## Lesson 3: Understand the consequences of imbalances in the diet, including obesity, starvation and deficiency diseases (Science, PSHE)

Lesson Objectives	Skills Objectives
<ul> <li>Pupils to understand the meaning of malnutrition and the impact.</li> </ul>	• I can think creatively about solutions and identify multiple options, assess and learn from potential options, create better solutions and decide on a final answer.

Malnutrition refers to deficiencies, excesses or imbalances in a person's energy intake and nutrients. The term malnutrition covers two broad groups of conditions. One is 'undernutrition'— which includes stunting (low height for age), wasting (low weight for height), underweight (low weight for age) and micronutrient deficiencies or insufficiencies (a lack of important vitamins and minerals). The other is overweight, obesity and diet-related non-communicable diseases (such as heart disease, stroke, diabetes, and cancer)". (WHO)

"Malnutrition is a serious condition when your diet does not contain enough nutrients. (NHS)

"Malnutrition affects people in every country. Around 1.9 billion adults worldwide are overweight, while 462 million are underweight. An estimated 41 million young people under 5 are overweight or obese, 159 million are stunted, and 50 million are wasted. Adding to this burden are the 528 million or 29% of women of reproductive age worldwide affected by anaemia, for which approximately half would be amenable to iron supplementation. (WHO)





Curriculum Link: PSHE, Science

Timings	Activity	Resources
20mins	Understand the meaning of malnutrition. Discuss with the person next year and then share. What malnutrition means before looking at the definitions above?	Journey across the world (Youtube Video 1min)

10mins	Causes of malnutrition Where does malnutrition exist? How do you ensure you are eating a healthy balanced diet?	
20mins	<ul> <li>PLEASE NOTE: The young people must understand that due to economic issues/COVID and other issues, malnutrition exists in this country as well around the world.</li> <li>Using the articles below or the link discuss the causes and effects of malnutrition. What leads to malnutrition? Where do you think most people experiencing malnutrition are located?</li> <li>Using problem-solving skills, think creatively about solutions, identify multiple options, assess and learn from potential options, create better solutions and</li> </ul>	<u>Malnutrition is a</u> <u>worldwide crisis.</u> https://www.theguardian. com/education/2022/nov /03/expand-free-school- meals-to-combat-rise-in- malnutrition-say-health- experts
5 mins	decide on a final answer in small groups. What are the solutions? Let's share some ideas Should every young person have a free healthy meal at school every day? What will happen in the holidays?	
5 mins	at school every day? What will happen in the holidays? Should every family have a basic income?	

#### **Supporting Slides for Lesson 3**

These slides support the teaching of lesson 3 and should guide the young young people through the tasks that need to be completed.



### Malnutrition is a world health crisis

26 September 2019 Departmental news Reading time: 2 min (570 words)

#### World Food Day 2019

#### Francesco-Branca-photo

Malnutrition is a complex problem to solve but, as levels of undernutrition and obesity rise, something must be done, says leading food health expert Dr Francesco Branca.

Dysfunctional global food systems are fuelling soaring levels of malnutrition and causing a world health crisis. Dr Francesco Branca, Director of the Department of Nutrition for Health and Development at the World Health Organization (WHO), says more must be done to ensure people have enough to eat and access to the right foods.

"Malnutrition is a complex issue, but it is the main cause of death and disease in the world," says Branca.

He has called for a major review into how food is produced and distributed, and the types of food people are eating. "For example, Africa has a cereal-centred food system and people there are not enjoying a healthy and sustainable diet because they are not consuming enough fruit and vegetables."

Malnutrition is a global problem

Millions of people are suffering from different forms of malnutrition. In fact, 1.9 billion adults are overweight or obese while 462 million are underweight. Among children, 52 million under-fives are suffering from wasting, where they have a low weight for height.

Around one in ten children are born with low birth weight, and in South Asia, it is one in four, and approximately 45% of deaths among children under five are linked to undernutrition. These deaths often occur in low- and middle-income countries where childhood obesity levels are rising at the same time.

"Nutrition is the main cause of death and disease in the world." Dr Branca says the developmental, economic, social and medical impacts of malnutrition are serious and lasting. Events such as World Food Day (October 16) and International Day for the Eradication of Poverty (October 17) will raise awareness of the problem.

He wants governments and suppliers to work together to find sustainable, innovative and technological agricultural solutions to combat food insecurity. "We have to look at priority areas," he says. "There needs to be more investment to improve productivity and change the culture towards food in some regions."

