Thriving public–private partnership to fortify cooking oil in the West African Economic and Monetary Union (UEMOA) to control vitamin A deficiency: Faire Tache d’Huile en Afrique de l’Ouest

Mawuli Sablah, Jennifer Klopp, Douglas Steinberg, Zaoro Touaoro, Arnaud Laillou, and Shawn Baker

Abstract

Background. In sub-Saharan Africa, more than 42% of children are at risk for vitamin A deficiency, and control of vitamin A deficiency will prevent more than 600,000 child deaths annually. In the West African Economic and Monetary Union (UEMOA), an estimated 54.3% of preschool-age children are vitamin A deficient and 13% of pregnant women have night blindness.

Objective: To project the achievements of this West African coalition.

Methods: This article documents the achievements, challenges, and lessons learned associated with the development of a public–private partnership to fortify vegetable oil in West Africa through project reports and industry assessments.

Results. National-level food consumption surveys identified cooking oil as a key vehicle for vitamin A. Stakeholders therefore advocated for the production of fortified vegetable oil at large scale, supported industrial assessments, and reinforced the capacity of cooking oil industries to implement vitamin A fortification through effective coordination of public and private partnerships tied with standards, regulations, and social marketing. Strong alliances for food fortification were established at the regional and national levels. Stakeholders also developed policies, adopted directives, built capacity, implemented social marketing, and monitored quality enforcement systems to sustain fortification for maximum public health impact. The synergy created resulted from the unique and complementary core competencies of all the partners under effective coordination. The initiative began with the 8 UEMOA member countries and now includes all 15 countries of the Economic Community of West African States (ECOWAS), plus Cameroon, Tanzania, and Mozambique, forming a sub-Saharan Africa-wide initiative on food fortification. All members of the Professional Association of Cooking Oil Industries of the West African Economic and Monetary Union (AIFO-UEMOA) now fortify edible oil with vitamin A. Through multisector cooperation, an estimated 70% of the population has access to vitamin A–fortified edible oil in participating countries.

Conclusions. Sustainable fortification of cooking oil is now a reality in all UEMOA countries.

Key words: Coordination, fortification, partnerships, UEMOA, vitamin A

Introduction

Sub-Saharan Africa is home to only 12% of the global population but bears 26% of the global burden of disease, with very weak health delivery systems largely managed by the public sector [1]. The West African Economic and Monetary Union (French acronym UEMOA), part of the Economic Community of West African States (ECOWAS), covers the eight countries in West Africa that use the same currency: Benin, Burkina Faso, Côte d’Ivoire, Guinea-Bissau, Mali, Niger, Senegal, and Togo (fig. 1). The total combined population of the eight countries is estimated at 95 million, of which 17.5% (16.6 million) are children under 5 years of age. These countries rank among the highest in the world in under-five mortality [2]. Under-five mortality in the region is approximately 142 per thousand live births (though it varies widely between countries, ranging from as low as 93 in Senegal to as high as 193 in Guinea-Bissau) [2]. Recent analyses indicate that more than one-third of childhood deaths are attributable to undernutrition [3]. In the region, the rate of underweight is estimated at 21%, wasting at

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Mawuli Sablah, Douglas Steinberg, Zaoro Touaoro and Shawn Baker are affiliated with Helen Keller International, Regional Office for Africa. Jennifer Klopp is affiliated with Helen Keller International, Head Quarters, New York. Arnaud Laillou is affiliated with the Global Alliance for Improved Nutrition (GAIN), Geneva, Switzerland.

