

Hidden hunger in the UK:

The overlooked crisis of micronutrient malnutrition



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The UK faces a growing crisis of 'hidden hunger', where diets high in calories but low in essential nutrients are undermining health. As debate focuses on ultra-processed foods and obesity, widespread micronutrient deficiencies remain overlooked, demanding a fundamental rethink of how we approach food and public health.

The shift from nutrient quality to calorie quantity in the UK food system

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Our research indicates that society's focus on macronutrients (carbohydrates, proteins and fats) masks significant public health problems driven by deficiency in the micronutrients which are vital for good physical and mental health.

Since the second world war, our focus on food as energy (growers select breeds based on yield and disease resistance and not on nutrient quality) has obscured the role vitamins and minerals (micronutrients) play in maintaining good health, and conversely, the critical role their absence plays in ill health and disease.

Hidden hunger: the growing burden of micronutrient deficiency

Micronutrients are critical to the healthy mental and physical development of children and to maintaining good health, especially in older age. Micronutrient malnutrition, also referred to as 'hidden hunger', is a growing public health issue. Many people lack essential micronutrients

such Iron, Potassium, Selenium, Vitamin B12, vitamins A, C, D, E and K, and folate. These play a development role in every organ and body system, including energy production, immune function, brain development, skeletal growth and maintenance, and metabolism.

The UK is now the sick man of western Europe. We have the lowest Healthy Life Expectancy (HLE) in western Europe and life expectancy in the UK has fallen over the past decade meaning more people spend more of their lives in poor health. For females in England, HLE is now only 61.9 years and 61.5 for males.

Micronutrient deficiencies, particularly in iron, zinc, iodine, and vitamin B12 and vitamin D, are prevalent in the UK, especially in South Asian and Black communities, low-income and elderly populations:

- 25% of women have low iron intake
- 16% of adults have low vitamin D status and 19% of children aged 11 to 18
- Vitamin B12 and folate deficiency affects more than 20% of the over 60s

Our research at the Quadram Institute indicates that these levels of insufficiency or deficiency in micronutrients are higher than we might think. Research by Dr Emma Webb, a clinical research fellow at the Quadram Institute and Consultant Paediatric Endocrinologist at the Norfolk and Norwich University Hospital, reveals that of 120 children in a specialist obesity clinic, 80% had deficiency/insufficiency of at least one key micronutrient.

Emerging risks and the need for systemic change in diet and health policy

Much hope is being held out for the new GLP-1 agonists (for example, Mounjaro and Ozempic) that promote weight loss and reduce appetite. Weight loss will certainly help improve people's health but the problem of micronutrient malnutrition may well remain.

This is an issue the food and drinks industry is grappling with. People's appetite for food (and alcohol) drops and buying habits change when they are taking GLP1 agonists. But if you are not eating a balanced nutritional diet and you are just eating less food, you may still be lacking key micronutrients essential for your physical and mental health.

As a result, the food industry and supermarkets are increasingly looking at 'nutrient dense' products specifically for people who are on GLP1 agonists. Smaller portions but packed with nutrients. For those that can afford such products this may help but at a UK population level this is unlikely to be a viable option for many people.

For the sake of the health of the nation, we really need to quantify and understand the problem of micronutrient malnutrition, the role it plays in chronic health conditions and work with the government and industry to address hidden hunger.