

# Food Fortification National Committee Meeting

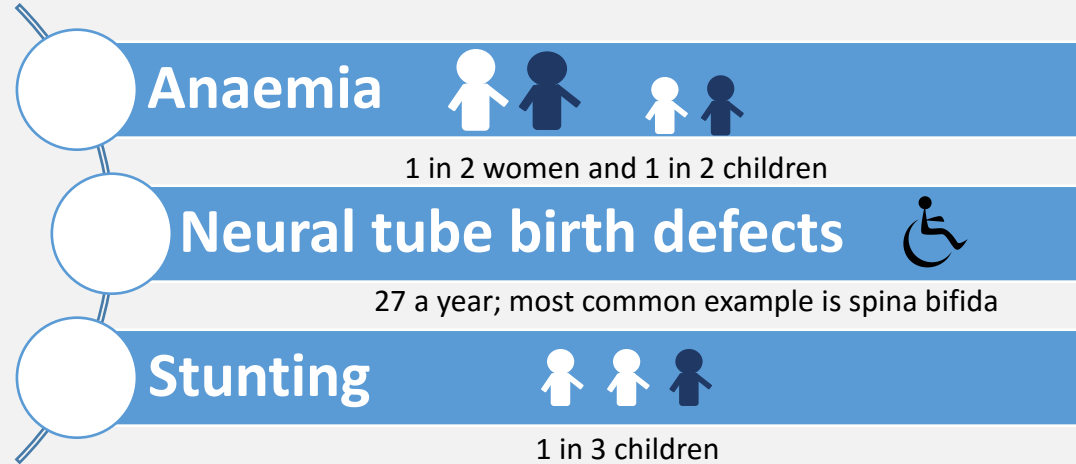
29 January 2015

# Project overview

- Project aims to fortify wheat flour and rice in the Solomon Islands



# Solomon Islands Health Crisis



## Anaemia:

- Lowers productivity
- Decreases mental capacity
- Contributes to maternal deaths

## Neural tube defects:

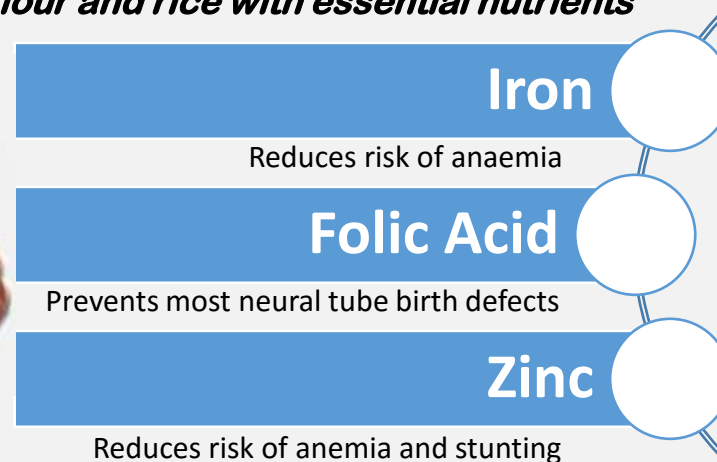
- Cannot be cured
- Cause paralysis or death

