Micro-nutrient Deficiency: A SIGNIFICANT REPRODUCTIVE AND CHILD HEALTH ISSUE

*COVID-19 & Nutrition
*Logo Design Competition
We are BUZZ, a publication of Society for Family Health (SFH). SFH is a leading public health NGO in Nigeria, working in partnership with the government, local and international donors and partners in the delivery of health programmes aimed at malaria prevention and control, delivery of safe water systems, prevention and treatment of HIV & AIDS, improvement of maternal, neonatal and child health services and access, expansion of family planning access, provision of tuberculosis prevention & treatment services, etc.

BUZZ is our youth-focused newsletter that brings to you updates on all our youth programmes and interventions, it is also aimed at informing donors and youth-led organisations of opportunities to partner with SFH and will be providing general tips to living a healthy, youthful and productive lifestyle.

In this fourth edition of BUZZ, we aim to provide information on Addressing Micro-nutrient Deficiency: A significant Reproductive and Child Health issue

**DID YOU KNOW?**
Your food choices each day affect your health — how you feel today, tomorrow, and in the future (PSCFN, 2017.)

**FACTS**
- Two billion people suffer from micro-nutrient deficiency globally - WHO.
- Anaemia affects more people than any other health condition – WHO.
- Nigeria accounts for 20 percent of all global maternal deaths – WHO.
- It is estimated that 13 percent of all years lost due to ill-health, disability, or early death are caused by diarrhoea – UNICEF.

According to the World Health Organisation (WHO), malnutrition is a threat to the world’s public health. Nigeria is burdened with a triple burden of malnutrition (under-nutrition, over nutrition and micro-nutrient deficiency/hidden hunger). Micro-nutrient deficiency/Hidden hunger is defined as a lack of essential vitamins and minerals required in small amounts by the body for proper growth and development.

Women of reproductive age and children are at higher risk of suffering from micro-nutrient deficiency because pregnancy and childhood increase the need for specific vitamins and minerals.

Essential micro-nutrients include (but are not exclusive to): iron, zinc, calcium, iodine, vitamin A, B-vitamins, and vitamin C. Micro-nutrients are available in foods and can also be provided through direct supplementation. Unlike macro-nutrient deficiency, the health outcome of micro-nutrient deficiency is not usually visible. Micro-nutrient deficiency can be caused by suboptimal diets, consumption of poor quality staples, inadequate consumption of fruits and vegetables, high cost of nutritious food, poor food processing procedures.

Some of the interventions that have been carried out include nutrient supplementation, diet diversification, commercial fortification, nutritional education and agricultural interventions. Despite these interventions, the prevalence of micro-nutrient deficiency is still relatively high particularly among children and women of reproductive age.

Vitamin A and iron are most important micro-nutrient in global public health terms; their lack represents a major threat to the health and development of populations, particularly children and pregnant women in low-income countries.
Iron

Iron deficiency anaemia is the most common and widespread nutritional disorder in the world. It is a condition in which the number and size of red blood cells, or the haemoglobin concentration, falls below an established cut-off value, consequently impairing the capacity of the blood to transport oxygen around the body. It is an indicator of both poor nutrition and poor health.

Iron deficiency anaemia is aggravated by malaria, HIV, worm infection and other infectious diseases. The major health consequences include poor pregnancy outcomes, impaired physical and cognitive development, increased risk of morbidity in children and reduced work productivity in adults. The World Health Assembly targets a 50 percent reduction of anaemia in women of reproductive age by 2025. Sixty-eight percent of children age 6-59 months in Nigeria are anaemic while about sixty percent of women age 15-49 years are anaemic.

In the northern parts of Nigeria, 48 percent of girls are married by the age of 15 as a result, they become teenager mothers. Pregnant adolescents are particularly vulnerable to anaemia because they have dual iron requirements, for their own growth and the growth of the fetus, they are less likely to access antenatal care. To prevent anaemia, pregnant women are advised to take iron folate supplements, eat iron-rich foods, and prevent intestinal worms.

Iron myth

Women need more iron than men. "False"
Adolescent boys need more iron because of their rapid growth and increase in blood volume. Around the age of 19, when growth slows, a female's iron needs is almost double that of males. When females are having their periods (menstruating), dietary iron needs increase because iron is lost in their menstrual blood. Around 1 mg of iron is lost for every day of bleeding.

