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03-05 OCTOBER 2022



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Maternal Health and Nutrition in the Philippines: What have we learned?



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Epidemiology Session

Crowne Plaza Galleria Manila

Time of presentation, Date of presentation

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OUTLINE:

- Background
 - Importance of Women's Nutrition
 - Nutrition throughout the lifecycle
- Nutritional Challenges of Filipino Women (ENNS 2018-2019)
 - Under nutrition & overweight/obesity
 - Anemia
 - Iodine Status
 - Top food sources of energy and nutrients and inadequacy in the diet of women
- Existing programs for maternal health and nutrition
- DOST-FNRI R&D and S&T services to address maternal malnutrition

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Women's nutrition is the major predictor of a child's health and well-being, especially during pregnancy and lactation.

UNICEF, 2021; Marshall, N. E., et al. 2022; Koletzko, B., et al. 2019

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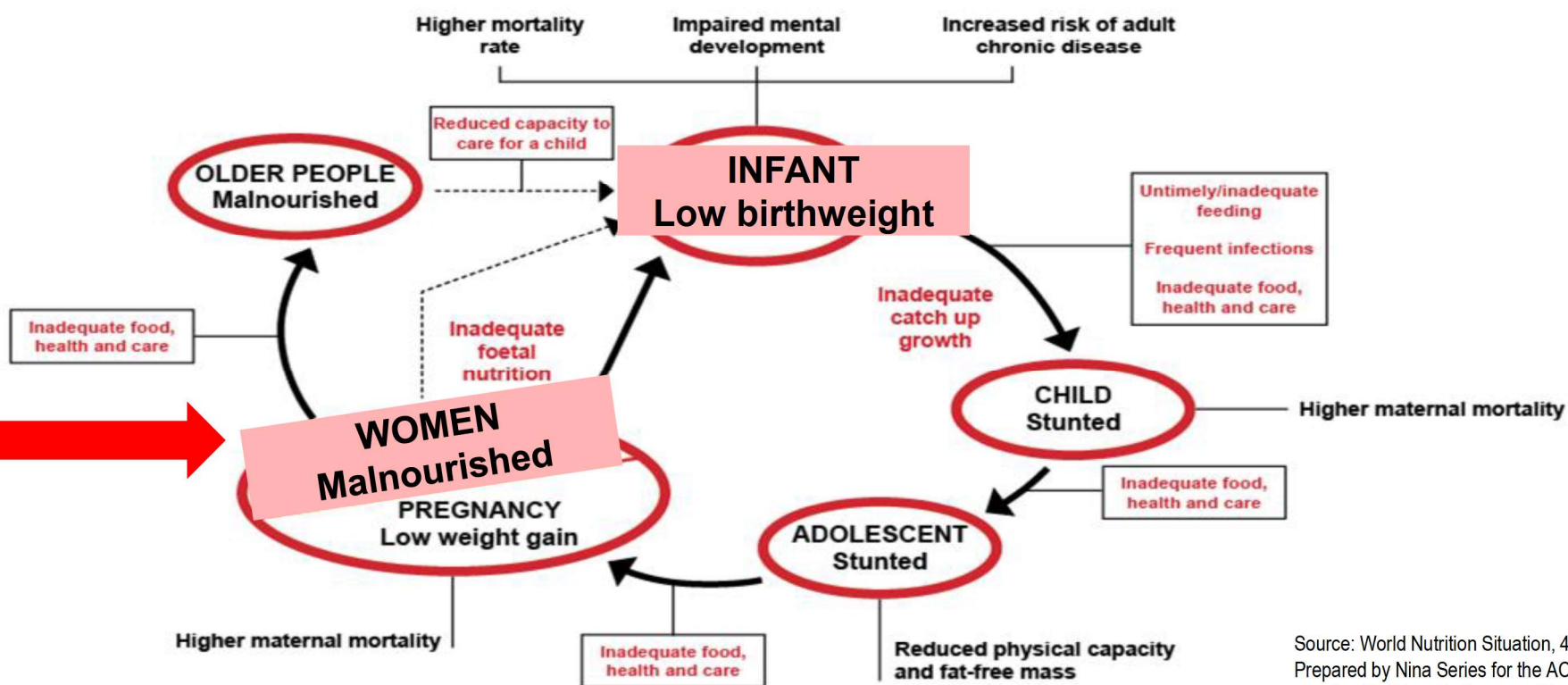
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NUTRITION THROUGHOUT THE LIFE CYCLE



Source: World Nutrition Situation, 4th Report
Prepared by Nina Series for the ACC/SCN-appointed Commission on
the Nutrition Challenges of the 21st Century