Please direct queries to the corresponding author: Mawuli Sablah, Helen Keller International, BP 29898, Dakar Yoff, Senegal; e-mail: msablah@hki.org.
In addition, sub-Saharan Africa is home to 14% of the world’s population with micronutrient deficiencies—nearly 170 million people [4]. Vitamin and mineral deficiencies affect physical and cognitive development and disability among populations, as well as the economic prospects of nations [5]. It is estimated that more than 42% of preschool-age children in West Africa are vitamin A deficient [6]. In the UEMOA region, an estimated 54% of preschool-age children are vitamin A deficient and 13% of pregnant women have night blindness [7] (an indicator of maternal vitamin A deficiency [8]). Vitamin A deficiency increases the risk of morbidity and mortality in young children. Recent evidence shows that subclinical vitamin A deficiency is associated with an increased risk of severe illness and even death from such common childhood infections as diarrhea and respiratory infections [9, 10]. In some settings, vitamin A deficiency may be a risk factor as well for maternal mortality [11, 12]. Even though the coverage of vitamin A supplementation was estimated at 90% in 2011 [2], vitamin A supplementation programs do not extend beyond preschool children, school-aged children, and adolescents in undernourished societies. People outside of these target groups need to be reached with other interventions.

Considerable progress has been made in controlling vitamin A deficiency worldwide [13]; however, there is still a need for additional prevention efforts in the form of dietary diversification, fortification, and supplementation [14]. The Lancet series on maternal and child undernutrition (2008) stated, “Of available interventions, counselling about breastfeeding and fortification or supplementation with vitamin A has the greatest potential to reduce the burden of child morbidity and mortality” [3]. At the second Copenhagen Consensus in 2008, an expert panel of eight outstanding economists, including five Nobel laureates, ranked fortification with micronutrients (vitamins and minerals) among the top three international development priorities [15]. A new recommendation for fortification of wheat flour with vitamin A has been accepted [16]. Vegetable oil is, however, recognized as the most suitable vehicle for vitamin A fortification. Food fortification has proven to be a sustainable, cost-effective strategy to improve vitamin and mineral status [17, 18], with documented evidence for the efficacy and effectiveness of vitamin A fortification initiatives [19–24].

**Approach to building the partnership**

In 2002, key regional partners supported Fortification Rapid Assessment Tool (FRAT) surveys in several countries in West Africa to gather data specific to the most vulnerable groups, i.e., children 12 to 36 months and women 15 to 49 years of age. This approach...
largely followed World Health Organization (WHO) recommendations on how to implement a food fortification program by establishing estimates for coverage, frequency, and per capita amount of cooking oil consumed [25]. These nationally representative, cross-sectional cluster surveys assessed the consumption patterns of potential fortifiable foods by women and children. Cooking oil, wheat flour, sugar, and bouillon cubes were therefore identified as key food vehicles for reaching women and children with essential micro-nutrients, including vitamin A (table 1). According to Dary and Mora [26], all the countries were eligible for vegetable oil fortification with vitamin A, as the per capita amount of oil or margarine consumed was greater than 5 g/day (1.8 kg/year).

In 2004, at the general assembly meeting of the Professional Association of Cooking Oil Industries of the West Africa Economic and Monetary Union (AIFO-UEMOA), Helen Keller International brokered a win–win strategic negotiation to support local cooking oil industries to add value to their product to compete over imported products while enabling governments of member countries to address a public health challenge. AIFO-UEMOA therefore adopted a resolution to embark on vitamin A fortification of all cooking oil produced by their 15 member industries, leading to the regional Tache d’Huile initiative. Helen Keller International, the Global Alliance for Improved Nutrition (GAIN), and the Micronutrient Initiative (MI) undertook and other nutrition partners concurrently advocated with the public and private sectors to collaborate on fortifying cooking oil with vitamin A. These stakeholders organized regional dialogues and created multisectoral national alliances at the national level while supporting industrial evaluations to assess the technical capacity reinforcement required by cooking oil industries to engage sustainably in fortification.