Dr Branca believes too much meat is being consumed in western economies, such as the US, which also negatively impacts the environment, while too little in Africa.

Dr Branca believes too much meat is being consumed in western economies, such as the US, which is also having a negative impact on the environment, while too little in Africa.

#### Healthy food needs to be more accessible and more affordable

"Cheap food tends not to be healthy food; we need government policies that make healthy food more available and affordable. We need to see changes in the public sector so that government organisations lead by example and purchase the right food."

He adds that health education and investment in supplier research will be crucial over the next five years. "One of the biggest barriers is availability of the right food, which is still dictated by the large producers. We need to find a way of engaging with the food industry to change the content of food products. In some countries, a desire to eat the right food cannot be met because of the choice of food available at the supermarket and its price."

#### Awareness of malnutrition is crucial

Dr Branca will continue to raise awareness of malnutrition through high-profile campaigns. "Awareness of climate change is rising among politicians thanks to a global movement and we need to see something similar around food," he says.

This article originally appeared in the World Food Day campaign on https://www.globalcause.co.uk/world-food-day/malnutrition-is-a-world-health-crisis-says-who-expert/

# Expand free school meals to combat rise in malnutrition, say health experts

Doctors and nurses report seeing hungry children on a daily basis as they urge government to act



■ In England, schoolchildren above year 2 only qualify for free school meals if their parents earn less than £7,400 a year. Photograph: Nick Sinclair/Alamy

Doctors and nurses have called for a major expansion of free school meals to combat the growing risk of malnutrition, obesity and other health conditions affecting children in low-income families hit by the cost of living crisis.

A <u>letter signed by scores of clinicians and health experts</u> said NHS professionals were seeing the impact of hunger and poor nutrition in their work every day following a recent doubling in food insecurity across the UK.

Extending free school meals would help to address growing evidence of clinical problems among a cohort of children living in poverty who were going hungry, missing out on healthy food and not eating regularly, the letter said

Nearly 10 million adults and 4 million children in the UK <u>experienced food</u> <u>insecurity</u> in September as the cost of living crisis deepened, according to the Food Foundation. Millions reported skipping meals or going a whole day without eating, and half said they had cut down on fruit and vegetables.



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One signatory, Martin Godfrey, a GP in south London, said he increasingly saw malnourished children. "We are seeing thin, pale children who lack the energy of a normal child. There isn't much clinically we can do to help other than signpost parents to people and places that can. We all need to do more right now. Extending access to free school meals would make a huge difference."

Another signatory, Jonathan Tomlinson, a GP in Hoxton, east London, said inadequate nutrition was manifesting as fatigue, recurrent infection and behavioural problems in youngsters. "One thing I do notice is that most children seem to have iron, folate and vitamin D deficiency and when I ask them, they don't eat anything green."

Dr Helen Stewart, a paediatrician, said: "We are seeing the impacts of poor nutrition every day, with both poor growth of deprived babies and children on the one hand, and rising child obesity on the other. Teachers are telling us about seeing hungry children in school and the impact on their wellbeing and learning."

The letter urges ministers to extend free school meals to an extra 800,000 children on universal credit whose families are in poverty and unable to meet the cost of an adequate lunch but under current criteria are deemed not vulnerable enough to qualify for free meal provision.

Separately, Richard Walker, the managing director of the supermarket chain Iceland, said on Wednesday he wanted to see free school meals provision expanded "as a critical priority" to help combat rising food insecurity. Walker, who sits on the prime minister's business council and has ambitions to become a Tory MP, told the BBC Radio 4 Today programme that families with children were most at risk of going hungry and skipping meals.

"If our country is to succeed long term, we have got to make sure we have a healthy, focused, happy, engaged school population who have decent prospects, and that has to include vulnerable kids," he said.



In England, all infant schoolchildren are entitled to free school meals from reception to year 2, but beyond that only children whose parents earn less than £7,400 a year are eligible. Both the Welsh and Scottish governments are committed to rolling out free school meals to all primary school pupils.

Some schools have described pupil hunger as the **biggest single challenge** they face this winter, with some having dipped into emergency cash reserves to feed pupils ineligible for free school meals. Teachers have **told of desperate children stealing food** from fellow students, eating rubbers, and even "pretending to eat out of an empty lunchbox".

A Department for Education spokesperson said:"We have expanded access to free school meals more than any other government in recent decades, which currently reach 1.9 million children. We are also investing up to £24m in our National School Breakfast Programme, which provides free breakfasts to children in schools in disadvantaged areas."