Iron deficiency anaemia is the most common and widespread nutritional disorder in the world.

Vitamin A

Vitamin A deficiency (VAD) is the leading cause of preventable blindness in children and increases the risk of childhood diseases such as diarrhoea and measles and eventually death from severe infections.

In pregnant women, VAD causes night blindness and may increase the risk of maternal mortality. The solution for correcting vitamin A deficiency lies in improving the child's diet – through increased consumption of vitamin A-rich foods, naturally rich or commercially fortified foods such as processed oils or sugar. Vitamin A supplementation is recommended in infants and children 6-59 months of age as a public health intervention, and has been shown to reduce the risk of all-causes of mortality by 24 percent.

Vitamin A supplementation has been incorporated into the current immunisation schedule in Nigeria by the National Programme on Immunization (NPI), with two doses being given, 6 months apart, during infancy. Vitamin A supplements are also given during some of the National Immunisation Days (NIDs), with the aim of further increasing the coverage of supplementation. These interventions are expected to bring about a reduction in the prevalence of VAD among Nigerian children.
Salt intake of less than 5 grams per day for adults helps to reduce blood pressure and risk of cardiovascular disease, stroke and coronary heart attack. (WHO)

DID YOU KNOW?

Zinc plays a vital role in the functioning of the nervous, reproductive and immune systems and is important in the physical growth and cognitive development of children.

Numerous health problems such as retarded growth, skeletal abnormalities, delayed wound healing, increased abortion risk and diarrhoea may occur due to Zinc deficiency.

Diarrhoea is a leading cause of malnutrition in children under five years old. Diarrhoea contributes to nutritional deficiencies, reduced resistance to infections and impaired growth and development⁹. The prevalence of childhood diarrhoea in Nigeria is 18.8 percent and it accounts for 16 percent of deaths of children under 5 annually¹⁰.

Zinc is important for cellular growth, cellular differentiation and metabolism and deficiency limits childhood growth and decreases resistance to infections. Zinc supplementation has been shown to reduce the duration and severity of diarrhoea, and to prevent subsequent episodes.

Zinc restores mucosal barrier integrity and enterocyte brush-border enzyme activity, it promotes the production of antibodies and circulating lymphocytes against intestinal pathogens thereby reducing duration and severity of diarrhoea. The World Health Organisation recommends supplementation for children experiencing diarrhoea 10 to 20 mg of zinc per day with ORS.

1 WHO www.who.int/elena/titles/zinc_diarrhoea/en
2 http://www.unicef.org/where-we-work

Society for Family Health’s Contribution to Nutrition in Nigeria

As a response to some of the challenges associated with nutritional deficiencies, Society for Family Health (SFH) has carried out nutrition sensitive projects across various States in Nigeria, especially the North.

### Expanded Social Marketing Project in Nigeria (ESMPIN)

In line with one of ESMPIN’s objective of promoting local manufacture of key health products, SFH through the ESMPIN project in 2013 partnered with CHI Pharmaceuticals Limited to pioneer and launch the first locally manufactured Zinc Sulphate Tablet and Low Osmolar Oral Rehydration Salts (ORS). ORS and Zinc tablets are the appropriate treatment regimen for diarrhoea diseases – a leading cause of under 5 deaths in Nigeria. SFH through its existing nationwide distribution network continued to facilitate improved access to essential life-saving commodities in the rural and hard to reach areas.

SFH distributed 809,490 packets of co-packed ORS and Zinc preparation across 36 states including FCT. As part of the diarrhoea prevention activities, the project interventions treated a total of 2,073,136,500 liters of water. The intervention contributed to national indicator like knowledge of ORS among caregivers improved from 66 percent in 2008 to 80 percent in 2013. The proportion of caregivers who knew that ORS and Zinc are effective means of treating diarrhea among children less than 5 years grew significantly from 31 percent at baseline to 73.13 percent at end line.

The Rapid Access Expansion (RAcE) Project

Society for Family Health (SFH) led the implementation of Rapid Access Expansion Project (RAcE) from 2013 - 2017 in Abia State in partnership with Abia State Ministry of Health through the Primary Health Care Development Agency (ABSPHCDA). The RAcE project increased coverage of diagnosis, treatment, and referral services for malaria, pneumonia, and diarrhoea disease in hard-to-reach areas in Abia State.