## Stunting:

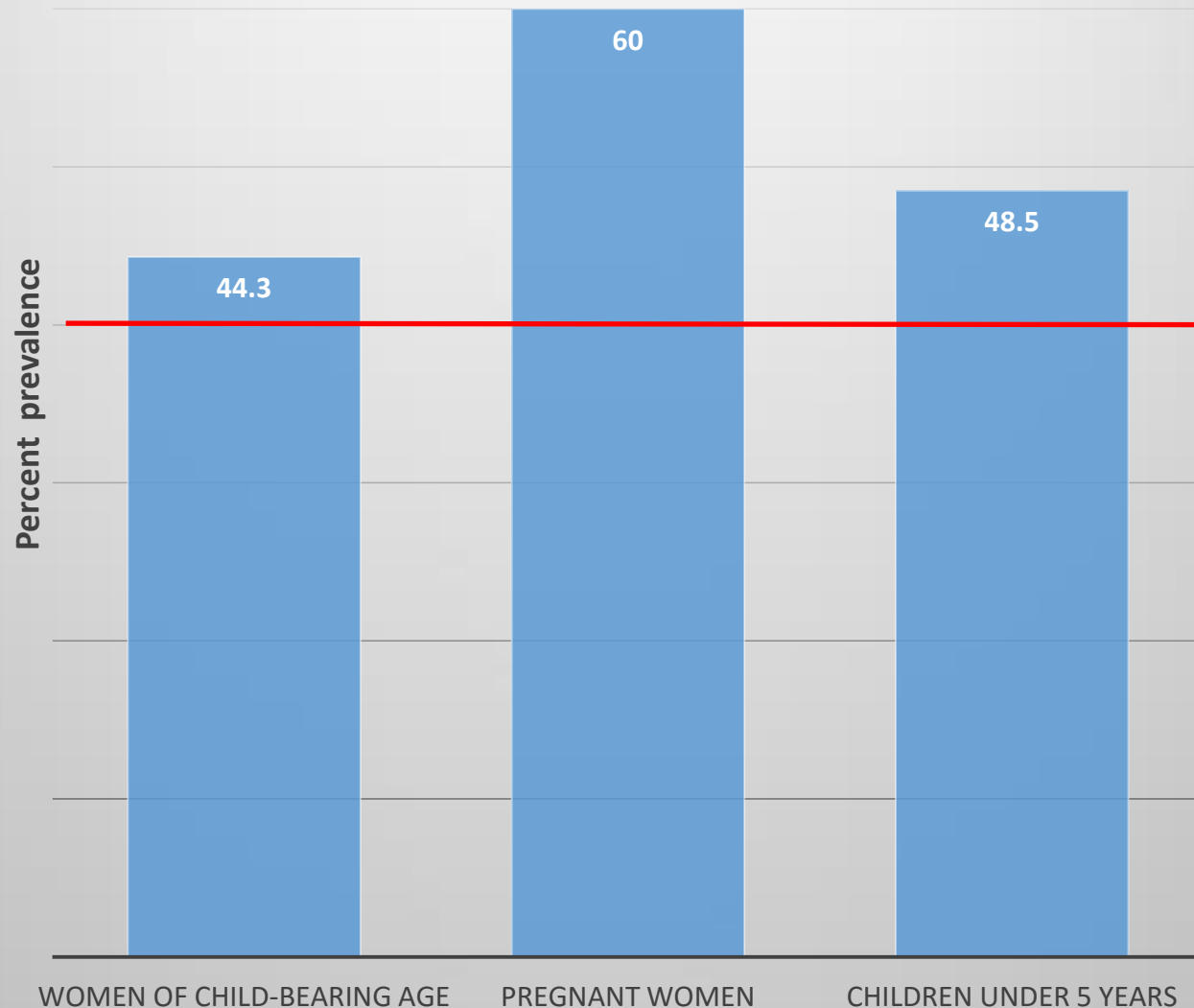
- Makes diarrhea worse
- Increases risk of infection and pneumonia

