information, and analysis, for better formulation and management of integrated food security and nutrition policies, programs, and action. However, the focus above seems to be geared towards sustainable production and availability of food that is diversified, affordable, and helps meet basic nutrition requirements, rather than food/nutrition in relation to obesity and NCDs. • The Science, Technology and Innovation Act (2013), was passed by the Parliament to facilitate the promotion, co-ordination and regulation of the progress of science, technology and innovation of the country; to assign priority to the development of science, technology and innovation; to entrench science, technology and innovation into the national production system and for connected purposes. The Act provides for the establishment of a national research fund, that consist of a sum of money amounting to two per cent of the country’s gross domestic product, provided by the treasury every financial year, the objective of the fund is to facilitate research for the advancement of science, technology and innovation. • The National Research Fund was established in 2015, to support advancement of scientific research, inventions and Innovations and build capacity in ST&I sector for national development. The fund is however not specific to research on NCDs or the food environment
	Statutory health promotion agency with sustainable financing	Australia The Victorian Health Promotion Foundation is an autonomous government agency established as a dedicated health promotion agency.	<ul style="list-style-type: none"> • The Kenya National Strategy for the Prevention and Control of Non-Communicable Diseases 2015-2020 states that action on NCDs must happen in 3 domains: 1) Disease Prevention and Health Promotion, 2) Early Diagnosis and Control of NCDs through Health Systems Strengthening, 3) Monitoring, Surveillance and Research. • There is a dedicated Ministry of Health - Unit of Health Promotion, working with other health units including NCDs and Nutrition on health promotion. However, there is no funding specific for promotion of optimal population nutrition.

			<ul style="list-style-type: none"> An Act of Parliament to establish machinery for making available to the Government advice upon all matters relating to the scientific and technological activities and research necessary for the proper development of the Republic; and for the co-ordination of research and experimental development.
Platforms for interaction	Coordination mechanisms across departments / levels of government	Malta Inter-Ministerial Advisory Council on Healthy Lifestyles (cross-sectoral group) advises the Minister on Health with a life-course approach to nutrition.	<ul style="list-style-type: none"> Some policy documents related to food, obesity, and diet-related NCD prevention have been developed by collaborating government ministries, with input from wider stakeholders. It has been reported that, despite an increasing consensus on the need to adopt a holistic approach to nutrition, formal multi-sectoral and inter-ministerial collaboration is lacking and nutrition-sensitive interventions are not adequately promoted (15). It has also been reported that responsibilities for agriculture, nutrition, and food security lie in different ministries, with minimal formal coordination among them.
	Platforms for government and commercial food sector interaction	UK 'Responsibility Deal' was an initiative to bring food companies and non-government groups together to address NCDs.	<ul style="list-style-type: none"> The goal of SNPSN is to act as the leading platform and center of expertise for promoting action by business to scale-up and sustain the delivery of, and access to, improved nutrition for public health impact. The Kenya Private Sector Alliance (KEPSA)
	Platforms for government and civil society interaction	Brazil The National Council of Food and Nutrition Security (CONSEA) is made up of civil society and government representatives that advises the President's office on matters involving food and nutrition security.	<ul style="list-style-type: none"> In 2012, the Republic of Kenya joined the SUN Movement with a letter of commitment from then Minister for Public Health and Sanitation. SUN civil society is a component of the SUN movement, that rings together civil societies with nutrition agenda together.
Health in all policies	All government policies sensitive to nutrition and inequalities	Slovenia Undertook a Health Impact Assessment in relation to agricultural policy at national level.	<ul style="list-style-type: none"> A number of different population health policies recognize the importance of a HiAP approach: The Kenya Health Policy 2014-2030 is designed to be all-inclusive, balanced, and rational. It concentrates on two major obligations of health, including contribution to economic development provided in the New Constitution of Kenya 2010 and Kenya Vision 2030. The Kenya National Cancer Control Strategy 2017-2022 highlights the need for a multi-sectoral approach, the need to involve both health and non-health sectors, and the need to incorporate health in all sectors to effectively address cancer and associated risk factors. There also needs to be ownership and involvement of all stakeholders at all stages of implementation. The Kenya Health Sector Strategic and Investment Plan (KHSSP) 2013-2017, provides the Health Sector and related Sectors objectives and priorities to enable them move towards attainment of the Kenya Health Policy Directions.

Benchmarking policies for creating healthy food environments in Kenya to prevent diet-related non-communicable diseases (NCDs)

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