Forging a strong alliance of cooperation among national governments, international agencies, the private sector, and civil society has been an important pillar of the food fortification program in the region (fig. 2). The partnership was broadened nationally and regionally with the vision of ensuring public sector ownership of the regional initiative by the UEMOA Commission. The bottom-up approach engaged the Department of Enterprise Development of the commission to focus attention on advocacy with member industries of AIFO-UEMOA that already considered the vitamin A fortification initiative as part of their corporate social responsibility through a value-addition process that afforded them a competitive edge over non fortified imported oil. The industries understood and underscored the need to increase the threshold of vitamin A intake by vulnerable populations that

<table>
<thead>
<tr>
<th>Product</th>
<th>Côte d'Ivoire</th>
<th>Burkina Faso</th>
<th>Mali</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sugar</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of mills</td>
<td>4</td>
<td>1</td>
<td>2 (+ 1 in development)</td>
</tr>
<tr>
<td>Total available for fortification (MT)</td>
<td>188,000</td>
<td>43,000</td>
<td>45,000a</td>
</tr>
<tr>
<td>Annual per capita consumption (kg)</td>
<td>12</td>
<td>3.8</td>
<td>4</td>
</tr>
<tr>
<td>Daily per capita consumption (g)</td>
<td>33</td>
<td>10.4</td>
<td>11</td>
</tr>
<tr>
<td><strong>Vegetable oil</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of industries</td>
<td>3</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Total available for fortification (MT)</td>
<td>181,000</td>
<td>46,000</td>
<td>64,000</td>
</tr>
<tr>
<td>Annual per capita consumption (kg)</td>
<td>11.3</td>
<td>4.2</td>
<td>5.8</td>
</tr>
<tr>
<td>Daily per capita consumption (g)</td>
<td>31</td>
<td>11.4</td>
<td>16</td>
</tr>
<tr>
<td><strong>Wheat flour</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of mills</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Annual per capita consumption of fortifiable wheat flour (kg)</td>
<td>12.3</td>
<td>5.3</td>
<td>7.5b</td>
</tr>
<tr>
<td>Daily per capita consumption of fortifiable wheat flour (g)</td>
<td>33.7</td>
<td>14.5</td>
<td>20.6</td>
</tr>
<tr>
<td><strong>Bouillon cubes</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of industries</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Total available for fortification (MT)</td>
<td>11,400</td>
<td>6,000</td>
<td>10,500</td>
</tr>
<tr>
<td>Annual per capita consumption (kg)</td>
<td>0.69–0.84</td>
<td>0.55</td>
<td>1.02</td>
</tr>
<tr>
<td>Daily per capita consumption (g)</td>
<td>1.9–2.3</td>
<td>1.5</td>
<td>2.8</td>
</tr>
</tbody>
</table>

Source: Adapted from Bégin et al. [4].

a. Not including imported sugar.
b. Assuming imported flour will be fortified.
have access to fortified oil and fully collaborated with stakeholders to develop standards and adopt a common logo for branding fortified cooking oil in the UEMOA region. This strong public–private cooperation throughout the region has ensured the scale-up and sustainability of the *Tache d’Huile* initiative.

Since 2005, the food fortification partnership has grown significantly. In UEMOA, Mali and Côte d’Ivoire, through funding from GAIN and the leadership of Helen Keller International as the lead implementing agency, became the first countries to launch vitamin A–fortified cooking oil in 2006 and 2008, respectively (see boxes 1 and 2 for achievements and lessons learned). Since then, all seven countries with cooking oil industries have also launched cooking oil fortification, with the exception of Guinea-Bissau, which does not have any local cooking oil refineries but is taking steps to ensure that all imported cooking oil is fortified and conforms to the regional standards. In 2010, Senegal also received a large grant from GAIN to implement a large-scale fortification project (box 3). This will further concretize the achievements of the first phase of *Tache d’Huile*, funded largely by the US Agency for International Development (USAID) and the Michael & Susan Dell Foundation.