## Prevention Strategy

*Fortify wheat flour and rice with essential nutrients*



## Percent of people with anaemia in the Solomon Islands



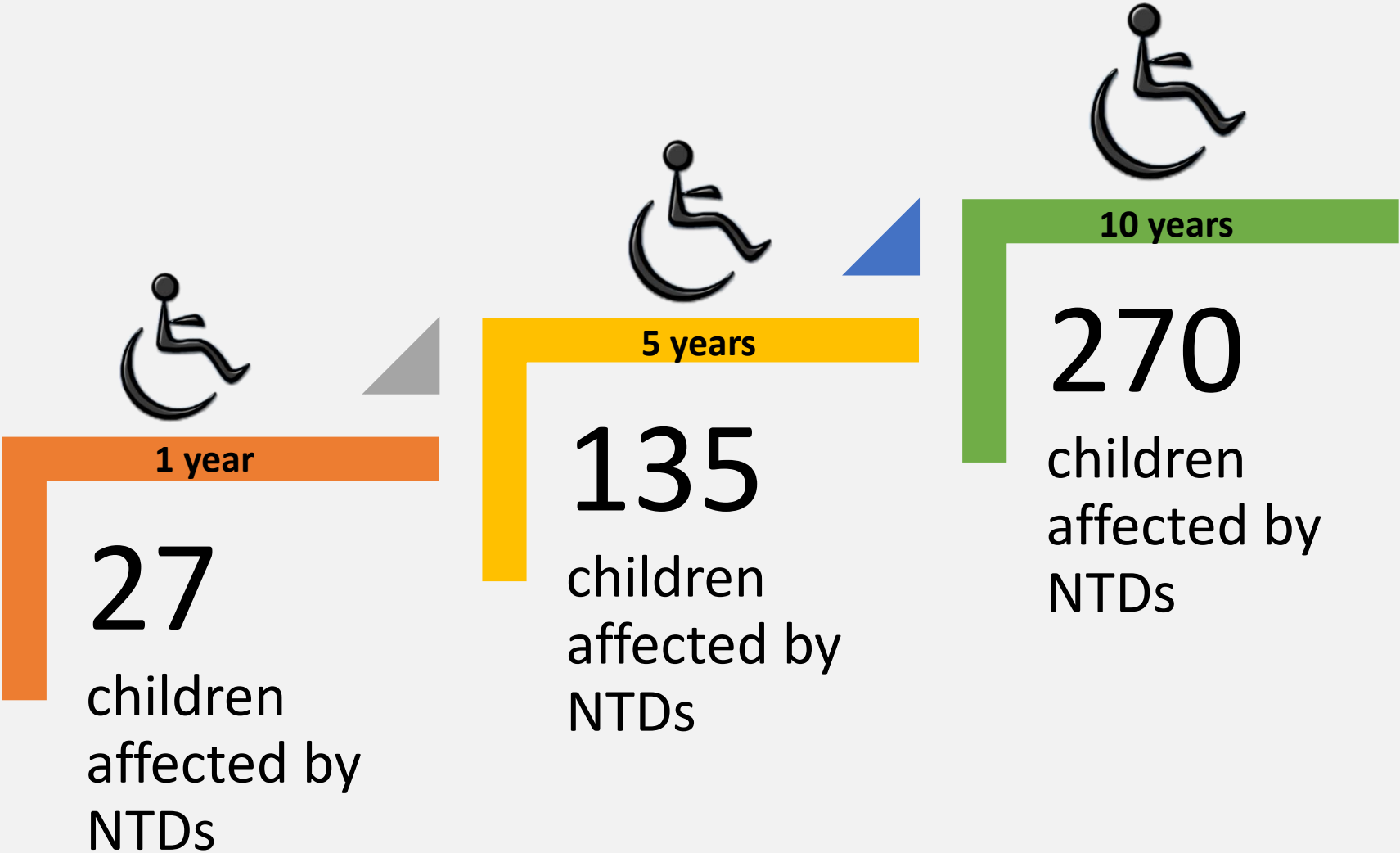
*Fortifying wheat flour and rice will help prevent anaemia*

More than 40% is considered a severe public health problem

### Consequences include:

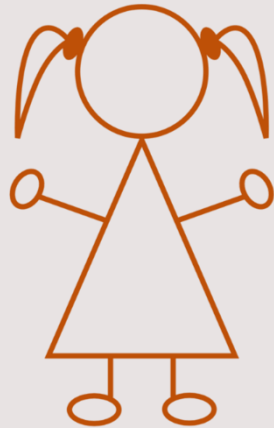
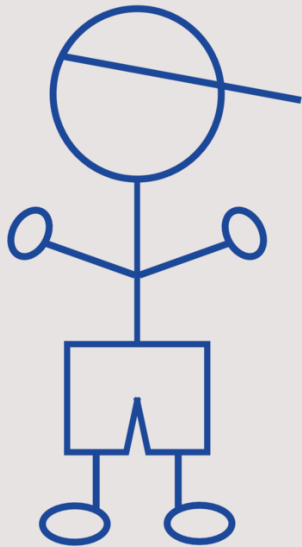
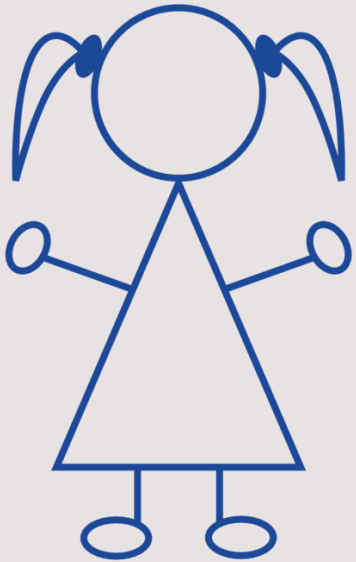
- Lower productivity in adults
- Less mental development in children
- Increased maternal deaths

*Neural tube birth defects (NTDs) such as spina bifida affect*  
**27 pregnancies per year** *in the Solomon Islands*



