



Aliko Dangote
Foundation



Report

Building Immunity through Nutrition: A Larger Picture for Preventing COVID-19 Infections.

There is little doubt that the Coronavirus (COVID-19) pandemic is affecting every aspect of our lives—from virtual classrooms to domestic violence, outright quarantines, and so on. Observing public health measures and reducing exposure to the virus are required to slow the spread of this disease. No one knows how long these safety measures will need to stay in place, but it presents a perfect time to protect and improve our health while practicing social distancing. The World Health Organization (WHO) has declared the Coronavirus Disease (COVID-19) a global pandemic, hence, it has become pertinent that new strategies and coping mechanisms evolve to address the drastic change at all levels.

Against this back drop, Ovie Brume Foundation in partnership with Youth Empowerment Foundation and Aliko Dangote Foundation held a webinar titled “**Building Immunity through Nutrition as a strategy to combat the COVID-19 pandemic**’ on 6th May 2020. The session was moderated by Adeola Awogbemi, Executive Director, Ovie Brume Foundation, and the speakers were Dr. Francis Aminu, Director of Health & Nutrition, Aliko Dangote Foundation, and Iwalola Akin-Jimoh, Executive Secretary, Youth Empowerment Foundation who are Nutrition Specialists. 96 people participated in the virtual class. Adeola Awogbemi welcomed participants and shared the objective of the webinar. This was followed by the introduction of the first speaker, Dr. Francis Aminu.

Dr. Aminu’s presentation focused and explored how nutrition can contribute to flattening the curve on COVID-19, the role and food sources of nutrients in boosting the immune system, safeguarding the health and nutrition security of the population and sustainable ways of maintaining continuity of ongoing nutrition programming and actions across sectors. While Mrs. Iwalola Akin-Jimoh’s presentation focused more specifically on what we need to do at the household level to strengthen immunity and promote positive nutrition actions and how to specifically use Nutrition to treat mild symptoms of COVID 19.

Key Highlights of Dr. Francis Aminu’s Presentation

1. Aliko Dangote Foundation has had a strategic focus and role in supporting the Nigerian government in flattening the COVID-19 curve and providing palliative support for people.
2. The Coronavirus will be around for sometime but could change its virulence, become less deadly and be wiped out. Hence, the Nigerian government urgently needs to put in place, a National Plan and Strategy to respond to the pandemic.

3. The alarming spread of the virus across 95% of states in Nigeria indicates that there is need for strict adherence to guidelines and instructions by the Nigeria Centre for Diseases Control (NCDC) and World Health Organization (WHO).
4. Easing the lockdown across the nation demands responsibility by every citizens to ensure 100% safety of all.
5. COVID-19 is not a death sentence. In comparison to other deadly viruses that have affected humanity in the past, the death rate of people who contracted COVID-19 is significantly low. Reports show that of confirmed cases reported in Nigeria as of 5th May 2020, only 3% of the confirmed cases suffered fatalities. In his words, " Though *1 death is far too much, the numbers of recovered patients have been encouraging*".
6. The category of people at high risk of suffering severe COVID-19 illnesses are malnourished individuals and those with existing underlining conditions such as Cardiovascular disease and Diabetes and Kidney conditions. These individuals are endangered because their immune system is already comprised thus increasing susceptibility to the infection.
7. The good news is that the major cure for COVID-19 is the immune system hence good nutrition is key to building immunity, protect against illness, infection, and support recovery. Higher intake of specific nutrients will boost the immune system which is very vital for the body to combat the virus.
8. Certain immune cells produce a concentrated burst of reactive oxygen species (ROS), damaging substances that help kill invading organisms. These are aided by important nutrients such as Vitamins A, B, C, D E, Iron, Zinc, Copper, Selenium and so on. These nutrients can be found in foods such as oysters, beef, yoghurt, tuna, lentils, cashew nuts, pork, and wheat bread.
9. Lack of and limited access to nutritious foods leads to malnutrition. Malnutrition increases susceptibility to infections while infections aggravate malnutrition by, decreasing appetite, inducing catabolism, and increasing demand for nutrients. Poverty can therefore be linked to malnutrition, which leads to low immunity, increased susceptibility to infections which eventually causes mortality.
10. Beyond COVID-19, an adaptive policy approach is needed to strengthen the health systems preparedness and response in Nigeria. The Aliko Dangote Foundation has invested in building sustainable health-care systems through the revitalization of Primary Health Care Centres and the Integration of nutrition-specific and sensitive interventions such as the Integrated Nutrition (ADFIN) Programme.
11. An integrated solution to the fight against COVID-19, adhering to guidelines, national testing programs, improved and adequate nutrition will aid Nigeria's fight in flattening the curve.

Key Highlights of Mrs. Iwalola Akin-Jimo's Presentation

1. Youth Empowerment Foundation has been empowering young people through programming and mobilization interventions and providing paliatives through strategic partnerships.
2. Coronavirus cannot be transmitted from pregnant women to the foetus during delivery and from nursing/infected mothers through breast milk. The benefits of breastfeeding far outweighs physical/social distancing recommended for curtailing the spread of the Coronavirus.
3. Exclusive Breastfeeding for the first 6 months is very important to curb COVID19- in babies as it is the foundation for strong immunity. However, it is equally important for nursing mothers to observe

all safety and recommended precautions. Not just the nursing mother but EVERYONE needs to take these precautionary measures.