Partnership networks are being consolidated at both the regional and the national levels, with continued strengthening of industrial capacity. Partners have succeeded in equipping industries in the region and have established the regulatory framework through regional and national standards for fortifying cooking oil. The goal of the *Tache d’Huile* initiative was to leverage the 15-member AIFO-UEMOA to ensure vitamin A status of vulnerable populations. This initiative will facilitate the marketing and use of fortified vegetable oil within the region. The objectives of the initiative were to establish harmonized regional standards and regulation on vitamin A fortification of cooking oil, build the capacity of the public–private sector institutional partners, develop and disseminate public-sector social marketing of vitamin A–fortified cooking oil, and reach at least 70% of the population of UEMOA with at least 30% of the Recommended Daily Allowance (RDA) of vitamin A through fortified cooking oil.

Food fortification as a regional policy and strategy...
received strong political support with the signing of the memorandum of understanding between Helen Keller International and the UEMOA Commission to implement the Tache d'Huile project. Regional and national stakeholders continued to dialogue, plan, and implement large-scale food fortification programs in West Africa. A second dialogue following the first one held in Accra in 2002 was hosted by Mali in 2007 in Bamako. For this meeting, great efforts were made to map out the geographic distribution of the use and production of different vegetable oils in sub-Saharan Africa (fig. 3). The focus in the second dialogue was on expanding beyond vitamin A fortification of cooking oil (which began in Côte d'Ivoire and Mali and subsequently grew into the regional Faire Tache d'Huile en Afrique de l'Ouest initiative to all 15 member countries of ECOWAS) to include fortification of wheat flour with micronutrients. This eventually resulted in a regional initiative on micronutrient fortification of
Public–private partnership to fortify cooking oil in West Africa

BOX 3. Achievements and lessons learned from Senegal

Achievements
In 2002, the Cellule de Lutte Contre la Malnutrition (CLM) was established within the Prime Minister’s Office, in an effort to institutionalize nutrition policies and programs.

In October 2009, a decree making fortification of edible oils with vitamin A compulsory was signed by the President. The legislative and regulatory framework for the establishment and definition of the role of each governmental entity was subsequently defined.

Two vegetable oil refineries are part of the national fortification program.

The two vegetable oil refineries have developed and effectively implemented quality control protocols. External quality control procedures are also in place, and samples are being analyzed by the Domestic Trade Directorate.

It is estimated that 65,000 MT of vegetable oil will have been fortified in 2011, which represents approximately 46% of the market.

Lessons learned
Establishment of the CLM has put nutrition at the highest level of the national health agenda. It has allowed coordination of sectorial interventions involving both public and private partners and strengthened the accountability of stakeholders. It has also facilitated decentralization of the results-based management by rolling out a planning and monitoring system from the national to the community level.

Technical expertise of international partners has been instrumental in the implementation of the food fortification program in Senegal, particularly by supporting the development of the national food fortification standards and industry assessment. Contributions to support the procurement of equipment and premix were also critical to offset the initial costs of the fortification program and facilitate the enrollment of industries in the program.

FIGURATIVE EXPRESSO

wheat flour, which was launched in September 2007 at the Clinton Global Initiative as the Fortify West Africa initiative. Currently, USAID has provided funding for the implementation of this second phase of the project.

The Faire Tache d’Huile en Afrique de l’Ouest multipartnership initiative (between representatives of country governments, the ECOWAS Commission, and nongovernmental agencies) laid significant emphasis on the role of private sector industries in addressing vitamin and mineral deficiencies in vulnerable populations and engaged the appropriate government agencies to create a favorable environment through regulations and standards as well as quality assurance systems that would ensure access by vulnerable populations to vitamin A–fortified cooking oil. Helen Keller International and partners have played a key role as brokers for the multipartner public–private initiative. The Faire Tache d’Huile name connotes the snowball effect, which figuratively expresses the scope and outcomes of a multicountry, multipartnership approach to vitamin A fortification of cooking oil in the region. The initiative now includes the fortification of wheat flour with iron, zinc, folic acid, vitamin B₁₂, and other B-group vitamins under the “Fortify West Africa” initiative. The fortification of these two food vehicles, vegetable oil and wheat flour, with micronutrients has been realized through the commitment of large-scale industries supported by strong policies driven by regional ministerial resolutions [27, 28], as well as mandatory decrees by national governments within ECOWAS [29, 30], the financial resources from a range of public and private funders (GAIN, the Michael & Susan Dell Foundation, USAID, the government of Taiwan, and MI), and the catalyzing role of nongovernmental organizations.