Working with Community Based Organisations (CBOs), Community Owned Resource Persons (CORPS) who are also community frontline workers, Health Facility Workers, and other community structures, SFH served an estimated population of 202,998 children through scaling-up and improving the existing MOH community case management of malaria and integrated community case management (iCCM) programs. A total of 16,638 cases of diarrhoea received both ORS/Zinc.

---

¹ WHO www.who.int/elena/titles/zinc_diarrhoea/en
² http://www.unicef.org/where-we-work
There is no doubt that the ongoing Covid-19 pandemic will have a long lasting effect on people’s nutrition and healthcare all around the world. The World health organization (WHO) implores everyone to protect themselves and others against Covid-19 infection and transmission by maintaining physical/social distancing, good hygiene and regular washing of hands. Added to these, there are other important things that can be done to maintain a healthy lifestyle in this era of the Covid-19 pandemic.

The body needs added energy and nutrients during and after an infection. Although, no particular type of food or dietary supplement can prevent the Covid-19 infection, however, keeping a healthy diet is a very important part of building and sustaining a strong immune system.

To maintain a healthy diet, Food and Agricultural organization (FAO) encourages everyone to;

- Eat a variety of foods within each food group and across all the food groups to ensure adequate intake of important nutrients
- Eat plenty of fruits and vegetables. Fresh fruits and vegetables provide lots of vitamins and minerals as well as fiber that we need for healthy diet
- Watch your intake of fats, sugar, and salt.
- Continue to practice good food hygiene. Because of COVID-19 pandemic, you might be more concerned about food safety; however, COVID-19 is a respiratory virus and is not a food-borne disease.
- Consume a diet rich in whole grains, nuts, and healthy fats such as in olive, sesame, peanut or other oils rich in unsaturated fatty acids.
- Drink water regularly and limit alcohol intake.

In addition to all these, there are other lifestyle factors that can contribute to maintaining wellbeing and healthy immune system such as; regular exercise, adequate sleep, less stress and not smoking.¹¹

**DID YOU KNOW?**

That eating healthy can help build your immune system and make you less susceptible to sicknesses and diseases?


---

The door to my office flew open and Lonpe threw herself on the floor as soon as she dashed in. I stood, obviously, surprised to see a frail looking young woman dashed herself against the door with so much force.

“Help me, I just gave birth” she cried out with the veins of her neck standing out so evidently. She obviously needed help as she looked skinny alongside with her small stature, she could almost pass for a girl.

“How old are you, young lady?” I asked in my local dialect.

“Doctor, seventeen sir” she managed to respond as she sat on the floor refusing to sit on the chair. I was shocked but I hid it well. I rose up from beside her and asked her to follow me.

I headed to the Records department and I requested for her case file; what I discovered sent cold chills down my spine as I noticed she had not only lied about her age, the age that stared at me from the pages of her file was unimaginable. She was only fifteen.

She had just been delivered of a low birth weight child which is not surprising.
as her body mass index indicated that she was underweight as well as anaemic. I felt pity for the young lady as I regarded her pitiable frame while she sat waiting for me with a bloodshot eye. She seemed to be having too much than she could handle.

“Where is her baby?” I inquired from one of the nurses on duty. She shook her head in pity before she answered. “The baby was so small and had passed through a lot of stress and complications. The baby died” the nurse explained. I actually saw that coming.

Lonpe needed as much help as she can get herself. I could imagine how the baby would have looked if the mother is looking this way. She looked severely malnourished and in need of a comprehensive medical attention, but I would not blame her as she is the 9th of 13 children in a polygamous family. I was sure she has to struggle for so many things, medical attention being the least where food, clothing and acceptance will stand as priority to her and none of which she has easy access to.

I observed the scanty and dirty clothes on her body, and I could imagine the kinds of infection the new-born would have battled with. Lonpe scarcely had enough to eat for herself not to mention the foetus growing in her womb. Her family would be grateful to get something to fill their tummy. They care less about the nutritional value. When she got pregnant, they would have given her the do’s and don’ts of her feeding not minding its effect on her health and the baby, to avoid spending the little resources they had. In their ignorance, they would have thought they were doing her a favour.

