



# Nutrition Surveillance through Life Course Approach, Thailand



DEPARTMENT OF HEALTH  
BUREAU OF NUTRITION

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# Outline of Presentation

 Strategic linkage from global to national nutrition plans

 National Nutrition Situation

 National Nutrition Policy and Intervention programs



## Nutrition Situation

**1960 - Anaemia in preg: 57%;**  
**- B1 deficiency: 23%;**  
**- B2 deficiency: 47%;**  
**- Low serum retinal: 38%;**  
**- Goitre in school children: 29%**

**1981 - PEM (Wt/Age of U 5): > 50%**

**1986 - PEM (Wt/Age of U 5): 30%**  
**1989 - Goitre in school children: 19%**

**1991 - Anaemia in preg: 18%**

**1995 - B1 deficiency: < 1%;**

**- B2 deficiency: < 1%**

**1996 - PEM (Wt/Age of U 5): 15%**

**- Anaemia in preg: 13%;**

**- Goitre in school children<sup>4</sup>: 4%**

**2003 - Goitre in school children: 1%**

**2005 - Anaemia in preg: 10%**

**2006 - PEM (Wt/Age of U 5): 9%**

**2007 - UI in preg<sup>8</sup> < 150 µg/L: 61%;**

**- Low serum retinal: 16%**

**2008 - UI in preg < 150 µg/L: 56%**

**2010 - UI in preg < 150 µg/L: 43%**

**2012 - PEM (Wt/Age of U 5): 7%**

## Thailand's Development Plans

1962	1 <sup>st</sup> NEDP	: Economic Infrastructure, Sectoral Plans
1967	2 <sup>nd</sup> NEDP	: Improvement of Agriculture, Infrastructure
1972	3 <sup>rd</sup> NEDP	
1977	4 <sup>th</sup> NESDP	: + <b>Social Plan + Food and Nutrition Plan (FNP)</b> + <b>Primary Health Care (PHC)</b>
1982	5 <sup>th</sup> NESDP	: + <b>Poverty Alleviation Plan (PAP) + Integrated and implemented PHC</b> + <b>FNP and Basic Minimum Needs (BMN) Indicators in rural/urban communities</b>
1987	6 <sup>th</sup> NESDP	
1992	7 <sup>th</sup> NESDP	: <b>1992 + School Lunch Program (SLP)</b> + <b>School Milk Program (SMP)</b>
1997	8 <sup>th</sup> NESDP	
2002	9 <sup>th</sup> NESDP	
2007	10 <sup>th</sup> NESDP	: <b>2008 + National Food Committee Act</b> : <b>2010 + Strategic Framework for Food Management (SFFM) approved by cabinet</b>
2012	11 <sup>th</sup> NESDP	: Integration of the SFFM and the 11 <sup>th</sup> NESDP : Promote cooperation and integration of all relevant sectors, academia, business and NGOs to strengthen national food and nutrition security
2017	12 <sup>th</sup> NESDP	: 2010 - Universal salt iodisation (USI) : 2010- Triferidine tablet (iron+folate+iodine)
2019		

