

**Better Nutrition, Brighter Future.  
The Ajinomoto Foundation  
Nutrition Improvement Project**

**Solving malnutrition in developing countries**

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**Contributing to a Brighter Future of Children through Nutrition improvement**

**What is the Ghana Nutrition Improvement Nutrition Project?**

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Since its foundation, the Ajinomoto group has built up a wealth of knowledge in the field of food and amino acids, which it today utilize to help solve the pressing issue of malnutrition in developing countries.

The Ghana Nutrition improvement Project was launched to achieve the aforementioned aspiration via a social business. Under this project, our local partners manufacture and sell a supplement that improve the nutrition balance of weaning food, thereby helping improvement the nutritional status of local children in weaning period.

The Ajinomoto Group started this project in 2009 as part of initiatives to commemorate its centenary. The Group has since been steadily implementing the project in cooperation with the government of Ghana, University of Ghana, and other international NGOs and corporates.

In April 2017, the project was transferred to The Ajinomoto Foundation to realize more social impact in collaboration with public sectors (such as Ghana Health Service).

Eating nutritious food is essential to the lives of people. Though the project in Ghana, we will establish a social business model to achieve nutrition improvement of children for their brighter future.

## **The first 1,000 days**

### **For a More Sound and Brighter Future of Children**

#### **Nutrition in the First 1,000 Days**

##### **Provided the Foundation for Children's Future**

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Malnutrition, which is a serious issue in developing countries, give various adverse effects to the physical and intellectual growth of children, In these countries, it is critical to improve the nutrition status of children especially during their first 1,000 days or the first three years from conception to their second birthday, because it is said that the growth retardation of children during the period cannot be recovered even by sufficient nutrition intake in the subsequent stage of their lives. In response, the Ajinomoto Group launched a project to address malnutrition among weaning infants aged between six months and two years. Under the project we will contribute to a sound future of local children by providing a supplement to be added to the traditional porridge called "koko", which is fed to weaning infants in Ghana but is deficient in nutrients such as protein and micronutrients

##### **KOKO Plus addresses malnutrition among the children of Ghana**

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Koko is a traditional complementary – food porridge made from fermented corn- in Ghana. However, the levels of protein and micronutrients in koko do not meet the WHO's nutrient requirements and dietary recommendations. As a result, children over 6 months old who eat koko show growth retardation, with about 30% of 2-year old children suffering from stunting. Moreover many such stunted children also have problems in the development of immune system and intellectual capability. In order to address this issue, the Ajinomoto Group in collaboration with various partners has developed KOKO Plus, a supplement containing amino acids, which is added to koko during cooking, providing sufficient nutrients for children.

##### **Creating a Brighter Future through Social Business with Multi-stakeholder Partnership**

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The Ajinomoto Foundation is supporting the activities of various partners to establish "Social Business", which can contribute to nutrition improvement of children in developing countries. "Social Business" is defined as sustainable business which can contribute to solving social problems such as malnutrition. In

creating Social Business, it is essential to have partnership with wide range of stakeholders such as the local government, local academia, local private companies, international NGOs, international aid agencies etc. The key for success is to have mutual understanding and trust among stakeholders, experienced NGOs, international organizations and other corporate entities.



#### In depth understanding of Local Needs

The nutritional supplement should be “Acceptable” (respecting local food culture, taste), “Affordable” and “Aspirational” (Mothers feel proud of giving the supplement for their children). In order to develop such product, it is essential to conduct joint research with local academia including University of Ghana, international NGOs and NPOs.

#### Building up an Innovative Distribution Model

In most of the developing countries, it is a challenge to reach target population, living mainly in rural areas because of lack of reliable distribution system. It is called the “Last Mile delivery” problem. It is necessary to have an innovative distribution model to address this issue. For example in the northern part of Ghana, we are testing a delivery system with a network of sales ladies using VSLA (Village Savings and Loan Association) developed by international NGO as a platform.

### Communicating the importance of Nutrition to Local Mothers

It is necessary for local mothers to have correct knowledge about nutrition as a precondition to encourage the mothers to make appropriate use of KOKO Plus to improve the nutritional status of their children. We are providing local mothers with nutrition education in close cooperation with Ghana Health Service, a Ghana government organization belonging to Ministry of Health. We will also use Maternal and Child Health Record Book, which has been promoted by JICA in Ghana as a tool to disseminate information on nutrition to mothers.

### Producing Locally with a Local Partner

Local production using locally available ingredients such as soybean helps foster local agriculture and create employment. We are building up a sustainable business model by transferring know-how on the food production including quality assurance to local production partner, Yedent, in Ghana.

### Nutritional Efficacy Study

The study had three groups of children with a study period of one year, from 6 months to 18 months old. The first group was given KOKO Plus as a nutritional supplement, the second group was given only micronutrients and the third group was without any supplements. Each group consisted of around 300 children and was compared for growth and health condition such as anemia. The same nutrition education was provided to all the groups.

A model analysis with the assumption that the rate of the delivery of the supplements to the subjects was 100%, proved that KOKO Plus was the most effective in preventing stunting. Moreover a comparison of the hemoglobin levels revealed that KOKO Plus was also the most effective in preventing anemia.

<Publication>

Shibani Ghosh et al.

Effect of the provision of a macro- and micro-nutrient fortified complementary food supplement on nutritional status of Ghanaian infants." (submitted to American Journal of Clinical Nutrition.)

### Distribution Model Effectiveness Study

The following 2 distribution models were compared.

1. With a network of sales ladies (Village Based Entrepreneurs) in collaboration with International NGO, CARE, the product was distributed over a yearlong period in a region with agricultural villages in the Northern Region.
2. The sales campaign combining social marketing for demand creation and

conventional retail outlets was tested in collaboration with ESM for a period of one year in the Eastern Region of the Southern part of Ghana.

Sales with the network of the sales ladies was extremely effective in promoting better understanding of nutrition among mothers and achieving “behavior change” to select nutritionally balanced foods including nutrition supplement like KOKO Plus for their children. Meanwhile the social marketing campaign in the Southern part of Ghana revealed that providing nutrition education at a public health centers and utilizing local radio stations was particularly effective in creating demand of KOKO Plus.

<Publication>

Grant J. Aaron et al.

PLOS ONE | DOI:10.1371/journal.pone.0162462 October 18, 2016

Assessing Program Coverage of Two Approaches to Distributing a Complementary Feeding Supplement to Infants and Young Children in Ghana

Scaling up the project to create a sustainable business model with KOKO Plus After the project was transferred to The Ajinomoto Foundation (TAF), based on the results of the pilot studies, TAF is trying to establish a sustainable social business model by scaling up the production and distribution of KOKO Plus in collaboration with various stakeholders. TAF is currently partnering with CARE, an international NGO with the fund from Ministry of Foreign Affairs of Japanese government in providing nutrition education and selling KOKO Plus in agricultural communities in the Northern Region. It will also be partnering with JOICFP with the fund from JICA. In the Southern part of Ghana, TAF is collaboration with EXP/EXM in creating demand of KOKO Plus through social marketing. Maternal and Child Health Record Book, which was introduced by JICA to Ghana Health Service will be used as a tool to disseminate the knowledge on nutrition and information on the usage of KOKO Plus. Ghana Nutrition Improvement Project is attracting attention as a model of sustainable social business which is realized by partnership with multiple stakeholders.