FIGHTING WIDESPREAD malnutrition in Iraq

by Lena Kampehl

The Wheat Flour Fortification program helps to compensate for nutritional deficits

In Iraq, as in many other regions, it is chiefly the women and children who suffer from an undersupply of iron, folic acid, the vitamins A, B12 and D, and zinc. As much as 10 years ago, this situation prompted the government to issue statutory provisions governing the fortification of wheat flour with micronutrients. But since 2013, implementation of these provisions has been impeded by political unrest.

Statutory provisions on flour fortification now exist in more than 80 countries. More governments are realizing the importance of supplemented foods and have come to regard fortification programs as a valuable investment in the health of the population. But unstable political conditions or economic disruptions hamper their reliable and consistent implementation.

For decades, the approximately 36 million inhabitants of Iraq, a country with a magnificent history, have suffered from wars, embargos, terror and unrest. Such an environment impairs the health of the population, as women and children, in particular, show an inadequate nutritional status and suffer from chronic or acute deficiency symptoms.

The situation is particularly critical in the case of iron, a trace element that plays a vital role in oxygen transport through the bloodstream. The symptoms of hypoferric anaemia include vitality deficiency, poor concentration, fatigue, lassitude and heart problems. In pregnant women it increases the risk of miscarriage. Moreover, a folic acid deficiency may severely affect the development of the embryo, a condition that is widespread in Iraq. For example, women who have taken in too little folic acid before becoming pregnant have an increased risk of giving birth to a child with serious neural tube deformities in the brain and vertebral column (spina bifida). In 2011, 18 babies in 10,000 were born with neural tube defects in Iraq — about twice the incidence in Western Europe.

A growing percentage of Iraq's population, particularly women and children, suffer nutritional deficits. Photos courtesy of Mühlenchemie.

MANDATORY FLOUR FORTIFICATION

About 10 years ago, governmental and non-governmental organizations launched the project "Wheat Flour Fortification

(WFF)," in order to improve the supply of these vital micronutrients to the Iraqi population. The choice fell explicitly on wheat flour as a staple food, since the average per capita flour consumption is over 220 grams daily. In Iraq, flour is usually made into flat bread, mostly by artisan bakeries using traditional methods and a clay oven. It is eaten at every meal.

When determining the amounts to be used in fortification, the partners in the initiative agreed on 30 to 60 ppm iron in the form of ferrous sulphate and 1.4 to 2.8 ppm folic acid. In order to relieve the financial burden on the mills, the government agreed to pay the cost.

Implementation started in 2006. Under the overall responsibility of UNICEF, high-quality premixes containing iron and folic acid were supplied to well over 100 mills in the country. UNICEF also took on the nation-wide distribution of the feeders for dosing the micronutrients. In order to ensure their correct use, several technicians were instructed in the installation, operation and maintenance of the feeders.

STAGNATION AFTER A FAST START

For the first few years, the WFF initiative ran extremely well. According to a survey by the Iraqi National Research Institute, approximately 95% of the country's mills were fortifying their flour with micronutrients by the beginning of 2013. In this way the millers made a valuable contribution to improving the state of health of the Iraqi population.

But the subsequent political unrest had a direct effect on the WFF program: by the end of 2013, fortification was only carried out by about 65% of the mills. Since then, the percentage has fallen continuously.

Nazim Hamed, area sales manager, Greater Middle East, with the premix supplier Mühlenchemie, is familiar with the problem.

"The situation is unsatisfactory all around," Hamed said. "The mills would very much like to enhance their flours with the valuable micronutrients again. And the government is well aware of how important it is to supply the population with enough vitamins and minerals. But the circumstances are so precarious that the WFF program has practically come to a halt."

Samoon bread is very popular in Iraq.

Sarah Zimmermann, communications coordinator with the Food Fortification Initiative (FFI), comes to an equally sobering conclusion.

"The situation in Iraq has been critical since 2013," she said. "We assume that one of the basic problems is getting the micronutrients to the mills."

INSUFFICENT VITAMIN CONSUMPTION

Unfortunately there are no official statistics on the current position in respect to the supply of micronutrients. But UNICEF and FFI are drawing attention to the fact that the Iraqi population lacks the vitamins A, B12 and D, and also zinc, as well as iron and folic acid. Each of these micronutrients is responsible for important functions in human metabolism. Among other things, a deficiency may weaken the immune system, damage vision, impair the stability of bones or result in disturbed development in children.

A survey of the iron status of Iraqi women and children carried out a few years after the start of the WFF program shows the effectiveness of flour fortification with micronutrients. Before the introduction of flour fortification, 35.5% of all Iraqi women of childbearing age suffered from hypoferric anaemia; then the percentage fell to less than 5%. In children, the proportion fell from 26% to 6.8% during the same period. The MICS Study (Multiple Indicator Cluster Survey) of 2011, initiated by UNICEF and government authorities, came to a similarly positive conclusion: the percentage of Iraqi children under the age of 5 who were underweight fell by half — from about 16% to 8.5% — between 2000 and 2011.

Not only in Iraq, but in many other countries, flour fortification has proven to make an extremely important contribution to health when bread is the staple food of the general population.

The consumption of bread fortified with vitamins and minerals is an important step toward fighting malnutrition by supporting the national fortification program in order to raise the state of health of the Iraqi population again. WG

Lena Kampehl, is in research and development for Vitamin Premixes at Mühlenchemie. She can be reached at lkampehl@muehlenchemie.com.

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