

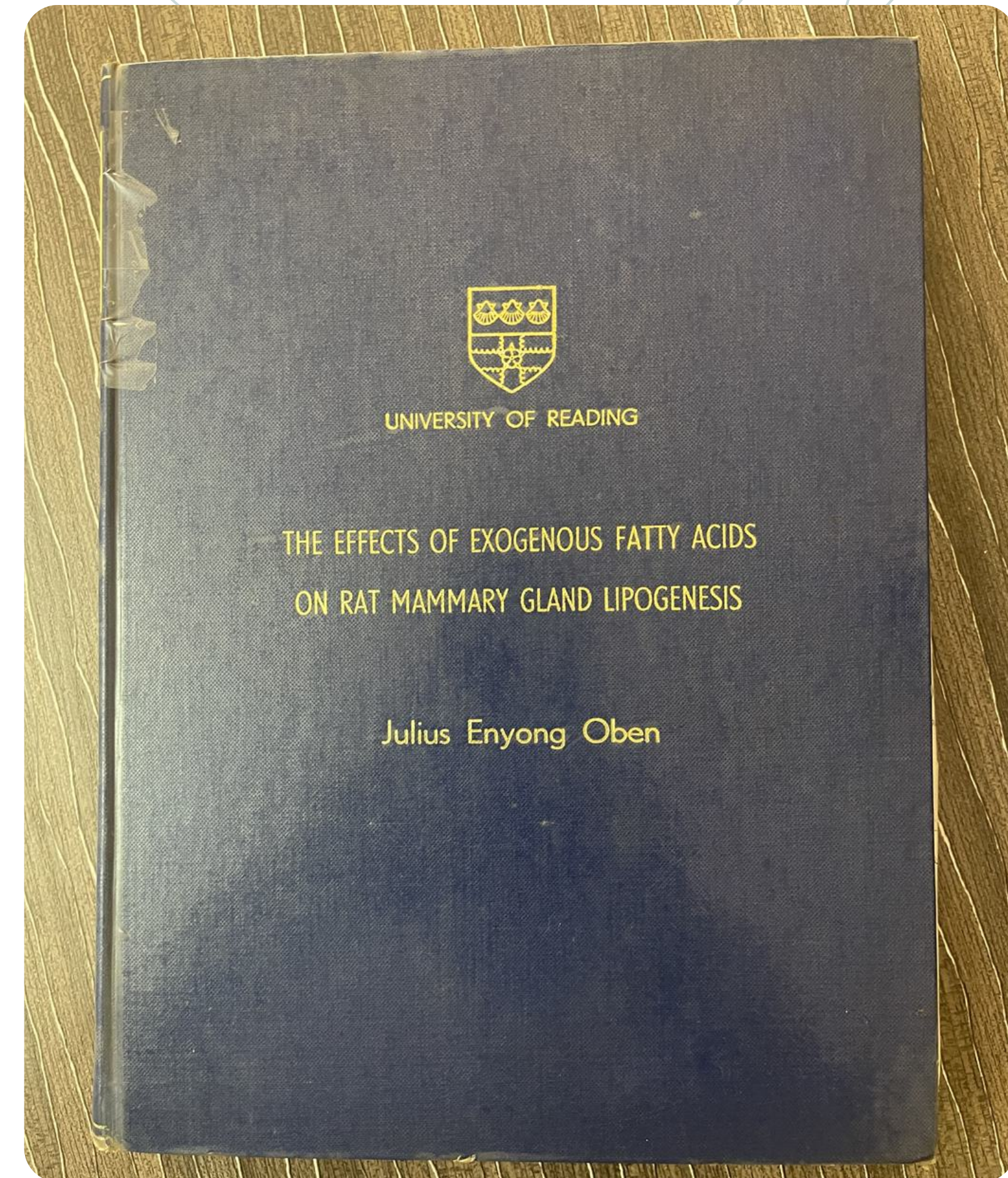
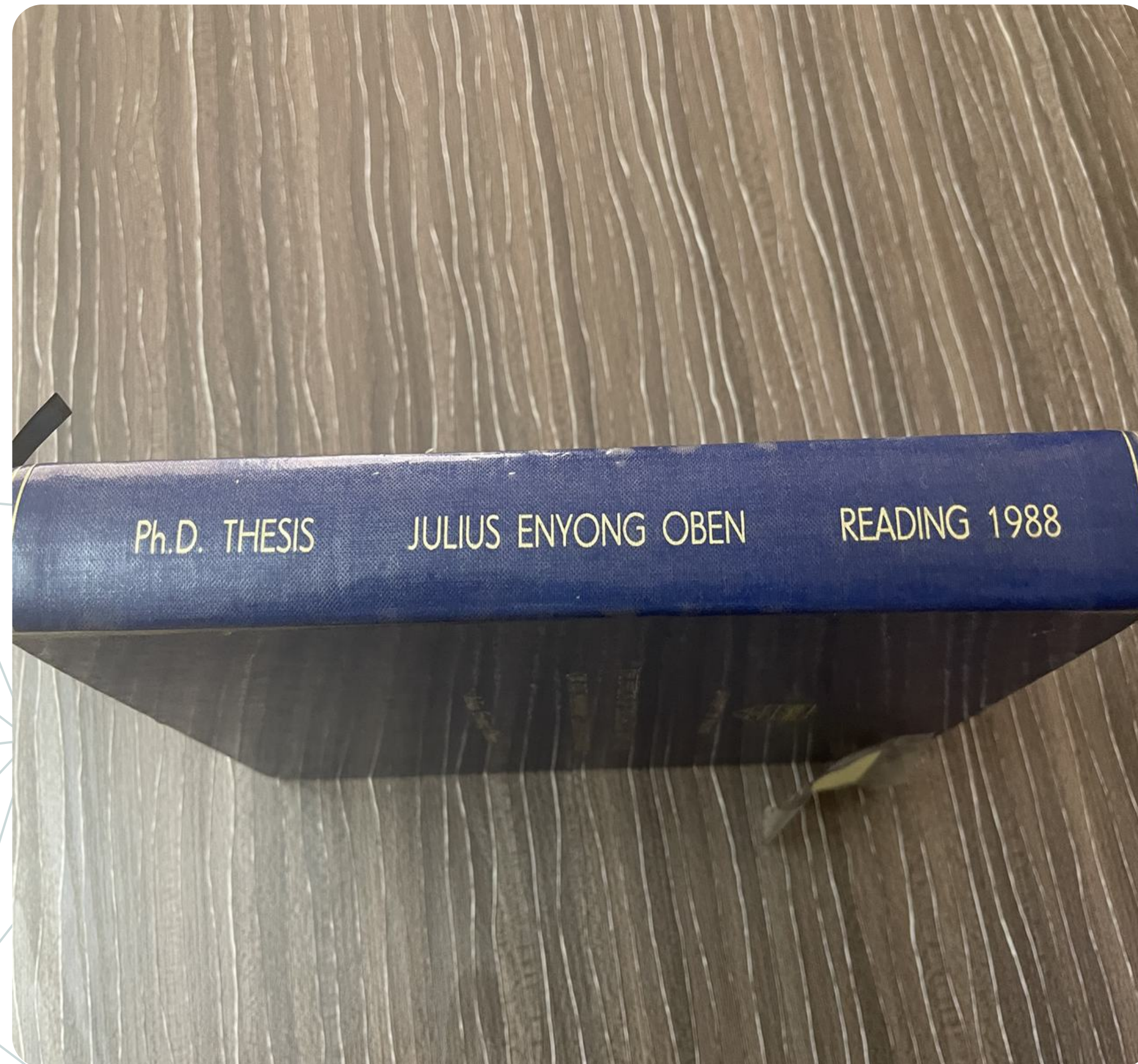
CAMEROONIAN FOODS AS MEDICINE:

Lessons for the Food Industry

**Julius
Oben**

Professor, University of Yaounde,
Co-Founder of the J&A Oben Foundation
Yaounde - Cameroon





1989

Effect of GLP-1 (gut hormone) on Lipid Metabolism in Human Adipocytes (GLP-1 from whole gut)

2022 TO

Effect of Irvingia gabonensis, Cissus quadrangularis and Dichrostachys glomerata on **gut microbiome** related metabolic processes

PATENTS BY INVENTOR JULIUS OBEN (17)

Julius Oben has filed for patents to protect the following inventions. This listing includes patent applications that are pending as well as patents that have already been granted by the United States Patent and Trademark Office (USPTO).

Methods and related compositions for reducing oxidative stress

Publication number: 20230293613

Abstract: Oxidative stress is implicated in neurodegenerative diseases such as Alzheimer's disease, and has been extensively studied as a potential target for therapeutic intervention. The present disclosure discloses a method for reducing free radicals in a mammal, the method comprises administering a composition containing an effective amount of Baillonella toxisperma extract to a mammal to reduce free radicals in the mammal.

Type: Application

Filed: May 24, 2023

Publication date: September 21, 2023

Inventor: Julius Oben

Method and composition using irvingia gabonensis for reducing body weight

Publication number: 20090226553

Abstract: Methods and compositions using plants from the Irvingiaceae family to reduce body weight in a mammal. Methods and compositions using the Irvingia gabonensis plant to reduce lipid levels, BMI and body weight, blood pressure, triglyceride levels, total amount of fat stored in the body, cholesterol levels, salivary and pancreatic alpha-amylase activity and pancreatic lipase activity, LDL cholesterol, to increase HDL cholesterol, to control blood glucose and to prevent or reduce the effects of insulin resistance, diabetes, and heart disease.

Type: Application

Filed: May 22, 2009

Publication date: September 10, 2009

Applicant: GATEWAY HEALTH ALLIANCES, INC.

Inventor: Julius Oben

Method and composition using irvingia gabonensis for reducing body weight

Publication number: 20090227514

Abstract: Methods and compositions using plants from the Irvingiaceae family to reduce body weight in a mammal.

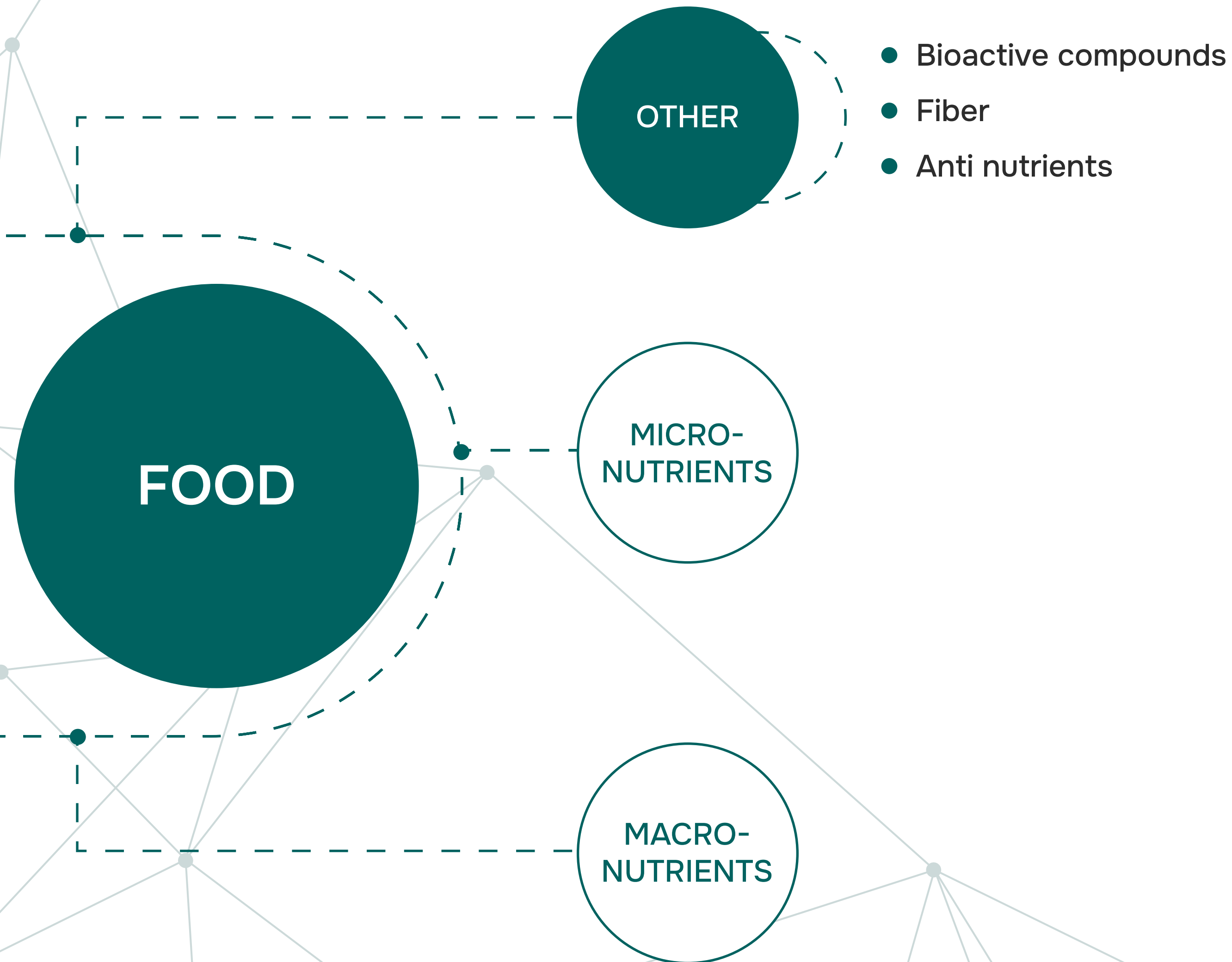
FOOD AT THE CENTER OF UN SUSTAINABLE DEVELOPMENT GOAL 3

Good health concerns the care of the human body and everything that can be done to protect it from sickness and intoxication and enable access to care.