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Global Nutritional Status of Women of Reproductive Age (WRA) 15-49 years old



Chronic Energy Deficiency (CED)	9.7% ¹
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Overweight/obese	39.2% ¹
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Anemia	32.8% ¹
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Vitamin A Deficiency (VAD) Pregnant Women	7.8% ²
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¹ 2018 Global Nutrition Report

² WHO (2009) Global prevalence of vitamin A deficiency in populations at risk
1995-2005. *WHO Global Database on Vitamin A Deficiency*

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2018 -2018 Expanded National Nutrition Survey (ENNS)

RESULTS



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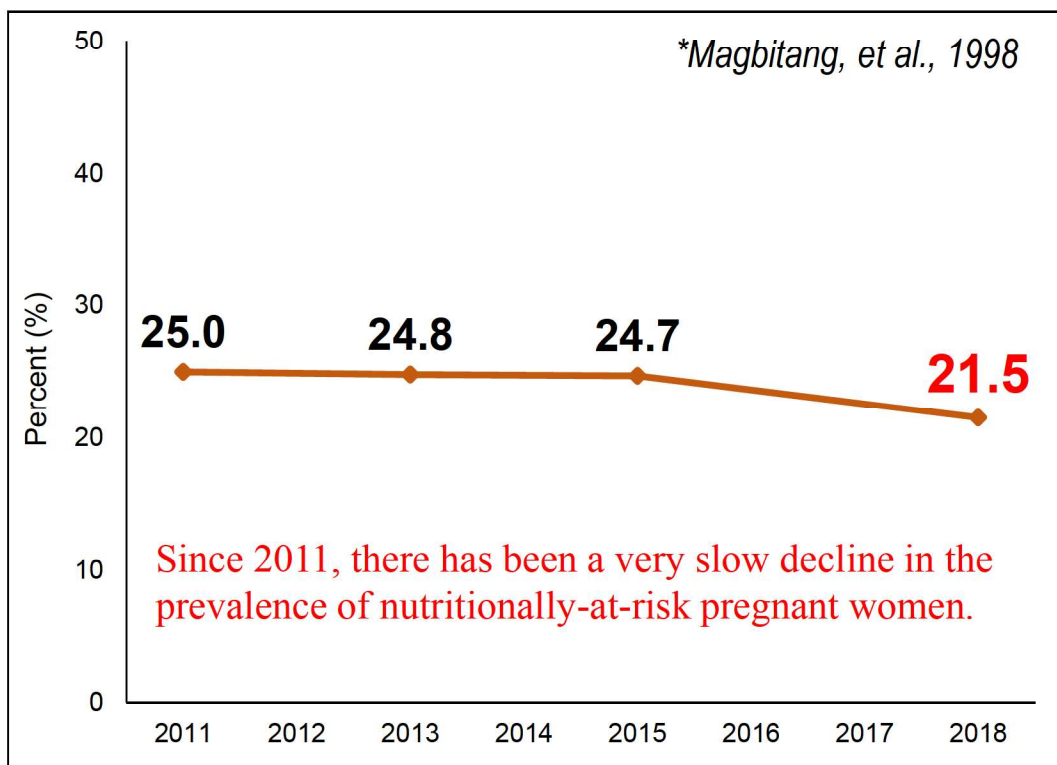
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Trend in the prevalence of **nutritionally-at-risk*** pregnant women: Philippines, 2011 to 2018-2019



TWO in **10**

Pregnant women were

Nutritionally-at-risk



... and those that have short stature are at risk of maternal deaths and are likely to give birth to low birth weight infants.

DOST-FNRI (2022) *Expanded National Nutrition Survey 2018-2019*

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Prevalence of **nutritionally-at-risk*** pregnant women by age group and working status: Philippines, 2018 - 2019