Results of the partnership

Disability-adjusted life years (DALYs) saved through this fortification effort can be estimated using available mortality figures, vitamin A deficiency figures, and coverage estimates. It is estimated that approximately 589,000 deaths of children under 5 years of age occur in the UEMOA region each year. Of those, approximately 61,000 occur among infants 6 to 11 months old and 257,000 among children 12 to 59 months old, the age groups for which vitamin A deficiency control has documented impact on mortality reduction (personal communication). The DALYs saved were calculated on the assumption that the value added in preventing deaths through vitamin A fortification would be among those infants and children not already being protected by vitamin A supplements. For these populations, it was assumed that access to vitamin A–fortified cooking oil would be the same as in the general population (70%), and that the amounts of vitamin A delivered would be adequate to correct deficiency, resulting in an average 23% reduction in mortality. This reduction in mortality would result in an estimated 14,300 deaths averted per year. For calculating DALYs, information on age-specific life expectancy was not available for every country, so life expectancy at birth was used. The estimates did not take into consideration any disabilities (only mortality) but resulted in an estimated 740,000 DALYs gained per year.

Following analysis of the DALYs gained through vitamin A fortification of cooking oil in UEMOA, it was estimated that the initiative will cost $194 per death averted and $3.79 per DALY saved, with the private sector assuming full responsibility for recurrent costs and making the program particularly cost effective for the minimal initial investment by the public sector and other stakeholders.

Currently vitamin A–fortified cooking oil is estimated to be reaching 55 million people in UEMOA.
countries, of whom over 8 million are children under five and over 6 million are pregnant or lactating women (table 2). The ENRICH logo (fig. 4) for branding fortified foods in UEMOA allows consumers to recognize fortified products throughout the region (fig. 5). This is the harmonized regional logo around which social marketing activities are implemented to inform and guide the consumer to identify, purchase, and consume the fortified foods. Regional and national social marketing of fortified foods has created awareness and yielded strong political commitment to food fortification. Private television, radio, and print media have played a key role in communicating and sensitizing the population and consumers to the benefits of fortified foods.

![Map of the vegetable oil sector in the sub-Saharan African region. Source: adapted from the second private sector/public sector food fortification dialogue in West Africa](image)

**FIG. 3.** Map of the vegetable oil sector in the sub-Saharan African region. Source: adapted from the second private sector/public sector food fortification dialogue in West Africa