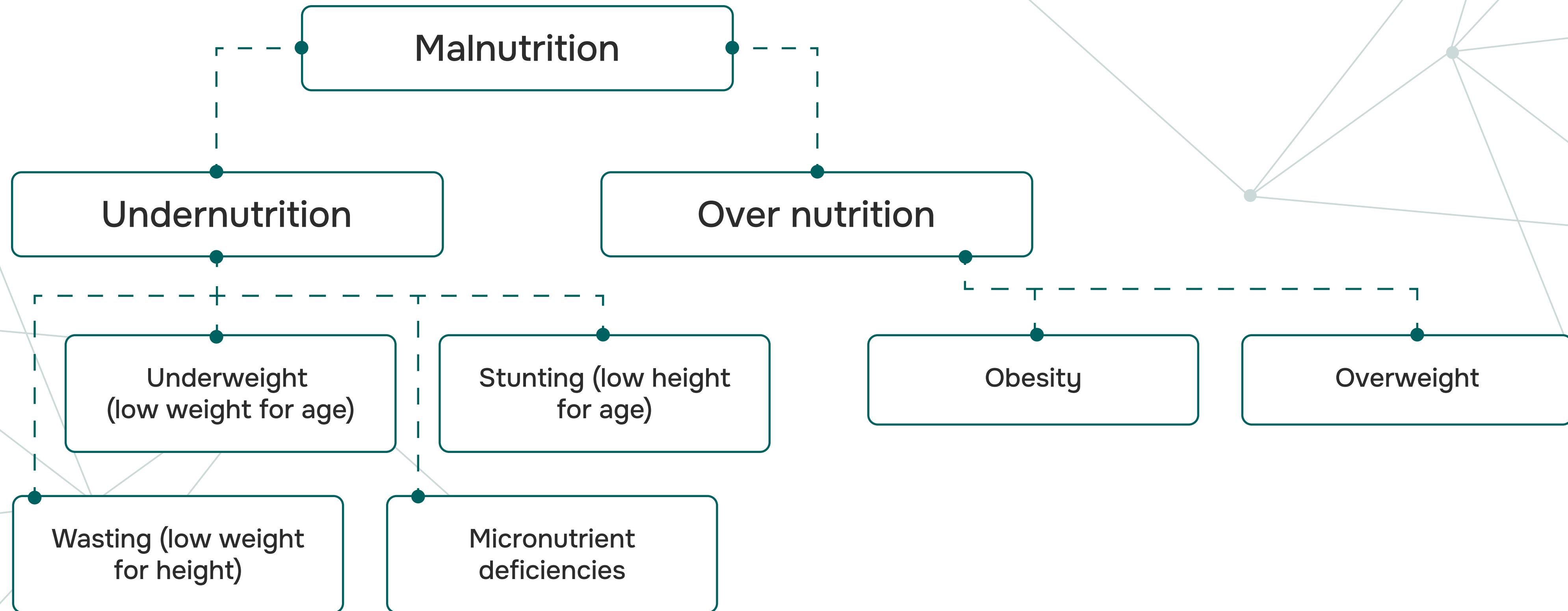
3 GOOD HEALTH AND WELL-BEING

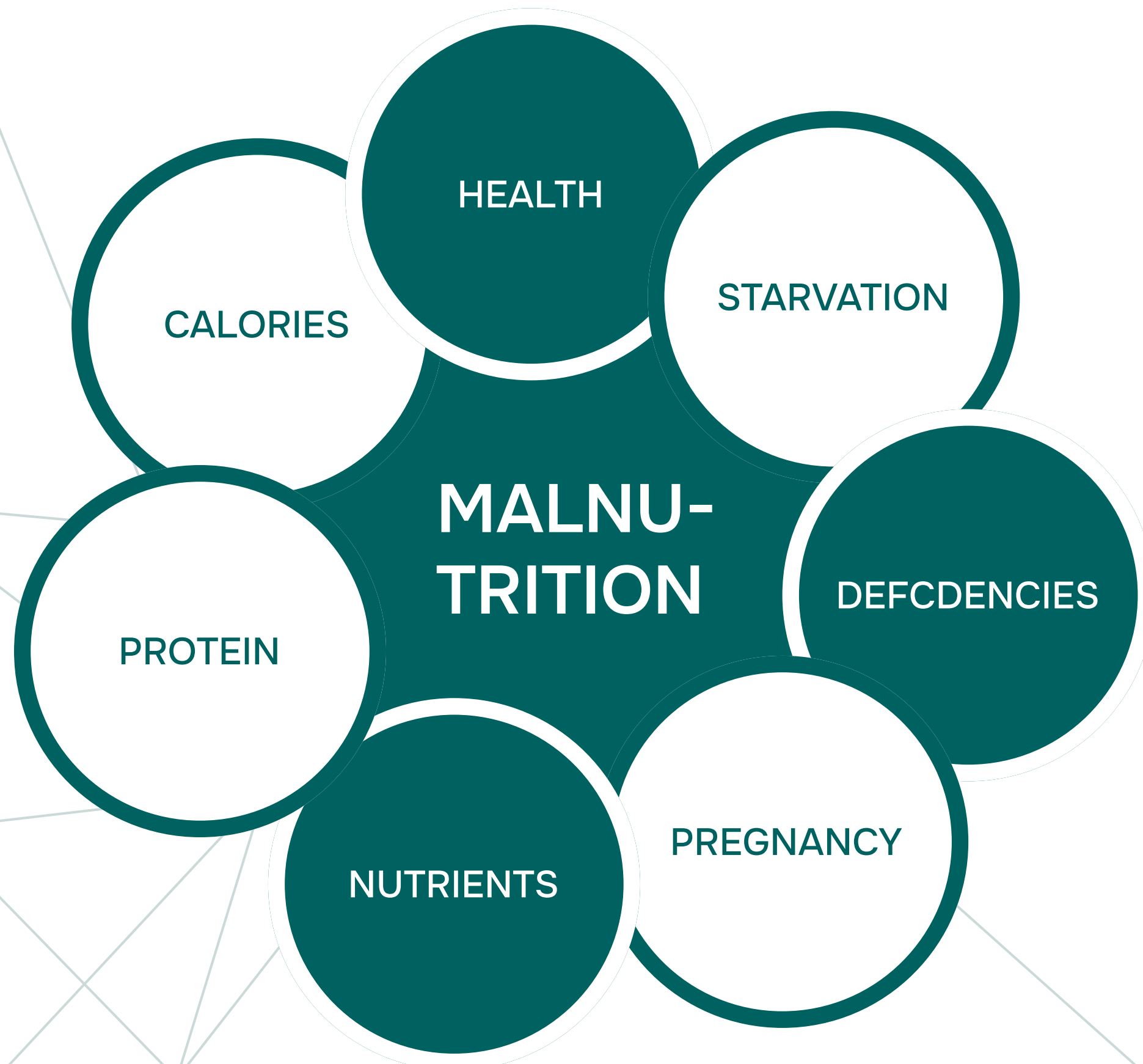


HOW THE HUMAN BODY SEES FOOD



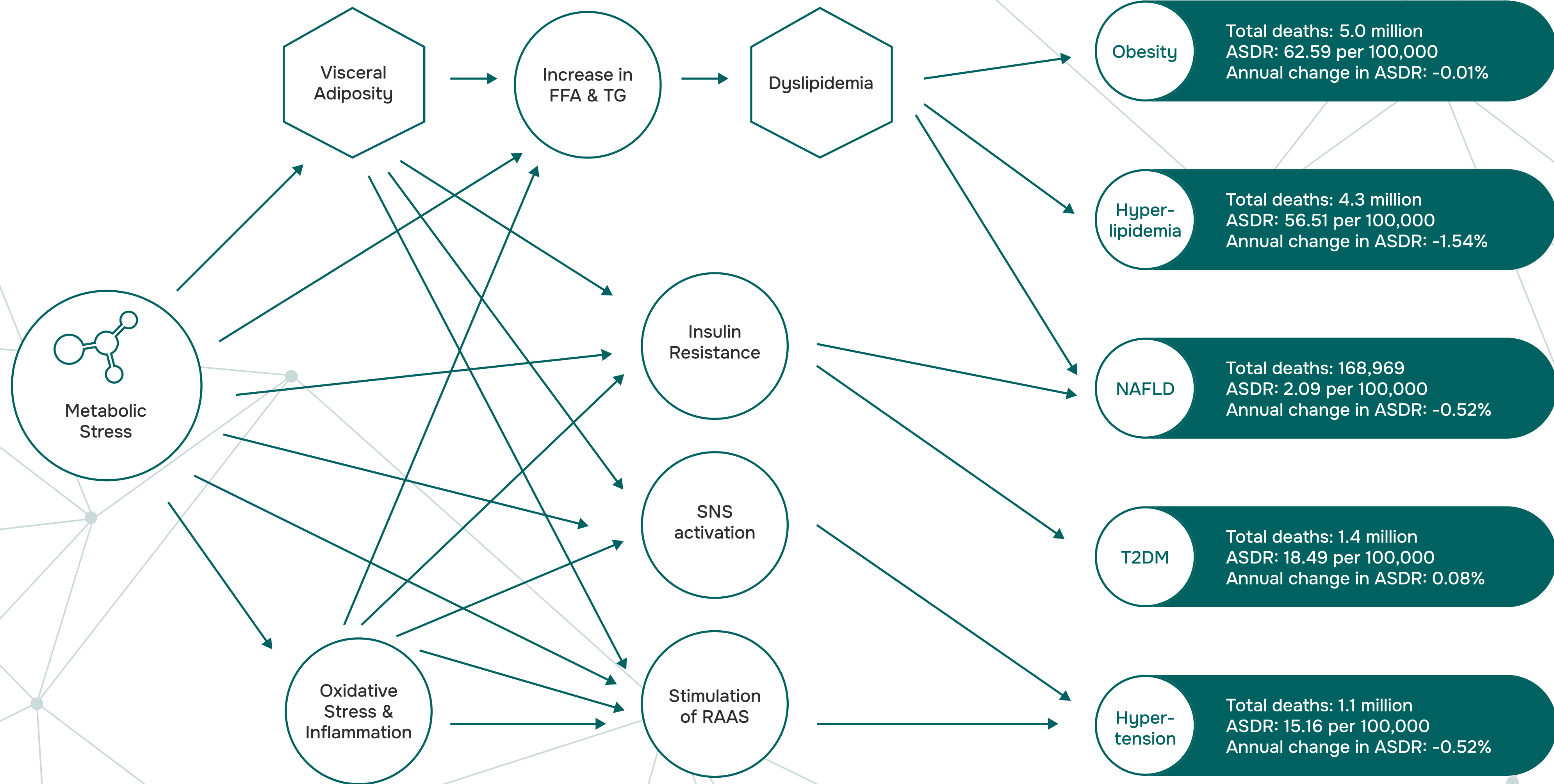
MALNUTRITION





Glucose utilization
Ketogenic condition Hyperlactatemia Hypertension
Hypercalcemia/hypocalcemia Glycogen storage disease Acute ischemia
Inborn errors of metabolism Diabetic nephropathy 2-Hydroxyglutaric acidurias
Galactosemia Respiratory acidosis/alkalosis
Obesity Lipodystrophy Mody **Diabetes mellitus**
Hyperparathyroidism Adiponectin Metabolic brain diseases Maple syrup urine disease
Uremic toxins AMPK **Atherosclerosis** Niemann-Pick disease **CKD**
Heart failure **CVD** **Metabolic syndrome** Hyperglycemia Gut microbiota
Liver disease Metabolic alkalosis/acidosis HIF-1 eGFR NRF-1 Pancreatic β -cells
OATP Hyperphagia **Hepatocellular carcinoma**
NASH Oxidative stress TNF α Glutaric acidemia Leptin Hyperlipidemia
Lactose malabsorption Cachexia **NAFLD** Steatosis
IL-6 Hyper/hypokalemia G6PD deficiency Hepatitis
Cirrhosis Insulin regulation Hemochromatosis

METABOLIC DISEASES : PREVALENCE



Why do some populations stay slim when others are getting fat?

Food

Physical Activity



Irvingia

Extract (IGOB131)

