Assessment of the Policy Enabling Environment for Large-Scale Food Fortification (LSFF) in Kenya

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Introduction

- Large-scale food fortification (LSFF) programs aim to address micronutrient deficiencies by improving the nutritional status of foods that are widely and frequently consumed in a population

- **Food fortification** consists of "deliberately increasing the content of one or more micronutrients in a food or condiment to improve the nutritional quality of the food supply and provide a public health benefit with minimal risk to health" (WHO)

- Food vehicles used in LSFF programs include wheat & maize flours, salt, sugar, rice, and edible oils and fats

- Micronutrients added to food include vitamins A, B2, B6, and D, folic acid, iodine, iron and zinc

- There is mandatory fortification in Kenya for salt (since 1978) and maize and wheat flours and vegetable oils and fats (since in 2012)

Introduction

- The success of LSFF programs depends heavily on the prevailing policy environment, but little is known about what makes a policy environment supportive to LSFF

- There is a growing literature on the application of frameworks to evaluate LSFF programs but to our knowledge, no previous study has explicitly defined which policy elements matter and assessed their adequacy

- To address this gap, we developed a framework to define and assess the policy enabling environment for LSFF

- To validate the framework and demonstrate how it can be operationalized, we applied it in Kenya

Introduction

- We understand the policy enabling environment for LSFF to be the whole policy landscape that influences and enables or disables fortification activities
  - Informed by various frameworks: business enabling environment, policy as a three-legged stool, policy cycle, Kaleidoscope model, PMCA (Policy inventory, Mapping of stakeholders, Constraint identification and Actions)

- The framework will help answer the following questions
  - What makes a policy environment supportive to LSFF?
  - What is working well and where are improvements needed to ensure successful and sustainable programs?

Assessment framework

- The policy enabling environment is conceptualized as having three domains—policy agenda setting, policy implementation, and policy monitoring and evaluation

- Each domain is captured through indicators that can be evaluated using existing documentation, key informant interviews and/or stakeholder perceptions survey

- Based on 18 indicators

Assessment method

- ## Calculation of the score

  - A four-point Likert scale was used to score each indicator

  - Given descriptions of the indicators, respondents indicated the extent to which they agreed or disagreed with the description

  - 1=completely disagree; 2=somewhat disagree; 3=somewhat agree; 4=completely agree

  - E.g., **Presence of powerful advocates**: There are powerful advocates for LSFF in the country

  - Scores for indicators are summed up, with a minimum total score of 18 and a maximum of 72

  - Indicates if the policy enabling environment is "marginally (<36), "moderately (36-54)", or "highly" favorable (>54) for LSFF activities

Application of framework to Kenya

Domains	Elements	Indicators	Scores
Policy agenda setting	Policy prioritization	Major events	4
		Presence of powerful advocates	4
	Policy formulation	Consultation with stakeholders	4
		Existence of laws and regulations	4
		Clarity of legislation	4
		Program meets needs	4
Policy implementation	Stakeholder engagement	Sustained consultation	4
		Effective coordination	2
		Continued support from stakeholders	3
	Capacities	Capacity of industries	2
		Capacity of regulatory agencies	2
		Level of compliance	2
Policy monitoring and evaluation	Oversight and enforcement	Guidelines for monitoring	2
		Guidelines for enforcement	2
		Enforcement of standards/regulations	2
	Evaluation and reform	Existence of assessment data	1
		Program reach and effectiveness	2
		Consumer education and awareness	1
			TOTAL = 49

Moderately favorable

What do we learn about policy environment for LSFF in Kenya?

- Kenya has achieved the greatest success within the domain of policy agenda setting

- Has realized moderate success in policy implementation

- Has as a weaker record in policy monitoring and evaluation

- The positive trajectory for many indicators points to a promising future for Kenya's LSFF program

What do we learn about policy environment for LSFF in Kenya?

- The assessment yields policy implications for Kenya to improve its policy environment for LSFF--- focus on improving

  - Financial sustainability of the program
  - Processes for surveillance and enforcement
  - Data landscape
  - Consumer education and awareness
  - Capacities--Efforts to support fortification among medium-and small-scale millers

- Assessment method is ready to be applied to other settings and over time

- The framework is comprehensive, straightforward, and applicable at low cost to diverse country settings------ for an entire LSFF program, subprograms, different food vehicles

- It can be used

  - Track progress in each of the domains/elements/ indicators
  - Identify areas/next steps for continued improvement

- As the framework is applied more widely, our understanding of the policy enabling environment for LSFF will continue to deepen

Acknowledgement

- Many countries are faced with the triple burden of malnutrition
  - Undernutrition (stunting and wasting)
  - Overnutrition (overweight and obesity)
  - Micronutrient deficiencies (hidden hunger)

- Most common micronutrient deficiencies: Vitamin A, iron, iodine, folate and zinc

- Micronutrient deficiencies are still prevalent in Kenya
  - 26% of pregnant women exhibit iron deficiency
  - 30.9% and 34.7% of women of reproductive age are deficient in folate and vitamin B12
  - 80% of the population experiences zinc deficiency

Table 1. Description of indicators.

Domains	Elements	Indicators	Description
Policy agenda setting	Policy prioritization	1. Major events	A major event has attracted the attention of the public/industry/policy makers to LSFF.
		2. Presence of powerful advocates	There are powerful advocates for LSFF in the country.
	Policy formulation	3. Consultation with stakeholders	There was consultation among stakeholders in the design of the LSFF legislation.
		4. Existence of laws and regulations	There exist laws and/or regulations on LSFF.
		5. Clarity of legislation	The legislation related to LSFF is clear/easy to understand.
		6. Program meets needs	The LSFF program is designed, based on evidence, to meet the population's needs in terms of types and amounts of nutrients and choice of food vehicle.
Policy implementation	Stakeholder engagement	7. Sustained consultation	There is sustained consultation among stakeholders in the implementation of the LSFF program (i.e., the program is well communicated and understood).
		8. Effective coordination	There is effective coordination among stakeholders in the implementation of the LSFF program (i.e., roles and responsibilities are well defined and complementary).
		9. Continued support from stakeholders	There is continued support in terms of enthusiasm, engagement, and assistance from stakeholders in the implementation of the LSFF program.
	Capacities	10. Capacity of industries	Industries have adequate financial/human/physical capacity to meet the fortification requirements.
		11. Capacity of regulatory agencies	Regulatory agencies have adequate financial/human/physical capacity to monitor and enforce the fortification requirements.
		12. Level of compliance	There is a satisfactory level of industry compliance with the fortification requirements.
Policy monitoring and evaluation	Oversight and enforcement	13. Guidelines for monitoring	There exist clear guidelines for monitoring LSFF.
		14. Guidelines for enforcement	There exist clear guidelines for enforcement of LSFF.
		15. Enforcement of standards/regulations	The fortification requirements are adequately enforced (i.e., they are enforced consistently, fairly, and transparently).
	Evaluation and reform	16. Existence of assessment data	Data on LSFF (e.g., volumes, compliance rates) and population micronutrient deficiencies are tracked and reported over time.
		17. Program reach and effectiveness	Program reach and effectiveness is satisfactory.
		18. Consumer education and awareness	Consumers are aware of the importance of fortified foods, accept fortified foods, and know how to identify fortified products in the market.

Assessment of the policy enabling environment for large-scale food fortification :A novel framework with an application to Kenya

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