<table>
<thead>
<tr>
<th>Country</th>
<th>Est. 2008 Population (UNICEF)</th>
<th>Est. 2010 coverage of fortified oil (%)</th>
<th>Est. coverage of fortified oil by 2013 (%)</th>
<th>Est. daily per capita consumption of fortified oil (g)</th>
<th>Estimated total fortified oil consumption in UEMOA countries by 2010 (MT)</th>
<th>Est. population &lt; 5 yr with access to fortified oil by 2013</th>
<th>Stage of current fortification program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benin</td>
<td>8,662,000</td>
<td>70</td>
<td>75</td>
<td>16.71</td>
<td>108,542</td>
<td>1,087,500</td>
<td>Mandatory</td>
</tr>
<tr>
<td>Burkina Faso</td>
<td>15,234,000</td>
<td>70</td>
<td>75</td>
<td>12.74</td>
<td>145,610</td>
<td>2,200,500</td>
<td>Voluntary</td>
</tr>
<tr>
<td>Côte d’Ivoire</td>
<td>20,591,000</td>
<td>70</td>
<td>75</td>
<td>35.96</td>
<td>555,393</td>
<td>2,354,250</td>
<td>Mandatory</td>
</tr>
<tr>
<td>Guinea-Bissau</td>
<td>1,575,000</td>
<td>15</td>
<td>60</td>
<td>29.85</td>
<td>28,212</td>
<td>159,000</td>
<td>Policy plan</td>
</tr>
<tr>
<td>Mali</td>
<td>12,706,000</td>
<td>65</td>
<td>75</td>
<td>18.17</td>
<td>173,185</td>
<td>1,655,250</td>
<td>Voluntary</td>
</tr>
<tr>
<td>Niger</td>
<td>14,704,000</td>
<td>55</td>
<td>75</td>
<td>12.80</td>
<td>141,148</td>
<td>2,340,750</td>
<td>Mandatory</td>
</tr>
<tr>
<td>Senegal</td>
<td>12,211,000</td>
<td>65</td>
<td>75</td>
<td>43.12</td>
<td>394,934</td>
<td>1,534,500</td>
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</tr>
<tr>
<td>Togo</td>
<td>4,590,006</td>
<td>70</td>
<td>75</td>
<td>23.12</td>
<td>79,602</td>
<td>710,250</td>
<td>Mandatory</td>
</tr>
<tr>
<td>Total/average</td>
<td>90,273,006</td>
<td>75</td>
<td>75</td>
<td>1,626,625</td>
<td>1,626,625</td>
<td>12,042,000</td>
<td></td>
</tr>
</tbody>
</table>

*Since March 2012
**Since May 2012

TABLE 2. Estimated coverage of vitamin A–fortified cooking oil in UEMOA countries by the end of “Tâche d’Huile” in 2010

*Peanut oil*
*Cottonseed oil*
*Palm oil*
*Sunflower oil*
*More than 1,000 MT/yr
foods, using the regional logo ENRICHI through social marketing. The social marketing component was organized around the celebration of the Golden Jubilee of countries after independence. Leading stakeholders (the UEMOA Commission and national governments) partnered with regional television stations such as Africable to organize a road caravan through more than 100 towns and cities to sensitize the population about fortified foods. Radio jingles, television advertisements, posters, billboards, interviews, broadcast documentaries, and memorabilia in the form of printed shirts, cups, calendars, greeting cards, and brochures served as major channels of communication under the social marketing strategy.

Local industries cover an estimated 70% of the demand for cooking oil in the region, with strong intraregional trade. For example, Côte d’Ivoire exports cooking oil to Burkina Faso, Mali, and Senegal, and fortified cooking oil from Burkina Faso is imported into Mali. With mandatory legislation, effective external control, and an informed consumer population, fortification of cooking oil could effectively complement other nutrition interventions to control vitamin A deficiency in vulnerable populations. The UEMOA Commission coordinated the efforts of member states to establish regional standards for fortifying 10 different types of cooking oil [31]. Control of fortified cooking oil and inspection at borders and ports of member countries of the region are required to ensure that imported fortified cooking oil conforms to these standards. Many of the countries that are at advanced stages of fortification, such as Burkina Faso, Benin, Togo, and Niger, have drafted mandatory legislative decrees that are being signed and gazetted for mandatory application. There is still a need to reinforce the regulatory systems of countries in the region, a top priority for future endeavors to promote fortification. Additional technical support to food control laboratories is needed so that they are appropriately equipped and staffed to undertake micronutrient analysis. The development of new portable devices such as iCheck CHROMA is essential for an efficient enforcement of legislation.