Whole grain



Safety/ Clinical Trials / Patent

Market

Especially Repeat Sales





CISSUS QUADRANGULARIS

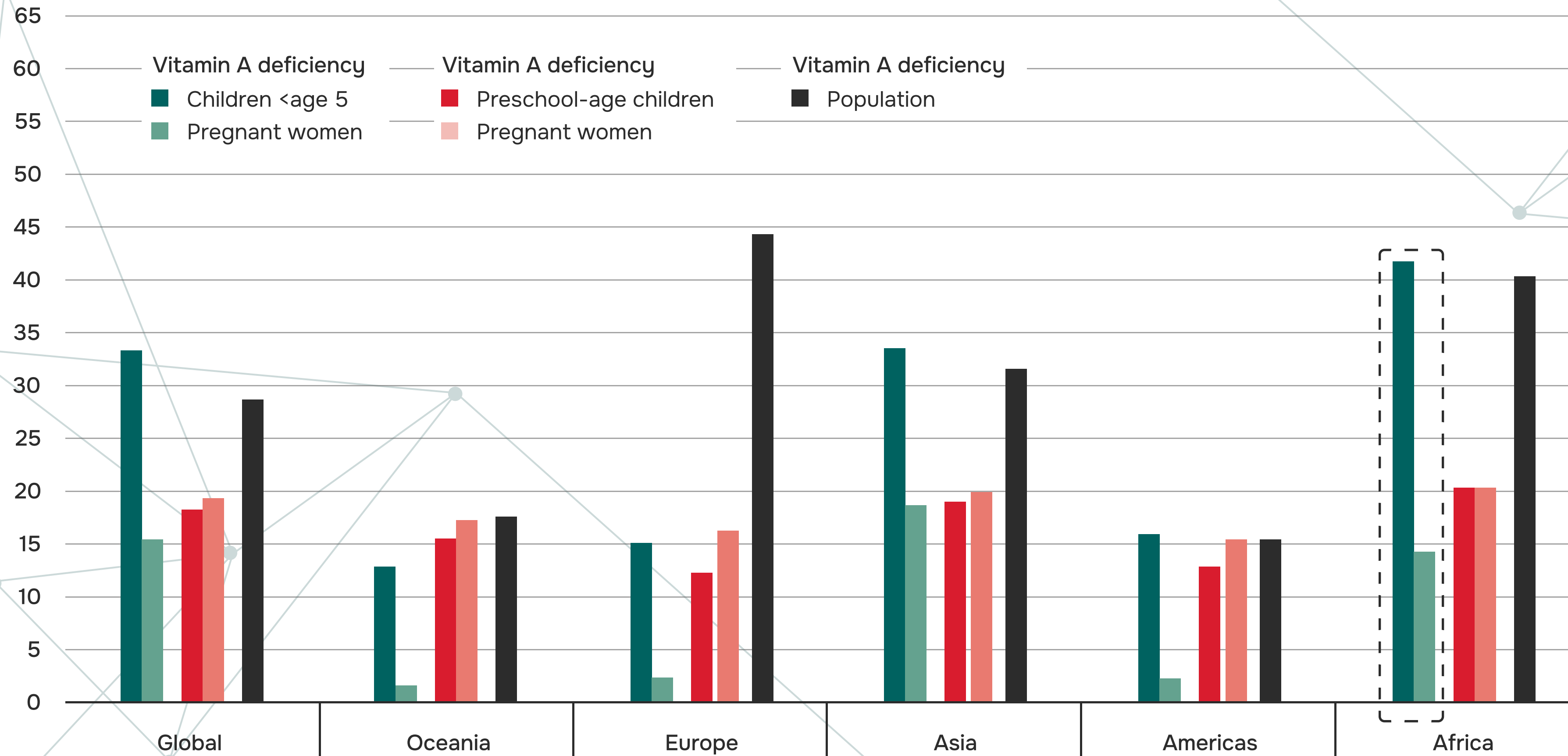
(cqr-300) resistant/ thirst & hunger quencher



DICHROSTACHYS GLOMERATA

(dyglomera™) – satiety / increase metabolism /
glp-1 modulator

HIDDEN HUNGER IN THE WORLD



IRON

~ 1.6 billion

ZINC

~ 1.2 billion

IODINE

~ 1.8 billion

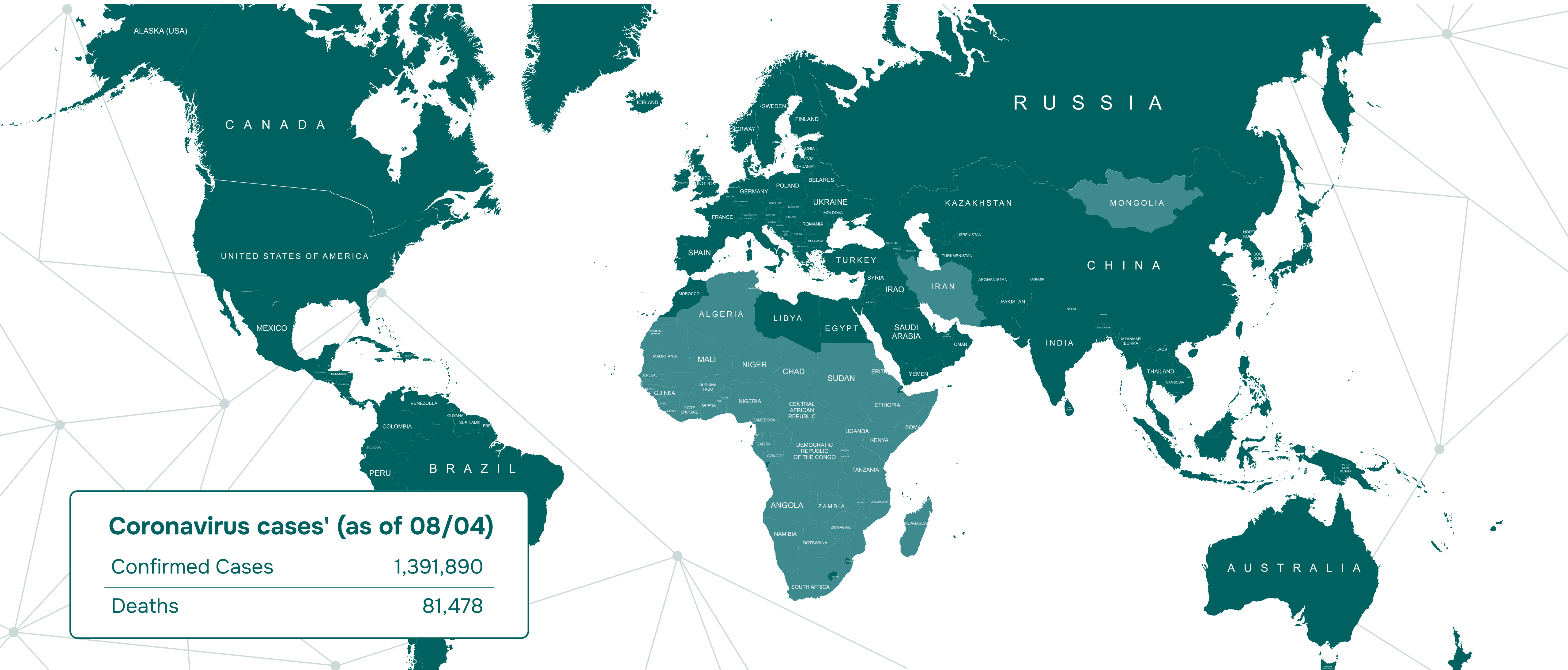
VITAMIN A

~ 190 million Pre-school age children

~ 19 million Pregnant women

HOW DID SUB-SAHARAN AFRICA MISS OUT ON THIS?

Emergency Response Coordination Centre (ERCC) | DG ECHO Daily Map | 08/08/2020 | COVID-19 pandemic worldwide



'STAR YELLOW' SOUP

in the fight against Covid-19 transmission – Africa's solution was effective because of our food (medicine)



Research question: How to curb the spread of COVID-19 via feces?



Proposed solution: Star Yellow (Yellow soup rich in zinc, and antiviral and antibacterial bioactives)



Methods: Formulation of Star Yellow by adding *C. mannii* and *A. sativum*; testing its acceptability by sensory evaluation




Result: Acceptability of 77.4 % for Star Yellow compared to 54.8 % for standard Yellow soup



Conclusion: Star Yellow could be a potential agent in the control of SARS-CoV-2 virus transmission via feces

Functional Foods in Health and Disease 2020; 10(8):324-329 www.FFHJD.com Page 324 of 329

Research Article Open Access



FFHD
Functional Foods in Health and Disease

The acceptability of 'Star Yellow,' a Cameroonian functional food that could curb the spread of the COVID-19 via feces

Julius Oben^{1*}, Jude Bigoga^{1,2}, Guy Takuissu¹, Ismael Teta³ and Rose Leke²

Randomized Controlled Trial > Lipids Health Dis. 2005 May 25:4:12.
doi: 10.1186/1476-511X-4-12.