AGE GROUP*

31.8%

<20 YEARS OLD



20.2%

20 YO & ABOVE



*significant at $p < 0.05$

WORKING STATUS*



23.5%

NOT WORKING



13.7%

WORKING

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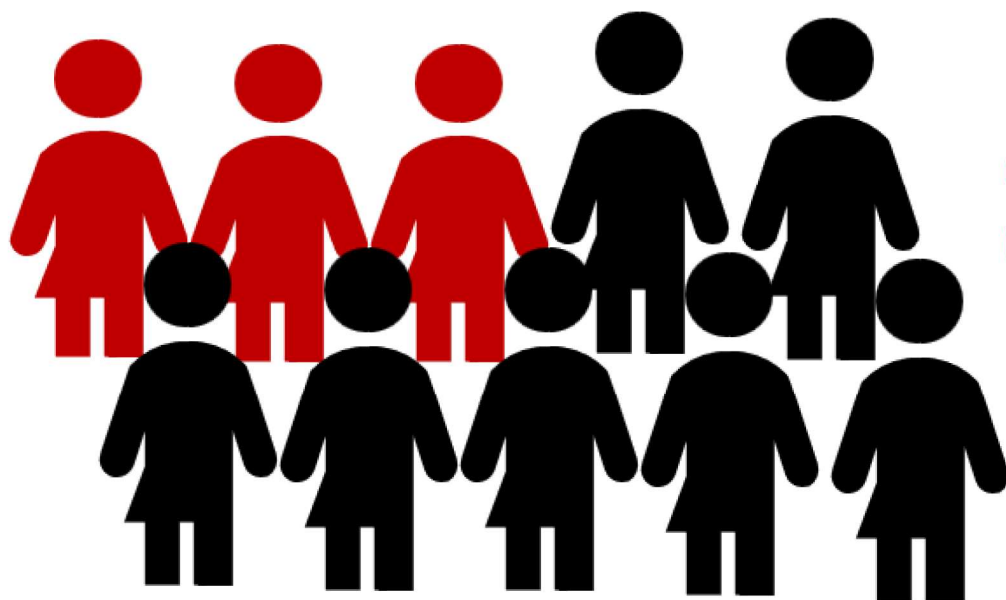
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Fetal growth restriction is one of the causes of **stunting** early in life...



3 in every 10

**Under-five years old children
stunted**

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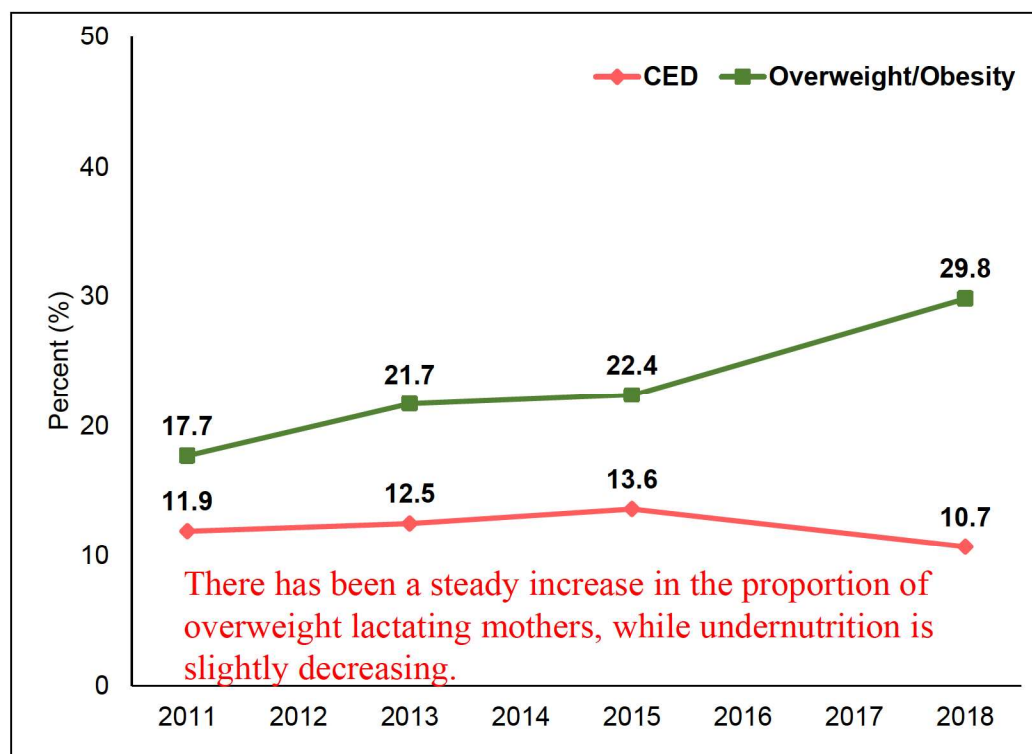
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Trends in the prevalence of **malnutrition among lactating mothers**: Philippines, 2011 to 2018-2019



TWO in **10**
lactating mothers were
Overweight/obese

ONE in **10**
lactating mothers were
Chronic Energy Deficient



DOST-FNRI (2022) *Expanded National Nutrition Survey 2018-2019*

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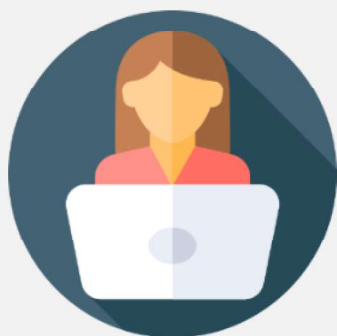
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Prevalence of **chronic energy deficiency** among lactating mothers by working status: Philippines, 2018 - 2019