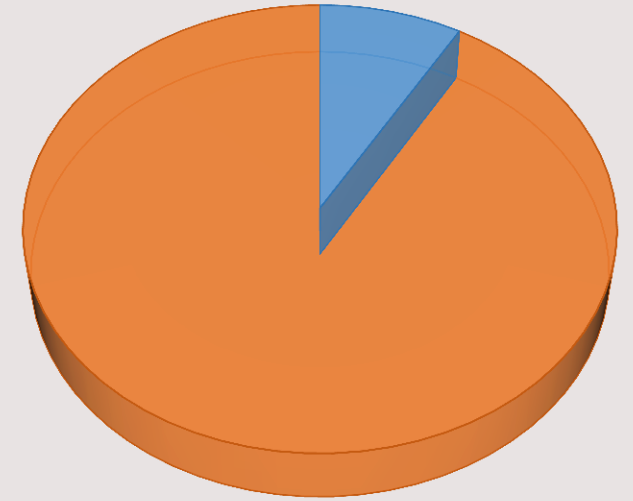
**1** in **3**

children in the **Solomon Islands** have low height for their age (stunting)



**8.5%**

of children in the Solomon Islands are considered to be severely stunted



*Stunting is a sign of long-term under-nutrition, but **fortifying wheat flour and rice** can help improve nutrition and reduce stunting*

# Fijian success with wheat flour fortification

Reduced prevalence of iron, folate and zinc deficiency and anemia in women of child bearing age

Deficiency	2004 (Before %)	2010 (After %)
Iron	22.9	7.9
Folate	8.1	1.0
Zinc	39.3	0.0
Anaemia	40.3	27.6

# Food Fortification National Committee

- In the Solomon Islands, the Food Fortification National Committee (FFNC) will drive the design and implementation of rice and wheat flour fortification
- The FFNC is comprised of officials from:

## Government

- Ministry of Health
- Ministry of Finance – Customs
- Ministry of Agriculture – Quarantine

## Industry

- Solrice
- Delite Flour Mill

## Donors

- Food Fortification Initiative
- World Health Organization
- UNICEF



# Action Plan of Reforms

- Six core actions:
  1. Program design
  2. Robust legislation
  3. Rice and wheat flour fortified
  4. Regulatory monitoring and enforcement system
  5. Communications and advocacy
  6. Impact Evaluation

# Estimating consumption

- Based on analysis of data from Delite Flour Mill, Solrice, FAO and Customs
- Wheat flour availability\* – 53-105 grams/person/day
- Rice availability\* – 153-224 grams/person/day
- Based on population size of 612,000

\*Availability is an indicator of consumption

# Summary of current data – wheat flour availability

**Table: Wheat flour availability**

Source	Quantity	Grams/capita/day
Food Agriculture Organization - 2011	38.5 kg/capita	105
Delite – 2014 sale figures	11,496 mt/annum	51
Punjas – 2014 estimated imports	840 mt/annum	4
Customs – 2014 estimates	492 mt/annum	2

Wheat flour availability = 53-105 grams/person/day

# Summary of current data – rice availability

**Table: Rice availability**

Source	Quantity	Grams/capita/day
Food Agriculture Organization - 2011	55.8 kg/capita	153
Solrice – 2014/15 estimates of its own imports	45,000 mt/annum	201
Solrice – 2014/15 estimates of all rice imports, from all importers	50,000 mt/annum	224
Food Fortification Initiative – estimates based on customs data and Solrice 2014/15 figures	46,615 mt/annum	209

Rice availability = 153-224 grams/person/day

# Additional data from STEPS survey and HIES

- Provide valuable insights on wheat flour and rice apparent consumption for different population groups
- Ensure the fortification program aligns well with other nutrition interventions
- Data should be available mid-2015