My heart bled for Lonpe. Lonpe and several millions of women in their reproductive age suffer from micronutrient deficiencies/hidden hunger in Nigeria. Malnutrition has been identified as a key underlying cause for maternal deaths in Nigeria. Malnutrition pre-disposes women, particularly pregnant and lactating women, to various forms of health conditions such as increased risk of infection, anaemia, visual impairment, goitre among others. These in turn lead to gestational and postnatal complications such as obstructed labour, gestational diabetes, hypertensive disorders, haemorrhage and in fatal cases, death.

Malnutrition also increases the risk of intra-uterine growth retardation (IUGR) and neural tube defect in the children born to these malnourished women. Environmental and economic conditions have huge impacts on the nutritional status of women in Nigeria; poverty in this population limits food choices, thus affecting their quality of diet and ultimately, nutrient absorption, myths about food consumption during pregnancy. Many at times women consume more of macro-nutrient and are forbidden to eat food high in micro-nutrients like fruits and vegetable.

Micro-nutrient malnutrition, also called hidden hunger, is the main form of malnutrition found among pregnant and lactating women in Nigeria, this coupled with under nutrition have severe implications on the well-being of these women.

Self-introspection…

• Do you think you are healthy?
• What are your eating habits like?
• What could you do to make healthier choices?
• What are your exercise habits like?

Fact

You needn’t eat a lot to put on weight.

True: It is possible to put on weight without eating large amounts of food! If you do not exercise regularly, your energy requirement is likely to be small and it is easy to obtain more energy than you expend, even with a small amount of food. This is known as positive energy balance. When you are in positive energy balance there will be a tendency for you to put on weight.

The best thing to do, therefore, is to be physically active and stay physically active for as long as you can throughout your life. You should also take a balanced approach to eating and include a wide variety of nutritious foods such as fruit, vegetables, low fat dairy products, lean meat, skinless poultry, fish, legumes, breads and cereals. Limit high fat foods.

DID YOU KNOW?

That it is absolutely true that we are what we eat!
*World Malaria Day*

**Theme: ‘Zero Malaria starts with Me’**

Society for Family Health joined the rest of the world to celebrate this year’s edition of the World Malaria Day (WMD). The World Malaria Day is celebrated annually on the 25th of April. The day is set apart to spread information on national malaria control strategies especially community-based activities in endemic areas and to emphasize the need for continued investment and sustained political commitment for malaria prevention and control. The WMD 2020 campaign theme ‘Zero Malaria starts with Me’ is a movement dedicated to drive action and make change, and this starts with the individual, You and Me.

SFH commemorated the day through a Twitter advocacy on Malaria using #ErnestTakeOver, #ZeroMalariaStartsWithMe #WorldMalariaDay2020. The advocacy took the form an engagement session which was facilitated by SFH’s GlobalFund Malaria Project Director (Dr Ernest Nwokolo @SfhErnest) via the official SFH Twitter handle, @SFHNigeria.

The session engaged the audience on the basics of malaria, global and national malaria statistics, SFH community-based malaria prevention/control efforts and the implications of the COVID-19 pandemic on health and surveillance systems for infectious diseases. At the end of the session, a total of 100 tweets were shared among 51 users with a total reach of 13,918 person and 13,172 impressions made.

[https://www.endmalaria.org/worldmalariaaday](https://www.endmalaria.org/worldmalariaaday)
*International Women’s Day*

**Theme:** ‘An equal world is an enabled world’.

**Society for Family Health** joined the rest of the world to celebrate International Women’s Day (IWD).

International women’s day is celebrated annually on the 8th March. The day is set apart to reflect on progress made, to call for change and to celebrate acts of courage and determination by ordinary women, who have played an extraordinary role in the history of their countries and communities.

The IWD 2020 campaign theme ‘An equal world is an enabled world’ draws on the notion of “collective individualism,” which refers to the idea that every individual is a part of a whole, and that an individual’s actions, behaviors, and mindsets can all have an impact on larger society.

We can all choose to be #EachforEqual. #Wearegenerationequality #Anequalworldisanenabledworld #Internationalwomensday2020
Buzz would love to hear your thoughts, questions and contributions, send us an email at buzz@sfhnigeria.org

Your comment or question might just be included in our next publication.

For partnership and sponsorship as well as information on our interventions, products and services, contact:

Dr. Jennifer Anyanti
Deputy Managing Director Programmes.
Society for Family Health
janyanti@sfhnigeria.org

#SFHYouth
http://www.sfhnigeria.org/youth-programming/