The effect of Irvingia gabonensis seeds on body weight and blood lipids of obese subjects in Cameroon

Judith L Ngondi¹, Julius E Oben, Samuel R Minka

Affiliations + expand
PMID: 15916709 PMCID: PMC1168905 DOI: 10.1186/1476-511X-4-12

doi: 10.1097/HNP.0b013e318222735a.

African mango (IGOB131): a proprietary seed extract of Irvingia gabonensis is found to be effective in reducing body weight and improving metabolic parameters in overweight humans

Stephanie Maxine Ross¹

Affiliations + expand
PMID: 21697664 DOI: 10.1097/HNP.0b013e318222735a

HERBALS AND NUTRITIONAL SUPPLEMENTS

African Mango (IGOB131)

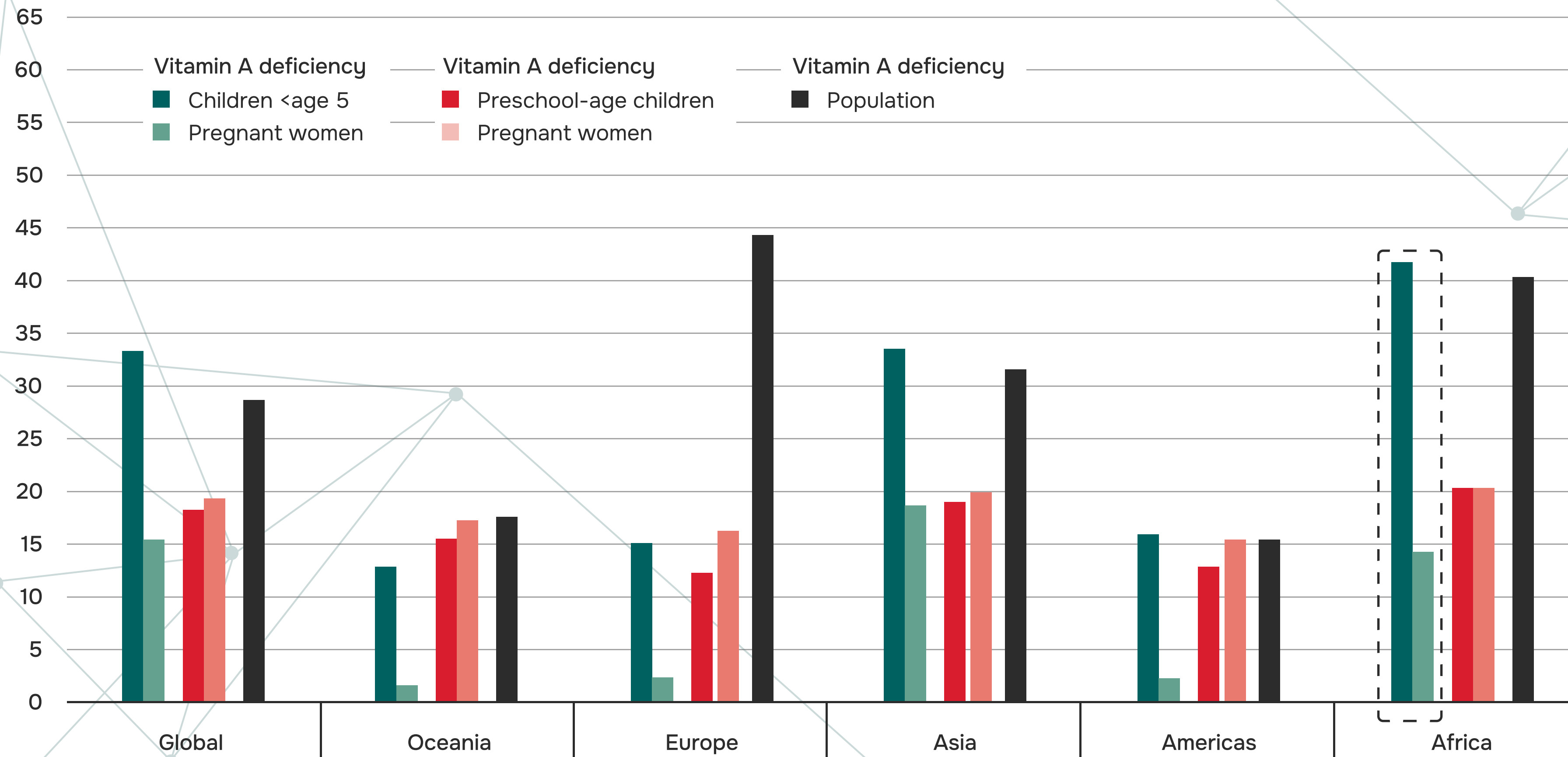
A Proprietary Seed Extract of *Irvingia gabonensis* is Found to Be Effective in Reducing Body Weight and Improving Metabolic Parameters in Overweight Humans

Ross, Stephanie Maxine MH, HT, CNC

Author Information

Holistic Nursing Practice 25(4):p 215-217, July/August 2011. | DOI: 10.1097/HNP.0b013e318222735a