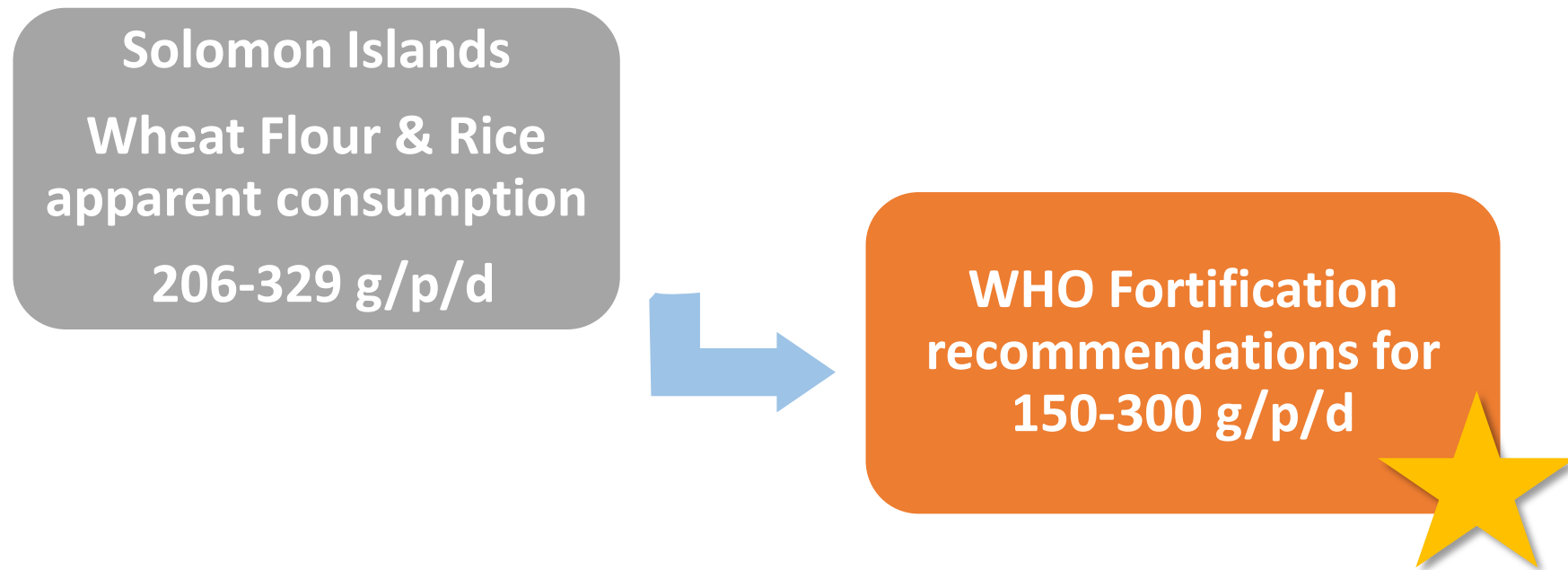
# Recommended nutrient levels

1. Calculate combined apparent consumption of wheat flour and rice



# Recommended nutrient levels

2. Use the 2009 World Health Organization (WHO) wheat and maize flour fortification recommendations to identify an appropriate category for the Solomon Islands



# Recommended nutrient levels

3. Calculate the standard for fortified rice to ensure that nutrient additions targeted by the 2009 WHO recommendations are met by the combination of fortified wheat flour and rice consumed

NB: It is important to retain the current standard for fortified wheat flour as this is consistent with the regional wheat flour standard. There is no regional standard for rice.



# Recommended nutrient levels

**Table: Current Solomon Island wheat flour standards and proposed rice standards to meet WHO fortification recommendations**

<b>Nutrient</b>	<b>WHO recommendations for 150-300 g/p/d (mg/kg)</b>	<b>Amount in wheat flour standard (mg/kg)</b>	<b>Amount proposed for rice standard (mg/kg)</b>
<b>Folic acid</b>	1.3	2	1.1
<b>Iron</b>	60 (electrolytic) 30 (ferrous fumarate)	60 (electrolytic) 45 (ferrous fumarate)	60 (micronized ferric pyrophosphate [mfp])
<b>Niacin</b>	Not applicable	55	70
<b>Riboflavin</b>	Not applicable	2	0 (none)
<b>Thiamin</b>	Not applicable	6	5
<b>Zinc</b>	40	30	45

# Decision for FFNC

- Agree to base the national standards for fortification on the currently available data for wheat flour and rice availability
- Endorse recommended nutrient levels for rice fortification:

Nutrient	Amount (mg/kg)	Nutrient	Amount (mg/kg)
<b>Folic acid</b>	1.1	<b>Riboflavin</b>	0 (none)
<b>Iron</b>	60 (mfp)	<b>Thiamin</b>	5
<b>Niacin</b>	70	<b>Zinc</b>	45

- Agree to establish national standards for rice fortification, using these nutrient levels