WORKING STATUS*



6.3%
WORKING



11.6%
NOT WORKING

*significant at $p < 0.05$

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Prevalence of **overweight/obesity** among lactating mothers by age group, working status, and place of residence: Philippines, 2018 - 2019

AGE GROUP*

12.5%
<20 YEARS OLD



30.9%
20 YO & ABOVE



*significant at $p < 0.05$

WORKING STATUS*



39.8%
WORKING



27.8%
NOT WORKING

PLACE OF RESIDENCE*



34.7%
URBAN



26.6%
RURAL

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Anemia and Iodine Status of pregnant women and lactating mothers



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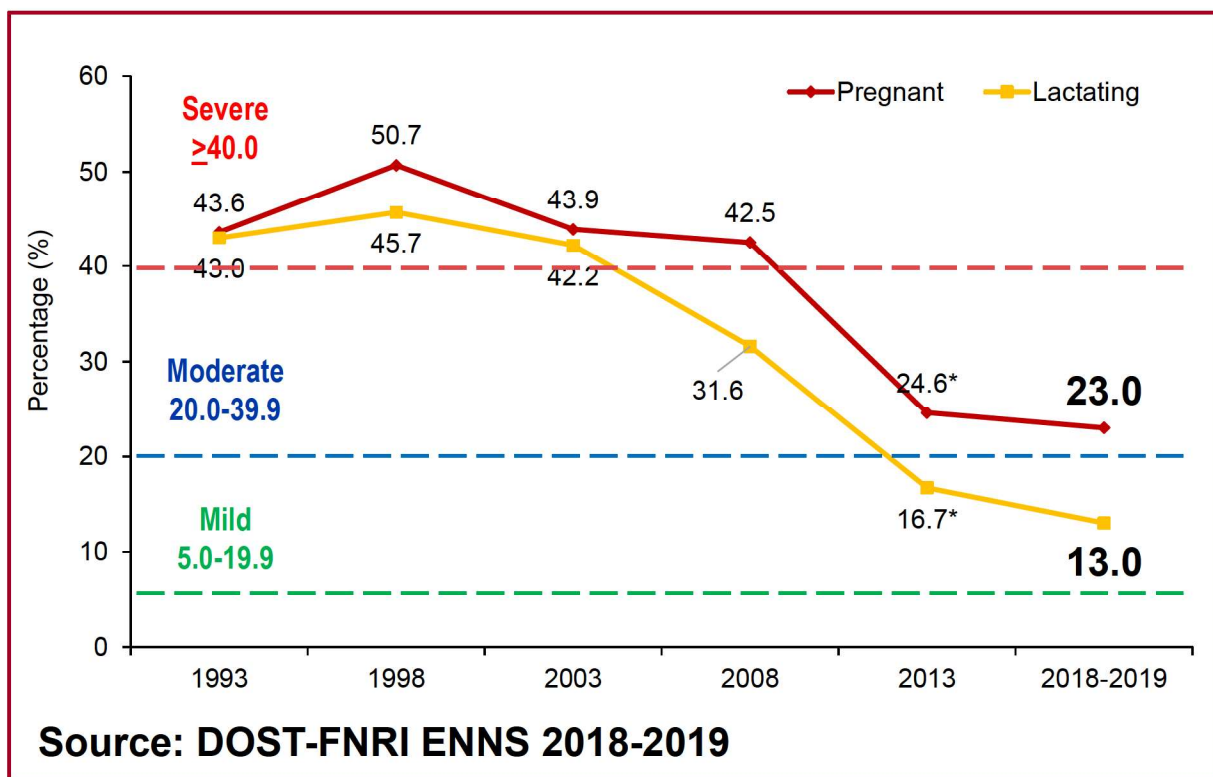
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A declining trends in the prevalence of **anemia among Filipino pregnant women and lactating mothers**



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Median UIC and percent UI level of $<50\mu\text{g/L}$ among pregnant women and lactating mothers: Philippines, 2018-2019



Pregnant Women



**Lactating
Mothers**

Median Urinary Iodine Concentration (UIC) ($\mu\text{g/dL}$)	Proportion with Urinary Iodine level of $<50\mu\text{g/L}$ (%)
122	21.1
99	22.0

DOST-FNRI (2022) *Expanded National Nutrition Survey 2018-2019*

Iodine deficiency still exists among lactating and pregnant women as both groups had insufficient iodine intake (99 $\mu\text{g/L}$ and 122 $\mu\text{g/L}$, respectively) and more than 20% had UI level of $<50\mu\text{g/L}$.