HIDDEN HUNGER IN THE WORLD



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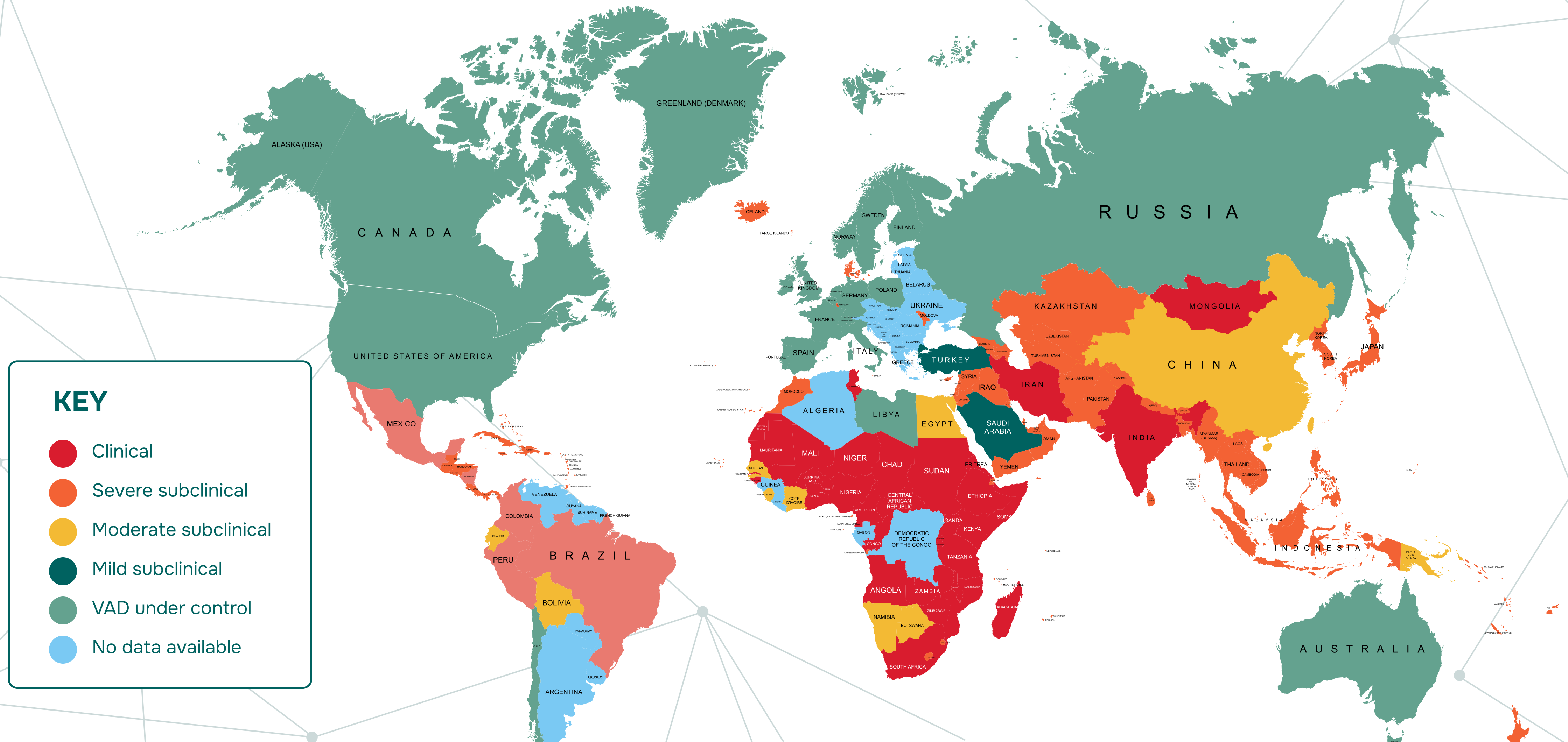
ZINC
~ 1.2 billion

IODINE
~ 1.8 billion

VITAMIN A
~ 190 million Pre-school age children
~ 19 million Pregnant women

VITAMIN A DEFICIENCY MAP

Not much has changed in 30 years – Cameroonian (African) solution needed



CAMEROON GOVERNMENT'S ACTIONS TO MANAGE VITAMIN A DEFICIENCY

In Cameroon, the government, through the Ministry of Public Health, with the support of **UNICEF** and **HKI**, is combating vitamin A deficiency by using **Vitamin A capsules** to supplement children aged 6-59 months every 6 months - twice a year.



Seventeen years of vitamin A capsules to supplement children aged 6-59 months every 6 months - twice a year – **need to look for alternative sustainable solutions**



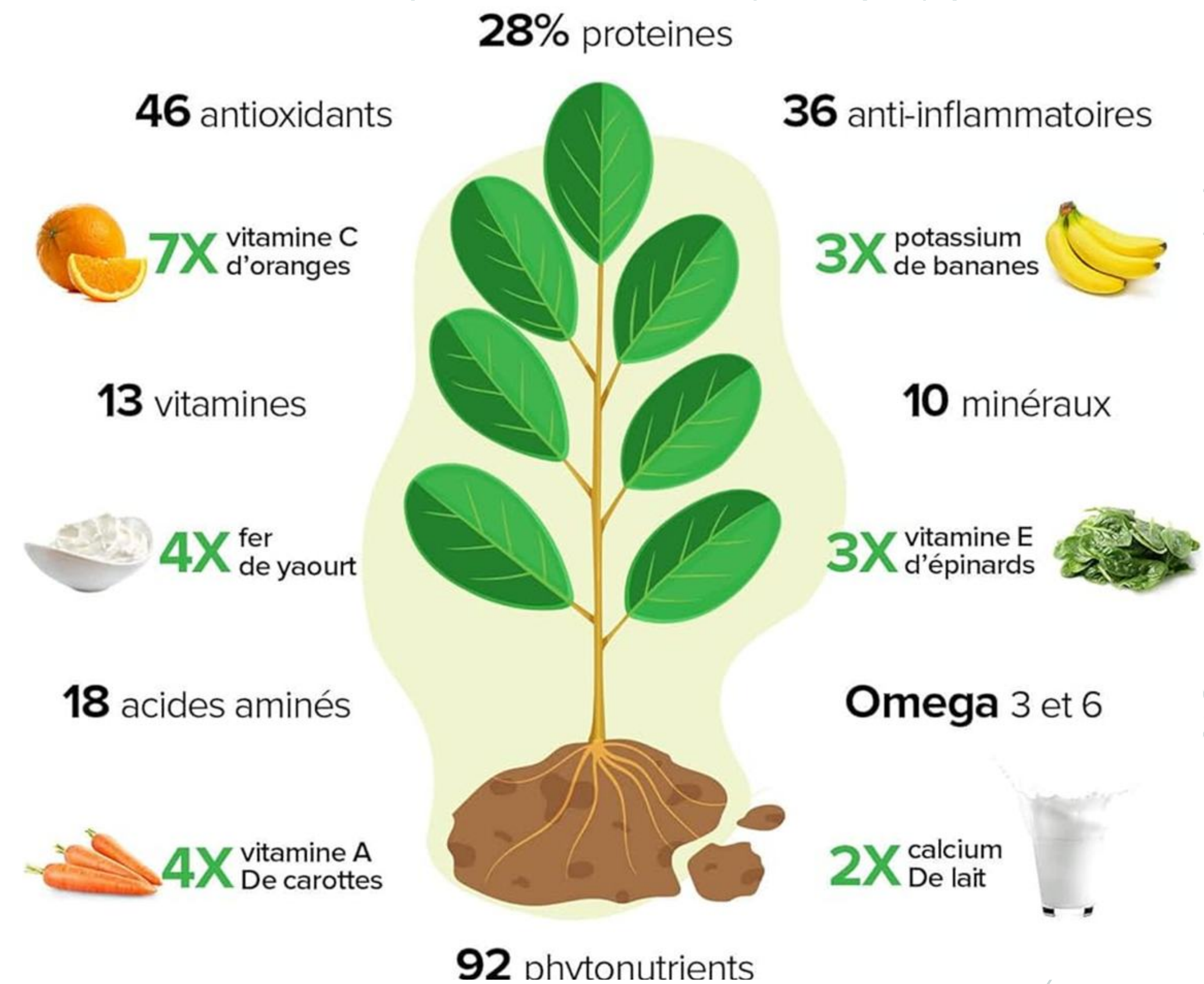
STAPLE DISH IN THE NORTHERN REGIONS OF CAMEROON



MORINGA SOUP

Application in functional foods of importance in the fight against hidden hunger

HARNESSING THE POWER OF (LOCAL FOODS) AND SUPERFOODS



HARNESSING THE POWER OF LOCAL SUPERFOODS

SPIRULINA POWDER

Specially made for Nutraceutical, Capsule, tablets, effervescent tablets, Gummies, Natural energy drink