## Policies and Strategies

# Strategic Linkage



**Sustainable Development Goals**

**SDG2: Zero Hunger**  
**SDG3: Good Health, Well being**

**The 20-year National Strategic Plan**

**Strategy 3: Human Capacity development and empowerment**

**The 20-year National Strategic Plan for Public Health**

**Health Promotion and Disease Prevention (PP Excellence)**

**DoH Strategic plan**

**Health Promotion throughout the life course**

# GLOBAL TARGETS 2025

To improve maternal, infant and young child nutrition



## Stunting

TARGET: 40% reduction in the number of children under-5 who are stunted



## Anaemia

TARGET: 50% reduction of anaemia in women of reproductive age



## Low birth weight

TARGET: 30% reduction in low birth weight



## Childhood overweight

TARGET: No increase in childhood overweight



## Breastfeeding

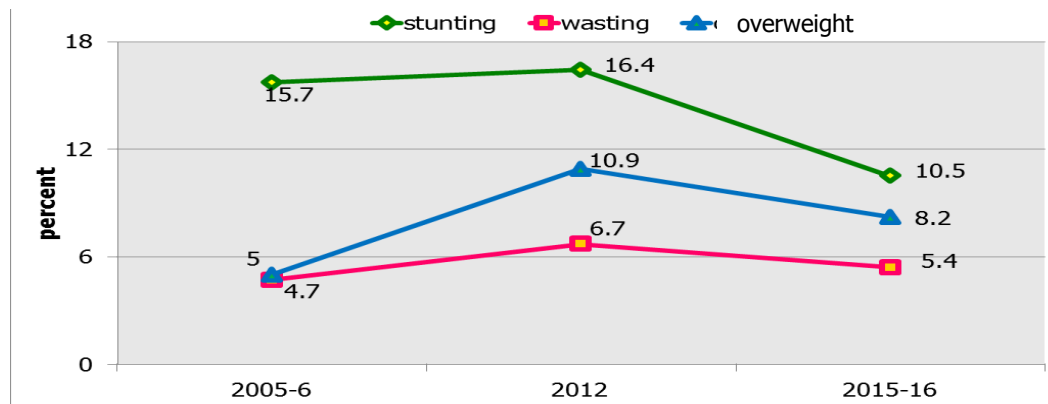
TARGET: Increase the rate of exclusive breastfeeding in the first 6 months up to at least 50%



## Wasting

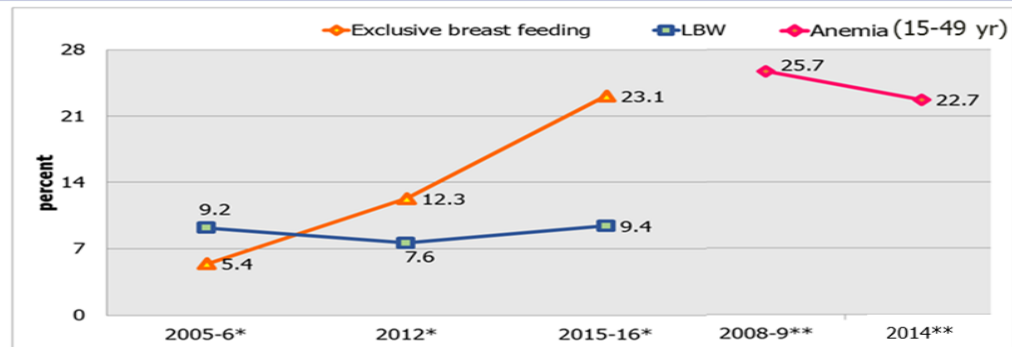
TARGET: Reduce and maintain childhood wasting to less than 5%

## Malnutrition among 0-5 yrs.



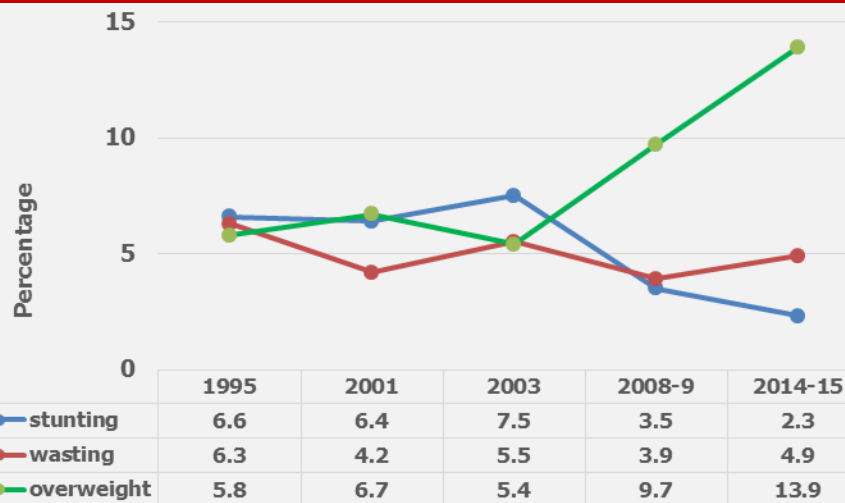
ข้อมูล: Thailand Multiple Indicator Cluster Survey (MICS3-2005-6, MICS4-2012 และ MICS5-2015-16), สำนักงานสถิติแห่งชาติ

