

Indonesia's Experience with Mandatory Flour Fortification

Presented by :

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STARTING POINTS

- In 1995: Indonesia government, UNICEF, ADB started to study wheat flour fortification based on micronutrient deficiency in Indonesia
- Iron deficiency is a significant public health issue, affecting 64% of pregnant women and 56% of children under five years of age



Why Wheat Flour ?

- ↪ Widely consumed, second after rice
- ↪ Easy to monitor
- ↪ Technically feasible
- ↪ Relatively inexpensive
- ↪ Minimal effect on quality
- ↪ Easy to apply for end products

Important for Industry

- Fortificant must not affect end product quality
 - a. Taste
 - b. Color
 - c. Texture
- Must not react with other ingredient
- Must not interfere with the process
- Economically feasible
- Must be still available after the process

Flour Fortification Program in Indonesia

- MoH decree (1998): Flour Fortification produced

Bogasari Flour Mills – Jakarta	January 1999
Bogasari Flour Mills – Surabaya	February 1999
Pangan Mas Persada – Cilacap	May 1999
Sriboga Ratu Raya – Semarang	July 1999
Berdikari Flour Mills – Ujung Pandang	September 1999

- Wheat flour fortification has become mandatory in Indonesia starting 2 February 2002.

Fortification dosage :

<i>Iron</i>	<i>min 50 ppm</i>
<i>Zinc</i>	<i>min 30 ppm</i>
<i>Thiamine</i>	<i>min 2.5 ppm</i>
<i>Riboflavin</i>	<i>min 4 ppm</i>
<i>Folic acid</i>	<i>min 2 ppm</i>

Regulations Supporting Mandatory Flour Fortification

- **1980** : Food fortification was stated in National Five Year Development Plan (1980-1984)
- **1996** : Food Law was enacted with a paragraph on food fortification
- **1998** : MoH decree : Flour fortification produced
- **2000** : MoIT issued Indonesian National Standard (SNI) for wheat flour
- **2001** : MoIT issued mandated wheat flour fortification with Iron, Zinc, Folic Acid, Vit B1 & B2
- **Jan 2002** : Authorize laboratory checking for wheat flour
- **Feb 2002** : SOP on Mandatory SNI on wheat flour
- **Mar 2002** : Flour importation procedures
- **2003** : Fortification dosage to be in line with SNI

Some issues arose after SNI Regulation abolishment (Feb 2008 – Jul 2008)

24 Jan 2008 : MoI uplifted the existing SNI regulation.
There was no mandated wheat flour fortification

- Indonesian Wheat Flour Association (APTINDO) committed to fortify wheat flour.
- There are some Flour Mills (non APTINDO) produced non SNI wheat flour

14 July 2008 : MoI re-installing SNI wheat flour with
mandated fortification.

INDONESIAN FLOUR MILLS ASSOCIATION (APTINDO)

Chairman

Franciscus Welirang

Secretary General

Alwin Arifin

Treasurer

Haryono Mardi

Executive Director

Ratna Sari Loppies

Members

Abdul Habi Tsabit

Agus Irawan

Herman Djuhar

Junsi Heru Oentarto

Pasha Ismaya Sukardi

APTINDO SECRETARIAT:

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Key Success Factors

- Political will from all stakeholders (government, industry, academics and civil society)
- Assistances in the beginning phase
- Sufficient regulations to support mandatory fortification
- Economic feasibility
- Continuous support from government, donors and health related NGOs (Non Governmental Organizations)

NEXT STEPS

- Evaluate effectiveness of the program
- Improve monitoring process: lab equipment, manpower, method of analysis.
- Implement quick filtering (iron spot test) in the customs and the BPOM.
- Evaluate choice of iron fortificant should the current one not be efficacious.

Thank You

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