Progress in Flour Fortification in Central and Eastern Europe and Commonwealth of Independent States

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Factors Impacting Nutrition and Health Status of Young Children

- Access to and utilization of adequate and high quality foods
- Quality and effectiveness of health services
- Quality and level of maternal and child care
- Environmental conditions

Inappropriate feeding practices → weakened immune systems → increased exposure to microbiological contamination → excess illness and reduced growth
Persistence of Malnutrition in Food Secure Households

- Pregnant and nursing women fail to eat enough calories or protein-rich foods, lack adequate nutrients, or have untreated infectious diseases which contribute to low birth-weight and malnutrition of the child.
- Recommendations for Infant and Young Child Feeding are not followed.
- Food allocation choices within families may favor certain individuals.
- Caregivers lack education about feeding children who are ill with diarrhea.
- Food quality may decrease in times of economic hardship though the quantity remains the same.
Investing in Nutrition is **CRITICAL** to Achieving the Millennium Development Goals

<table>
<thead>
<tr>
<th>Goal</th>
<th>Nutrition Effect</th>
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<tbody>
<tr>
<td>Goal 1: Eradicate extreme poverty</td>
<td>Malnutrition erodes human capital through impacts on cognitive and physical development.</td>
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<td>Goal 2: Achieve universal education</td>
<td>Malnutrition affects the chances a child will go to school, stay in school, and perform well.</td>
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<td>Goal 4: Reduce child mortality</td>
<td>Malnutrition associated with most child deaths and main contributor to burden of disease.</td>
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<tr>
<td>Goal 5: Improve maternal health</td>
<td>Malnutrition is associated with most major risk factors for maternal health and mortality.</td>
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<tr>
<td>Goal 6: Combat HIV/AIDS &amp; TB</td>
<td>Malnutrition increases HIV risk, compromises therapy, and hastens full-blown AIDS.</td>
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UNICEF’s Focus:
Support 3 Strategic Results in Maternal, Newborn and Child Health and Nutrition

• Evidence-based analysis for policy and action

• Development of enabling institutional frameworks

• Large-scale acceleration of effective coverage interventions
### CEE/CIS Region

<table>
<thead>
<tr>
<th>Albania</th>
<th>Moldova</th>
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<tbody>
<tr>
<td>Armenia</td>
<td>Montenegro</td>
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<tr>
<td>Azerbaijan</td>
<td>former Yugoslav Republic of Macedonia</td>
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<td>Belarus</td>
<td>Romania</td>
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<td>Bosnia and Herzegovina</td>
<td>Serbia</td>
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<td>Bulgaria</td>
<td>Tajikistan</td>
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<td>Croatia</td>
<td>Turkey</td>
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<td>Georgia</td>
<td>Turkmenistan</td>
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<tr>
<td>Kazakhstan</td>
<td>Ukraine</td>
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<td>UN Admin Province of Kosovo</td>
<td>Uzbekistan</td>
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<tr>
<td>Kyrgyzstan</td>
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Assessing Micronutrient Deficiencies in the Region

National Nutrition Surveys:

- UN Administered Province of Kosovo
- Albania
- former Yugoslav Republic of Macedonia
- Georgia
- Kyrgyzstan
- Tajikistan
- Turkey

Other countries have DHS and MICS data available.
Why Flour Fortification?

- Flour fortification is a low-cost, effective public health intervention to address micronutrient malnutrition.
- Bread is widely consumed in this region by individuals from all economic backgrounds.
- Flour fortification improves diet quality without requiring behavior change.
- Flour fortification helps prevent new cases of micronutrient malnutrition.
Flour Fortification: Current Status

- Mandatory fortification of at least 1 type of flour
- Planning for mandatory fortification
- No fortification efforts known at this time

Legend:
- Light blue: Mandatory fortification of at least 1 type of flour
- Yellow: Planning for mandatory fortification
- Gray: No fortification efforts known at this time
Flour Fortification: Regional Progress

- 5 countries mandate fortification of at least one commonly consumed type of flour: Kazakhstan, Kyrgyzstan, Moldova, Turkmenistan, Uzbekistan

**Ex: Kazakhstan**

**Government Resolution No. 708**

<table>
<thead>
<tr>
<th>Flour Type:</th>
<th>Iron (ppm)</th>
<th>Folic Acid (ppm)</th>
<th>Zinc (ppm)</th>
<th>Niacin (ppm)</th>
<th>Riboflavin (ppm)</th>
<th>Thiamin (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat</td>
<td>55*</td>
<td>1.5</td>
<td>25</td>
<td>18</td>
<td>2.8</td>
<td>3.3</td>
</tr>
</tbody>
</table>

* Electrolytic Iron

Source: Popper, L., Schafer, W., Freund, W. *Future of Flour* 2006
Flour Fortification: Regional Progress

• 10 countries are actively engaged in flour fortification planning activities

Azerbaijan
- Experts assigned to draft flour fortification legislation & develop a national action plan for the control and elimination of Iron deficiency anaemia
- Milling assessment and advocacy meetings conducted in 2012
- Currently designing a national nutrition survey

Georgia
- National Nutrition Survey conducted in 2009 on women of reproductive age, pregnant women and children <5 years old.
- Conducting Cost Benefit Analysis of Nutrition Programs

UN Administered Province of Kosovo
- Nutrition Survey for pregnant women and school children conducted in 2009
- Milling Industry assessment conducted in 2010
- Training of trainers for millers completed in 2011
- Standards and protocols for flour fortification developed; draft law pending review by parliament
- Public awareness campaign planned for June-December 2012
- Premix on order
### Macedonia
- National Nutrition survey conducted in 2010 among women and children <5
- Training of trainers for millers and cost benefit analysis completed in 2011
- Scientific and Nutrition Policy Development Workshop to address anaemia and nutrition status of pregnant women and children U5 completed in May 2012.

### Armenia
- Approval of the Concept Note on Flour Fortification and Plan of Action by the Government on 17 February.
- Public awareness campaign activities scheduled to start summer 2012
- Thirteen feeders obtained for initiation of flour fortification
Regional Challenges

• Political commitment

• Organizing stakeholder efforts and understanding roles and responsibilities

• Uncertainties about premix procurement, storage and use

• Design and implementation of effective and sustainable monitoring and evaluation systems
His name is today

“We are guilty of many errors and many faults, but our worst crime is abandoning the children, neglecting the fountain of life. Many of the things we need can wait. The child cannot. Right now is the time his bones are being formed, his blood is being made, and his senses are being developed. To him we cannot answer 'Tomorrow,' his name is today”

Gabriela Mistral, chilean poet