## Exclusive breastfeeding 6 m., anemia in CBA women and LBW

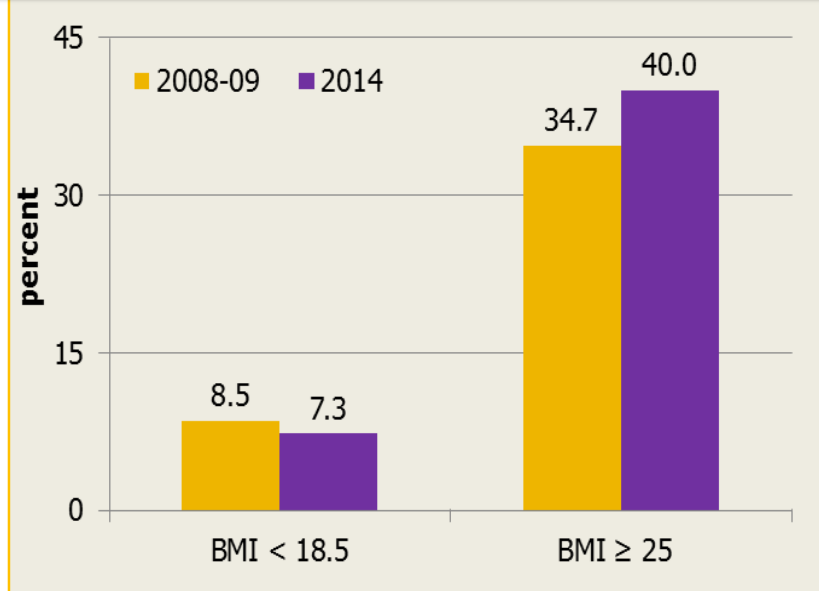


Source : \*Thailand Multiple Indicator Cluster Survey (MICS3-2006, MICS4-2012)  
\*\* National Health Exam Survey (NHES4-2008-9, NHES5-2014)

## Nutritional Status of school age children (6-14 yrs)



## Situation of BMI among Thai people 15-59 yrs.

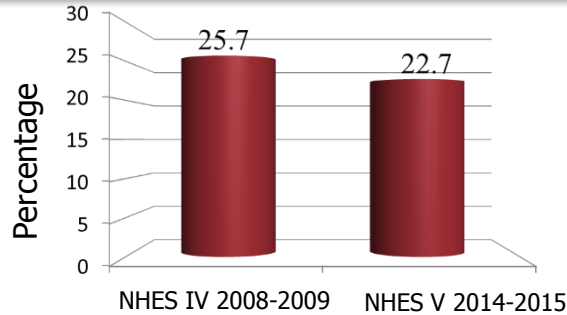


Source : National Health Exam Survey (NHES4-2008-9, NHES5-2014-15)

### Sources:

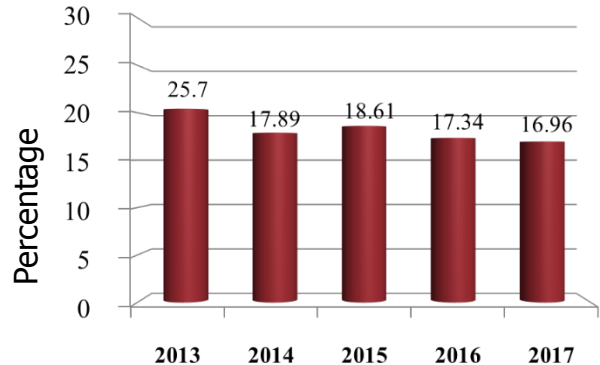
1. National Health Exam Survey (NHES2-1995, NHES4-2008-9, NHES5 20014-15)
2. Holistic Development of Thai Children Project, 2001
3. The Fifth National Nutrition Survey of Thailand, 2003

# Prevalence of anemia in reproductive age women



Source : Thai National Health Examination Survey, NHES IV and V

# Prevalence of anemia during Pregnancy

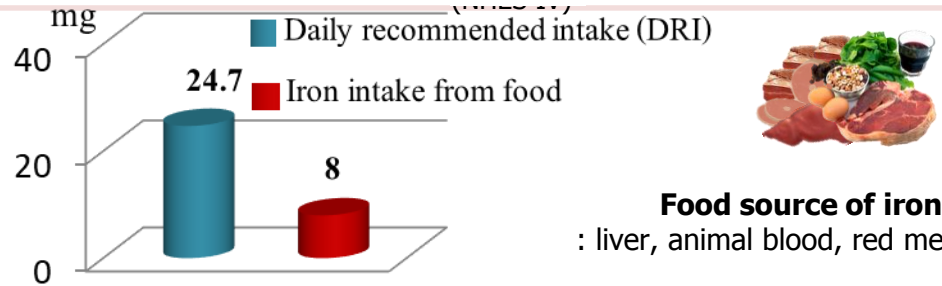


Source : Health Data center (HDC)  
Strategy and Planning Division, Ministry of Public Health