4. Complementary feeding which entails appropriate quality, frequency, diversity and quantity after the first six months of life with continued breastfeeding and fortified foods is necessary for children for up to 2 years and beyond to strengthen their immune system.
5. Nutritional care of sick and malnourished children is key to their recovery process; the Community-based Management of Acute Malnutrition (CMAM) for treatment of moderate and severe acute malnutrition is therefore recommended to combat this. This entails the use of Kangaroo mother care for low-birth weight infants, feeding sick children more during and after illness, provision of vitamin A, treatment of diarrhea with ORS and Zinc supplements.
6. Nutrition and diet management of COVID-19 patients should be specific with the following criteria such as age, group, existing physiological conditions, and progression of the disease.
7. Nutrition-specific interventions are needed for pregnant women in isolation centers; this is important to the overall health and welfare of mother and unborn child.
8. A strong immune system should always be a priority in homes. Despite the lockdowns or financial constraints, families can still have a healthy diet by eating at home where food safety is assured to ensure vitamins and nutrients which boost the immune system.
9. Proper sanitization of homes will reduce transmission of COVID-19 especially among the elderly people who are at high risk.
10. The principles of WASH is in sync with ensuring adequate nutrition; hence, access to and promotion of safe drinking water in the home is important. Hand washing is crucial in reducing the spread and combating several infections but is essential after defecation, after cleaning a child who has defecated, before preparing food, before feeding a child and before eating.
11. The proper and safe disposal of human waste, safe storage and handling of food, use of latrines at the household level are hygiene practices that will keep illnesses away from the home. Open defecation should be discouraged, and barriers should be created between toddlers and soiled environment.
12. Illnesses and malnutrition are concurrent partners as illnesses causes loss of appetite, which can lead to malnutrition and can increases an individual's susceptibility to infections and disease.
13. Prevention and control of anemia among women and children is important and can be achieved within the household by increasing iron rich diets.
14. According to recent research published in British Medical Journal, pregnant frontline workers from 28 weeks and above, are advised to stay home due to the fact that pregnancy exerts its own pressure on the immune system, cardiovascular system and the respiratory system.
15. General tips for a healthy diet at household level include:
 - Eat a varied diet within and across all food groups.
 - Eat a lot of fruits and vegetables for vitamins.
 - Consume whole grains, nuts, and healthy fats.
 - Watch your intake of fats, sugar, and salt.
 - Continue to practice good food hygiene.
 - Drink water regularly and hydrate.

- Limit consumption of alcohol.
 - Observe tips for healthy lifestyles.
16. A lot of responsibility lies in the hands of adults and women in particular because they are primary determinants of household nutrition. It is their responsibility to ensure that the family eat nutritious meals based on age requirements. Also, men need to support women in their lives (sisters, mothers) to get empowered in the area of nutrition.

The speakers thereafter took turns to respond to questions from the audience and below are the feedback.

Q: Current evidence highlight that diet has a profound effect on immune system and susceptibility. It is wrong to attribute death due to COVID 19 to lack of adequate nutrition?

A: Theoretically, causes of death could be ascertained using socio-economic and socio demographic characteristics. The Nigerian Centre for Disease Control (NCDC) only provides age and gender of dead patients, more details will help know other contributors to the death. However, malnutrition is responsible for 50% of all deaths in children. It has been found out that diets of people are responsible for cardiovascular disease.

Q: In the UK, 60% of frontline workers who died from corona virus are from Black and Asian race. Could this be linked to the poor sunlight and lack of Vitamin D which affects our immune response?

A: There are lots of supplements (particularly calcium) that don't have Vitamin D attached. For Frontline workers, it is essential for them to consume Super foods such as sardine and mackerel based on their high supply of Vitamin D. Vitamin D is highly essential for proper immune function. However, several factors could contribute to the statistics of this set of people dying, there could be underlining illnesses and the kind of environment they live in. At the moment, there is no data and research backing this finding, we would have to be cautious of making generalized statements.

Q: Please give examples of food and fruits that can be eaten during this period; essentially in terms of calorie, macronutrients and micronutrients for under 5's?

A: Super foods are the most essential for consumption during these times. Citrus fruits like oranges, grapefruits, lemon, lime are good and rich in vitamin C. Berries are very important as they contain vitamin C, which inhibits successful virus division; it blocks the attachment of the virus to the lungs. Though most children might not like to consume some of these foods such as green peppers, cucumber, broccoli due to the taste, we have to ensure that we train our children in healthy eating. Likewise, we need to ensure that the foods we provide at home have a good proportion of vegetables with other classes of food consumed.

Q: Since we are trying to tackle Malnutrition in Covid-19 patients, how do registered Dietitians and Nutritionists gain more strength and recognition in patient management from the community to the hospital level?

A: Advocacy to the NCDC, who have the mandate for incidence management in Nigeria. Nutritionists and Dieticians need to be more engaged in management of patients who have various forms of illness which will require different diets and nutritional support for recovery process.

Q: In light of nutrition and hygiene, how do we handle fruits bought from supermarkets and street vendors before eating them?

A: When buying fruits and vegetables through these sources, pick from the back incase others have picked it and put back. Also, when buying vegetables, buy in the morning if possible, leave it in the sun (personal opinion) for some hours, then wash it in salt and water. Likewise, for fruits, wash with mild soap and water then leave in the sun on a dry clean surface. It is best fruits are also eaten within a short time rather after being refrigerated. This advice goes beyond COVID-19, it should be a normal way of life.

Mr. Akin Jimoh, a Development Communications specialist in his contributions, encouraged participants particularly journalists, and the organizations, to ensure that the learning and key takeaways from this educative session is shared widely to the public. He added that the psychological and psychiatric responses to COVID-19 are important issues to be looked at and integrated into the response. Nutrition and exercise need to be looked at as a personal responsibility rather than the government's responsibility, even though governments have an overarching responsibility to ensure that citizens are adequately informed..

The sessions came to a close and Adeola Awogbemi reiterated the work of Ovie Brume Foundation in creating an enabling environment for young people and ensuring that all youth are educated, empowered and self reliant. She also thanked the webinar co-hosts and audience for their time before ending the session.