National alliances for food fortification continue to function in Benin, Burkina Faso, Côte d’Ivoire, Guinea-Bissau, Mali, Niger, Senegal, and Togo. These alliances provide a forum for national-level strategic thinking and oversight of food fortification. The membership of the national alliances includes the ministries of health, commerce and industry, finance, and communications; agencies responsible for food regulation; United Nations agencies (UNICEF, World Food Programme, WHO, Food and Agriculture Organization); nongovernmental organizations; research institutions; industries; food importers; consumer associations; and the media. They generally meet quarterly to deliberate on the implementation of national strategic plans for food fortification. Effective coordination has been required to manage this multistakeholder initiative and avoid conflicts of interest. The distinctive factor was how the initiative operated both at the level of individual member states and through regional bodies, with a central focus on building the capacity of local industries to embark on fortification while government institutions concurrently create the favorable policy environment to guarantee sustainability. Synchronizing these different processes made coordination essential through a bottom-up approach, driven by the private sector industries and supported by public sector political will. AIFO-UEMOA has ensured that any new membership is preconditioned on embarking on
cooking oil fortification. Other strategic private sector partners, such as premix suppliers and equipment manufacturers, have engaged with food industries to provide technical support.

This initiative has faced challenges due to government bureaucracy, and lengthy time periods have been required for ratifying standards and passing mandatory fortification decrees. In addition, the regulatory environment for the control of imported and locally produced food was weak in most countries within the subregion. To address these challenges, the second phase of the initiative is accelerating the process of working with countries to ensure a concurrent approach to future food fortification strategies, where mandatory policies are passed alongside capacity reinforcement of external regulatory systems. Rapid quantitative analytical test kits for vitamin A will facilitate implementation and enforcement of mandatory regulations at entry points to countries. Selected laboratories have been provided with high-performance liquid chromatography (HPLC) systems in Burkina Faso, Côte d’Ivoire, and Mali, and intercountry analysis is now carried out on samples of fortified oil throughout the region.

**Lessons from the Food Fortification Partnership**

Private sector industries can respond quickly to an urgent need to act and are often eager to embark on fortification once convinced of the added value and benefits. However, sustainability is ensured only through the establishment of mandatory policies and efficient enforcement of the decrees that create a level playing field for all industries (including imports). Government works at a different pace and is usually slow in passing mandatory regulations for fortification. Policy development requires a significant length of time, attention to detail, mobilization of evidence, advocacy, and painstaking construction of alliances within and outside government. This advocacy process can be derailed by the rapid turnover of government officials. Having an on-the-ground presence and understanding the local context is required for nurturing the public–private partnerships required to sustain food fortification. Large-scale food fortification is a complementary nutrition strategy and should be accompanied by other strategies for addressing vitamin and mineral deficiencies, such as supplementation, dietary diversification, and optimal infant and young child feeding practices.

At the heart of the partnership are the food industries, which are primarily responsible for fortification while all other stakeholders within the partnership network are facilitators. Each partner brings unique and complementary competencies that create the synergy needed to achieve impact. Industries recognize the strength achieved by uniting their efforts, and the public sector must continue to create and maintain the favorable regulatory environment for private food industries. The *Faire Tache d’Huile en Afrique de l’Ouest* initiative demonstrates the impact of a private and public sector joint effort to address a public health challenge through a bottom-up approach.

**Next steps**

It is urgent to accelerate the approval of UEMOA standards on fortified foods with micronutrients and make them mandatory in the entire region. At the same time, it is essential to take measures to improve the system of quality control and to explore the possibility, at the UEMOA level, of favorable taxation on imports of premix at reduced cost. In addition, improving quality control will allow fighting against fraud on imports of oil and ensuring fair competition between companies engaged in food fortification.

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Public–private partnership to fortify cooking oil in West Africa
implementation agencies include Helen Keller International, the West African Economic and Monetary Union (UEMOA), the West Africa Health Organization (an agency of ECOWAS), UNICEF, the Professional Association of Cooking Oil Industries of the West African Economic and Monetary Union (AIFO-UEMOA), and the technical ministries of the governments of the member countries of UEMOA.

The authors confirm that this manuscript is an original work that has not been submitted for publication elsewhere, nor do they have any potential financial or any other conflicts of interest in publishing this manuscript. Each author has seen and approved the form and content of the submitted manuscript.

References