# Causes of anemia from nutritional deficiencies

## 1. Iron deficiency

### Iron intake from iron-rich food in reproductive age women

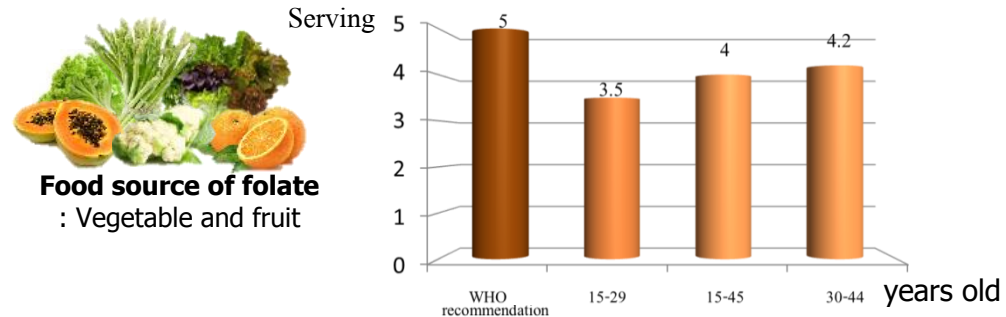


**Food source of iron**  
: liver, animal blood, red meat etc.

Source : Food consumption data of Thailand

## 2. Folate deficiency

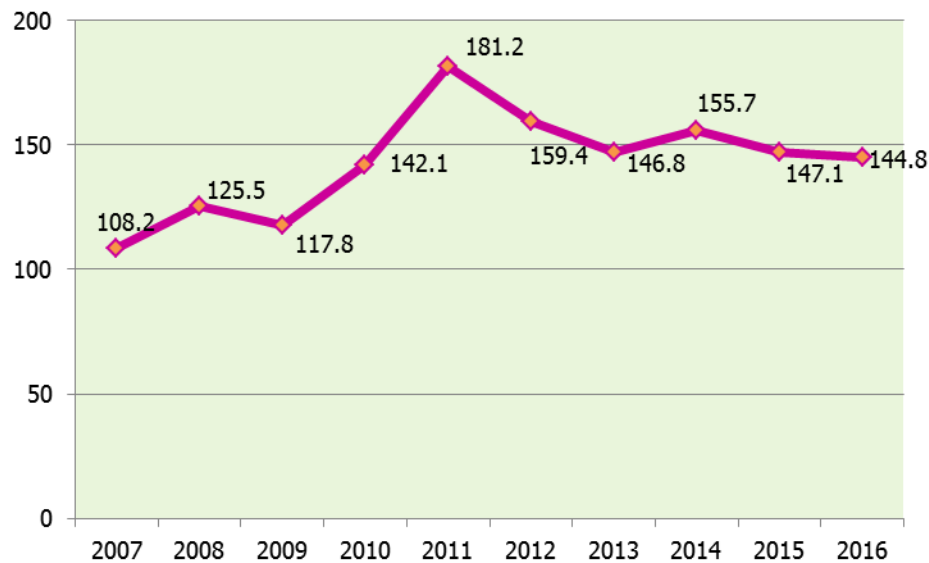
### Vegetable and fruit intake in reproductive age women



**Food source of folate**  
: Vegetable and fruit

Source : Thai National Health Examination Survey, NHES V

## Median urine iodine in pregnant women



## Median UI in 3-5y children and elderly and percentage of qualified iodized salt 2011-2016

Year	MUIC (µg/l)		%qualified Iodized salt		
	3-5 y	≥60 y	≥30ppm	20-40ppm	≥20ppm
2011	229.2	129.0	72.6	-	-
2012	212.6	108.3	-	60.3	84.6
2013	226.6	113.8	-	82.5	91.9
2014	234.6	111.3	-	83.5	91.5
2015	200.1	112.7	-	78.9	95.3
2016	199.2	105.0			