Good source of magnesium, manganese, and copper

Rich in many nutrients

Rich in the potent antioxidant phycocyanin

Boasts powerful antioxidant and anti-inflammatory properties

High in essential omega-3 and omega-6 fatty acids

May improve muscle strength and endurance, support blood sugar control

One of the most protein-rich foods on Earth (71.90%)



MORINGA BASED PRODUCTS



Moringa Infusion (tea)



Moringa enriched Crackers



Moringa enriched Yoghurt



Moringa Tomato powder



Moringa enriched Sausages



Moringa enriched Infant porridge

MORINGA OLIFERA OR TREES FO LIFE

PRODUCTS CONTAINING MORINGA

- Yoghurts enriched with Moringa
- Seasoned tomato powders enriched with Moringa
- Infant flours enriched with Moringa
- Moringa-based herbal drinks

Products developed by J&A Oben
Foundation jnaobenfoundation.org



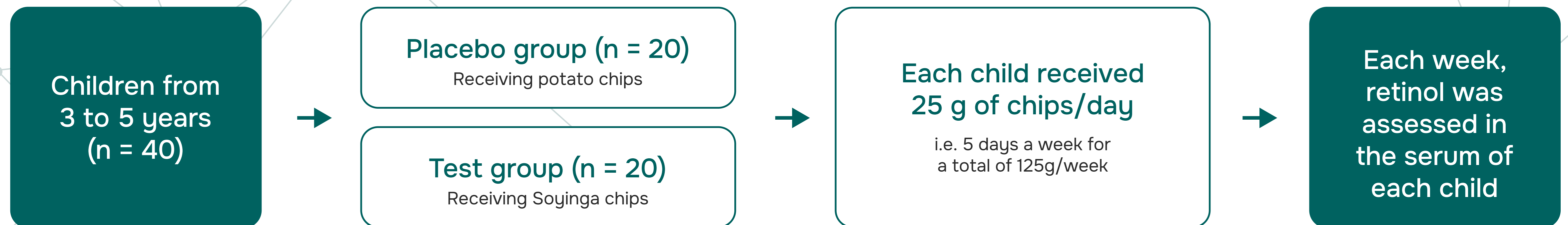
J&A OBEN FOUNDATION (JAOF) WORK ON VITAMIN A DEFICIENCY

COMPOSITION: Soyabean, Moringa & RPO, potato flour

A PILOT STUDY WAS CONDUCTED IN NORTH OF CAMEROON AMONG SCHOOL-AGE CHILDREN

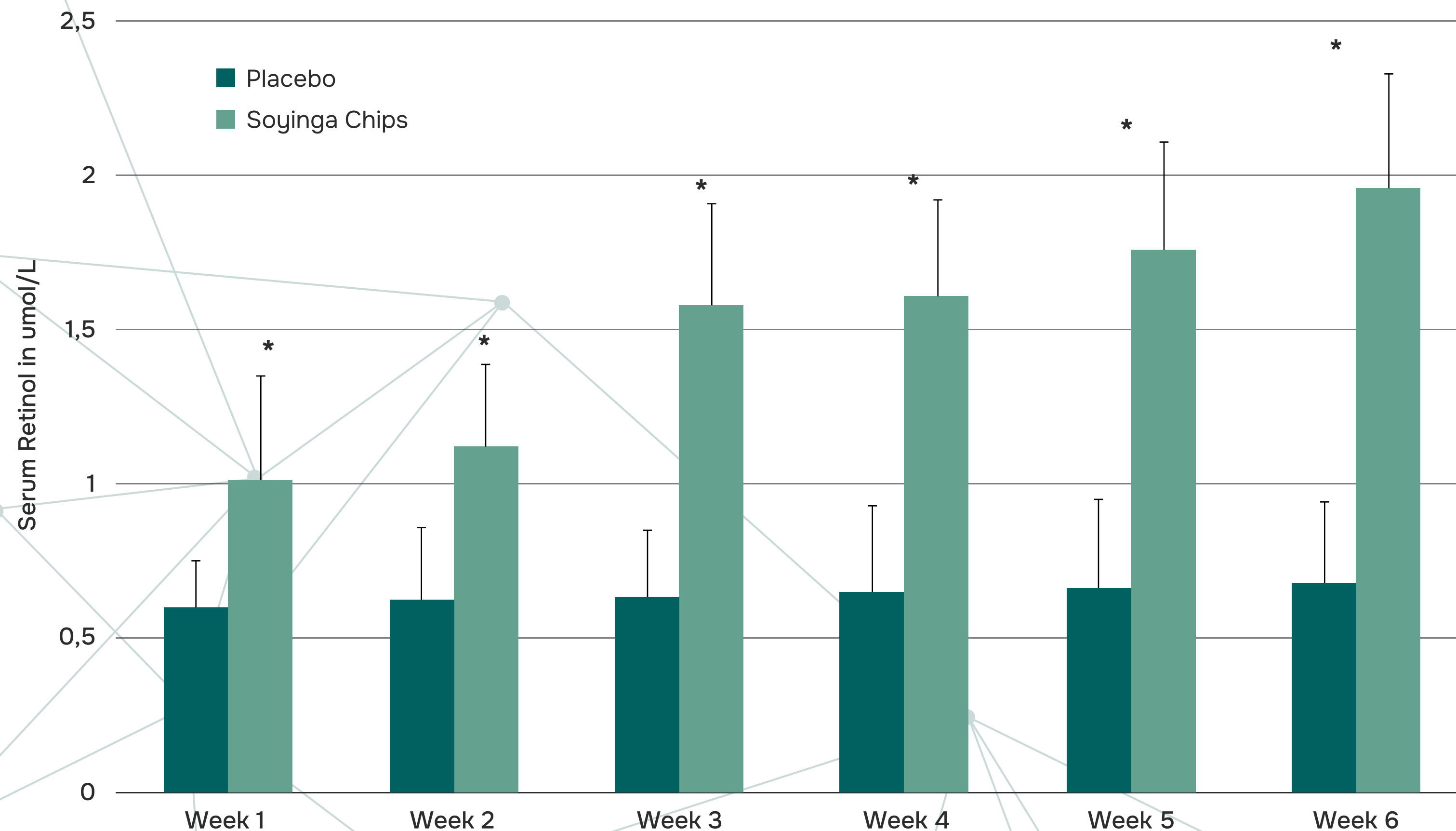
Study duration: 6 weeks

Analysis: The results were analyzed using Student-t test



J&A OBEN FOUNDATION (JAOF) WORK ON VITAMIN A DEFICIENCY

RESULTS



Effect of Soyinga chips on serumretinol in children

*Significance between placebo and Soyinga Chips groups

CONCLUSION AND KEY TAKEAWAYS



The importance of food as medicine can clearly be seen in the use and application of Cameroonian foods in the management of non communicable (lifestyle) diseases as well as diseases of poverty (hidden hunger). Their use by the food industry to produce functional foods should be considered and exploited.

THANK YOU FOR YOUR ATTENTION!

**Julius
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Yaounde - Cameroon