

Press Release

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Nigeria to lead globally in developing a digital solution to guarantee nutritional quality of staple foods

International partnership and Nigerian government to work with fortified food producers on state-of-the-art system to secure nutrients in foods to lift health, resilience and productivity

With the support of the Bill and Melinda Gates Foundation, the Nigerian government, Global Alliance for Improved Nutrition, BASF, Bioanalyt, Camelot Consulting Group, DSM, GH Labs, Hewlett Packard Enterprise, and TechnoServe have today launched a pilot programme to develop a digitized system to ensure staple foods are fortified with the right levels of essential vitamins and minerals to support good health and nutrition. The system will also track the fortified foods to ensure they are reaching Nigerian consumers efficiently.

The fortification of wheat flour, maize flour, vegetable oil, margarine, salt and sugar has been mandatory in Nigeria for over 10 years, but assuring that the micronutrient content of the foods meets Nigeria's national standards has been challenging. Foods have often been found to be inadequately fortified or even unfortified when spot-tested at the market level. This has slowed the contributions of food fortification to fighting Nigeria's high levels of micronutrient deficiencies, which include life-threatening deficiencies in iron, vitamin A, zinc, folic acid, and iodine.

Among the country's severe health challenges, anemia is driven by insufficient iron in the diet. In 2019, 68.9% of Nigerian children under-5 were anemic, which causes permanent developmental setbacks. Childhood anemia was found in research by Istanbul University to reduce intelligence test scores by 6% to 15%, while other academic studies have reported a halving in motor skills and lifelong vulnerabilities to kidney and heart disease. Likewise, more than 50% of Nigerian women are anemic, which is a driver of maternal deaths. Nigeria has the 4th highest rate of maternal deaths on earth, with women suffering from severe anaemia more than twice as likely to die in childbirth.

However, the fortification of wheat flour and maize flour with iron can reduce the prevalence of anaemia by as much as 34%.

The country is similarly suffering from widespread vitamin A deficiency, which suppresses the immune system, thus pushing up disease levels. Deficiencies in other essential vitamins and minerals can cause extreme fatigue, cut productivity, and increase levels of depression and social alienation, in a toxic combination that the World Bank estimates, altogether, costs Nigeria \$1.5bn a year in lost GDP.

For the country's fortified food producers, the digital revolution now presents new opportunities to prevent fortification shortfalls, while simultaneously increasing the efficiency and profitability of their businesses.

“We anticipate this system will allow companies to assure every customer that the nutrient content of their product is guaranteed, reducing health risks and offering a direct path to longer and healthier lives,” said Dr. Michael Ojo, country director for GAIN Nigeria.

“The digitization initiative is definitely a win-win for the private sector and public health in Nigeria,” said Ogunbela Oludare, Technical Manager from PZ Wilmar, a leading oil producer in Nigeria, “Digitization will help Nigerian producers to ensure that we are meeting national standards for fortification while simultaneously increasing the efficiency and profitability of our businesses.”

“The foundation is investing in food fortification markets to provide quality nutritious foods that are affordable for all consumers. Digital innovation will allow nutritional improvements to be assessed and maintained over time,” said Andreas Bluethner, Director of Nutrition at the Bill & Melinda Gates Foundation.

The oil producers selected to participate in the pilot will receive support from a team of digital experts to co-design and install the new digital quality assurance/quality control system. The system will utilize state of the art diagnostic tools, from in-line sensors to monitor production flows to calibration aids and reporting software, that can deliver guaranteed quality and insights important to producers’ bottom line.

The four-year pilot project is being implemented in Nigeria by GAIN as part of its worldwide commitment to supporting staple food fortification and ensuring better nutrition for all.

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