Source: Bureau of Nutrition

HH coverage of iodized salt in 2015 = 73.3% (MICS5)



# Background of Miracle of The First 1,000 Days of Life



Fewer births  
of Lower quality

To reduce  
problem

The 2<sup>nd</sup> National Reproductive Health  
Development Policy and Strategy (2017-2026)  
on the Promotion of Quality Birth and Growth

Consists of 4 sub-strategies

Maternal and Young Child group

1. Improving the relevant legislations, policies, and strategies.
2. Improving the health service system and establishing equal access to services
3. Improving the social welfare system.
4. Improving the information system and public communication

# Thai women red cheek project



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## Reproductive age ... Promote with iron and folate supplement



**Ferrous fumarate/folic acid**  
**(iron 60 mg. folic acid 2.8 mg.)**  
**Weekly dose**

## Promotion food consumption



**Adequately consume of**  
**iron-rich food**

**Adequately consume of folate**  
**rich in vegetable & fruit**



# Miracle of The First 1,000 days Project



The first 1,000 days of life



Fetus



Newborn to  
2 years

Target group

Pregnant  
(270 Days)

After birth to 6 months  
(180 Days)

6 months to 2 years  
(550 Days)

Local Authority organization and networks work together on investment, create civil-state model of participation through District Health Board to integrate health and increase number of social activities

Work together on Nutrition,  
Hugging, Playing, Story-Telling,  
Sleep and Oral Health

ANC, WCC, quality of  
family throughout  
mechanism of PCC and  
MCH board

- District Health Board
- Social Measurement

▪ Optimum Growth  
▪ Well-Development  
based on age

Monitoring : Visited home of pregnant and after birth to 2 years to follow food consumption, counseling on complementary food, promotion of food sanitation, oral health, physical activity and sleeping once a month per family.  
by Team of PCC/Health Promoting Hospital/ village health Volunteer .

# Activities : Miracle of The First 1,000 days of Life



The creation phase of brain, organs and body system of the infants

- Attend antenatal care (ANC) before 12 weeks GA, increase ANC quality to 5 visits
- Provide counselling on physical and mental health
- Practice food preparation skill on pregnant woman and adjust food habit behavior
- Provide free iodine, iron and folic tablet throughout pregnancy period
- Provide free 90 boxes of milk for 90 days in the 3rd trimester



