Nutrition- and gender-sensitive agriculture

Associate Professor Robyn Alders, AO
Faculty of Veterinary Science & Charles Perkins Centre
robyn.alders@sydney.edu.au
Why is nutrition-sensitive and gender-sensitive agriculture important?

- **Maternal stunting** affects offspring outcomes
- **Preconception nutrition** is crucial
- **Pregnancy** and **lactation** increase nutritional requirements
- **Challenges** meeting recommendations for breastfeeding
- **Mothers and children** have **specific micronutrient** requirements

Wong, 2015
What challenges do we face?

Nutritional information for breastfeeding women

Environment where breastfeeding women live

Tanzanian Food and Nutrition Centre, 2014

Alders, 2014

de Bruyn, 2014
Compared to plants, animal source foods provide more:

- Energy and fat
- **Vitamin B-12** (the *only* dietary source)
- Riboflavin
- **Vitamin A** (the *only* preformed source)
- Vitamin E
- Available iron (the *only* dietary source of heme)
- Available zinc
- Calcium
- **Vitamin D** (the *only* dietary source)

Credit: Lindsay Allen 2015
Comparison of nutrient content of meat, milk and eggs (relative amount/kcal)

<table>
<thead>
<tr>
<th></th>
<th>Meat</th>
<th>Milk</th>
<th>Eggs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heme iron</td>
<td>+++</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total iron</td>
<td>+++</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Zinc</td>
<td>+++</td>
<td>+</td>
<td>+</td>
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<tr>
<td>Vitamin A</td>
<td>+</td>
<td>++</td>
<td>+++</td>
</tr>
<tr>
<td>Riboflavin</td>
<td>++</td>
<td>+++</td>
<td>++</td>
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<tr>
<td>Vitamin B12</td>
<td>+++</td>
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<tr>
<td>Folate</td>
<td>+</td>
<td>+++</td>
<td>+</td>
</tr>
<tr>
<td>Calcium</td>
<td>0</td>
<td>+++</td>
<td>0</td>
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</tbody>
</table>

Credit: Lindsay Allen 2015
Achieving balance ...

Imagine if animal source food could be available once a week to undernourished women and children ...
Food for thought

• IQ is declining globally
• The double burden of under and over nutrition spans “developed” and “underdeveloped” countries
• Arable land is finite
• Climate change and weather variability is already impacting on agricultural production
• What is an optimal, ethical and sustainable diet for the world’s dominant species?
Thank you for your attention.

Questions?

Comments?