In this phase, body and brain grow quickly

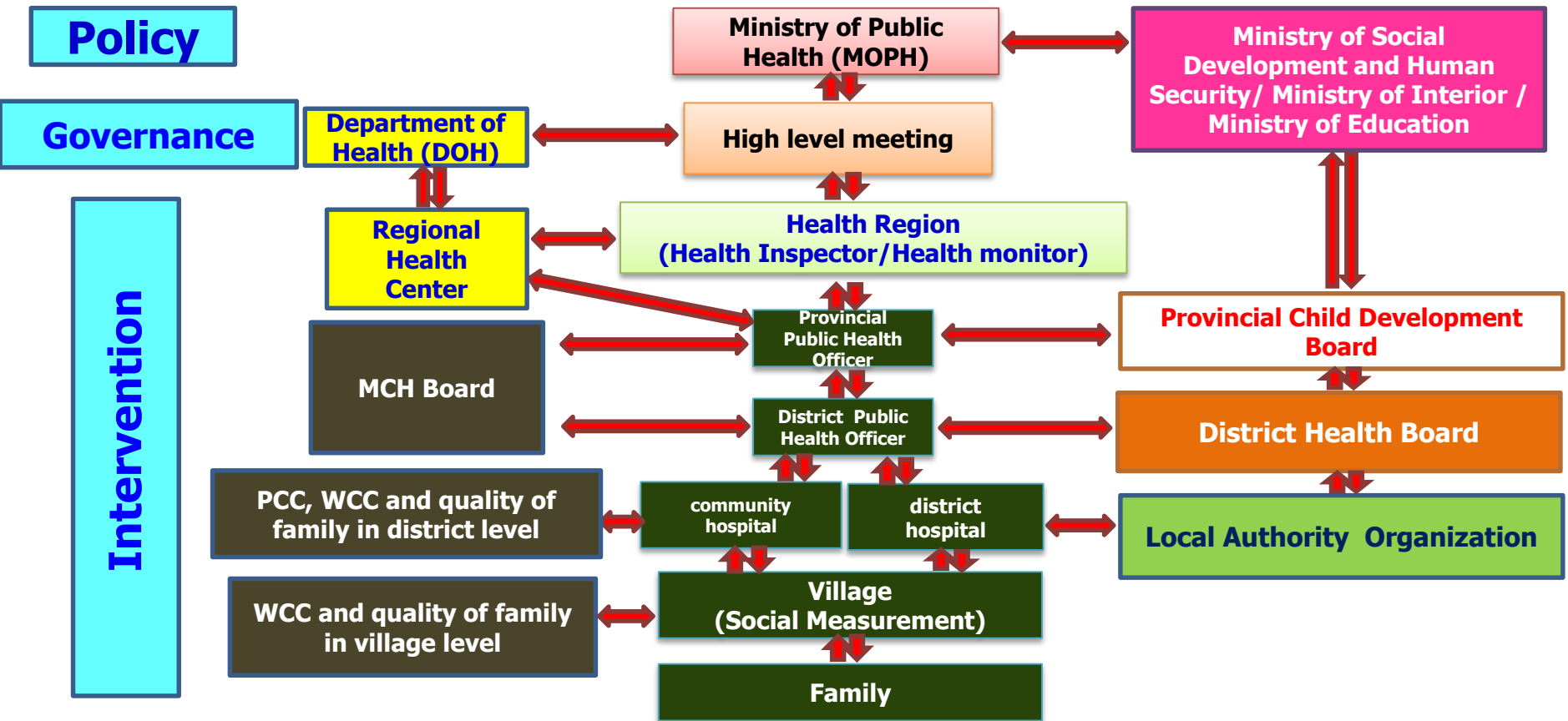
- Exclusive breastfeeding
- Breastfeeding corner in workplace both in private and public sector
- Monitor length and weight every 3 months
- Nutrition counselling for lactation women and nurture practice their children
- Provide free 90 boxes of milk for 90 days



Path to Smart Kid, gain optimum growth and good development based on their age

- Monitor height and weight every 3 months and perform developmental screening
- Promote playing, story-telling, appropriated sleeping
- Provide knowledge practice on complementary feeding according to age
- Educate oral health, provide the first toothbrush
- Provide weekly iron supplement
- Provide free 1 egg per day to 1 year old and above children, and also 1 milk box per day

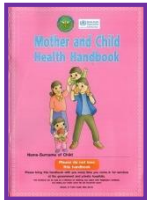
# Framework: Miracle of The First 1,000 days



# Nutrition Literacy in all age groups

## Maternal and Young Child

- \* Breast Feeding / IYCF / Growth Monitoring / Milk Code



- \* Nutrition surveillance among pregnancy and 0-18 years in communities
- \* Control of Micronutrients Deficiency (Iodine, Iron, Folate)



## School age Children and Adolescent



- \* Healthy Food Healthy Kids
- \* Health Promoting School
- \* School Milk /School Lunch

กระทรวงสาธารณสุข



## Working age group and Elderly



- \* Health promoting hospital
- \* Health leader (Eat, Physical activity, Sleep, Teeth)
- \* Thai people flat belly

- \* Long term Care to be Active and Healthy Ageing with concept for **4 Smart**: Smart Eat, Smart Brain, Smart Walk and Smart Sleep
- \* Food based dietary guideline

# Creating Healthy Environment

## Milk Code Act



**Breast feeding corner**



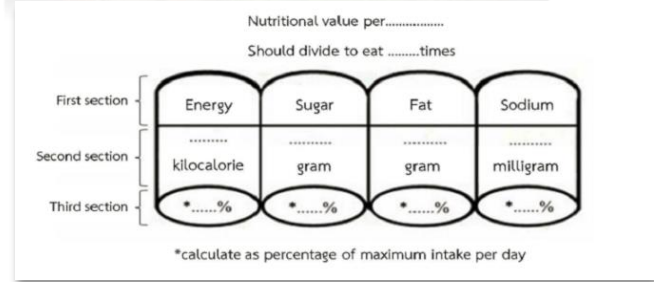
**Agriculture for School Lunch**



**Sugar-Sweetened beverages Tax**



**Healthier Logo**



**Guideline Daily Amount : GDA**



**Thank you for your attention**