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Pregnant women in rural areas were the most affected by **iodine deficiency**

PLACE OF RESIDENCE

130 $\mu\text{g/L}$ (17.0%)
URBAN



116 $\mu\text{g/L}$ (23.9%)

RURAL



DOST-FNRI (2022) *Expanded National Nutrition Survey 2018-2019*

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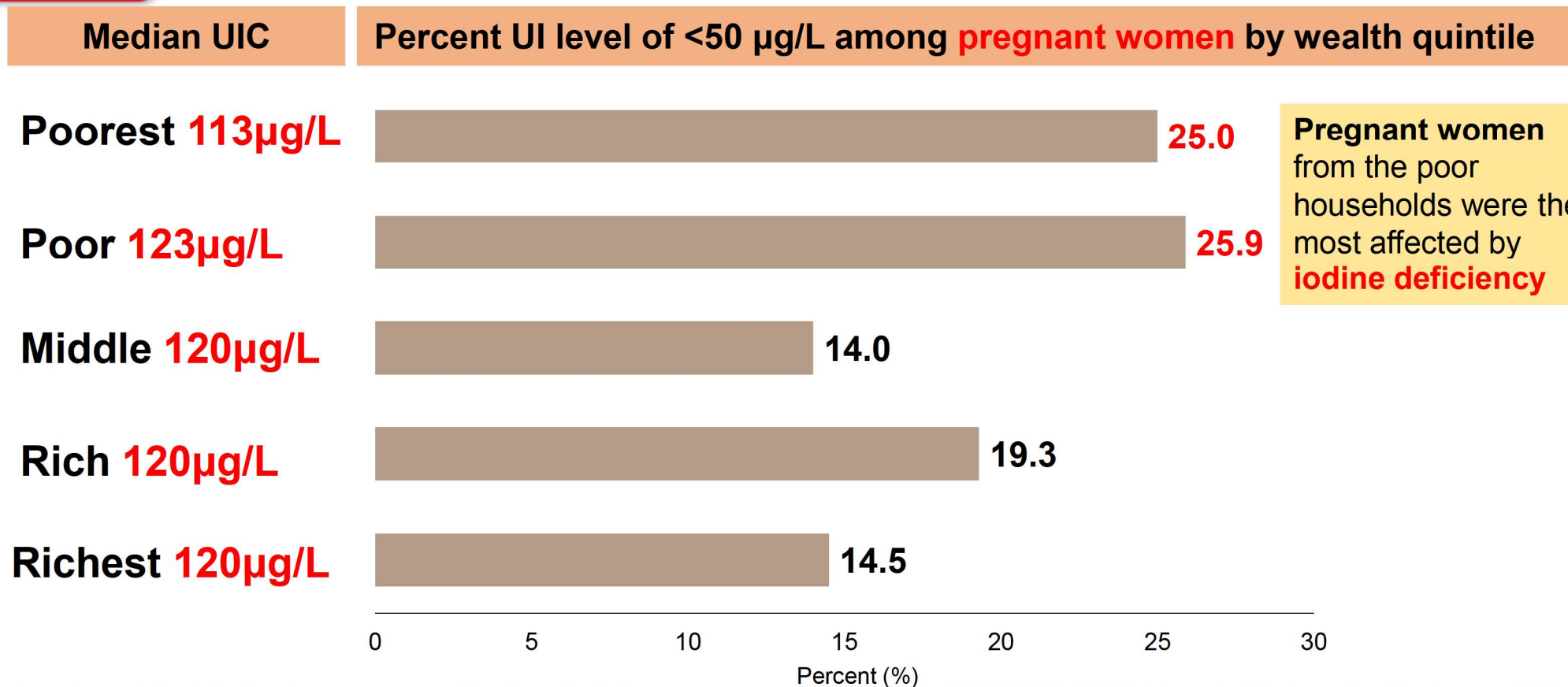


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Pregnant women from the poor households were the most affected by iodine deficiency

Values in **red font** indicate presence of Iodine Deficiency

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Lactating mothers in rural areas were the most affected by **iodine deficiency**

PLACE OF RESIDENCE

110µg/L (19.9%)

URBAN



92 µg/L (23.5%)

RURAL



DOST-FNRI (2022) Expanded National Nutrition Survey 2018-2019

Values in **red font** indicate presence of Iodine Deficiency

Maternal Health and Nutrition in the Philippines: What have we learned?



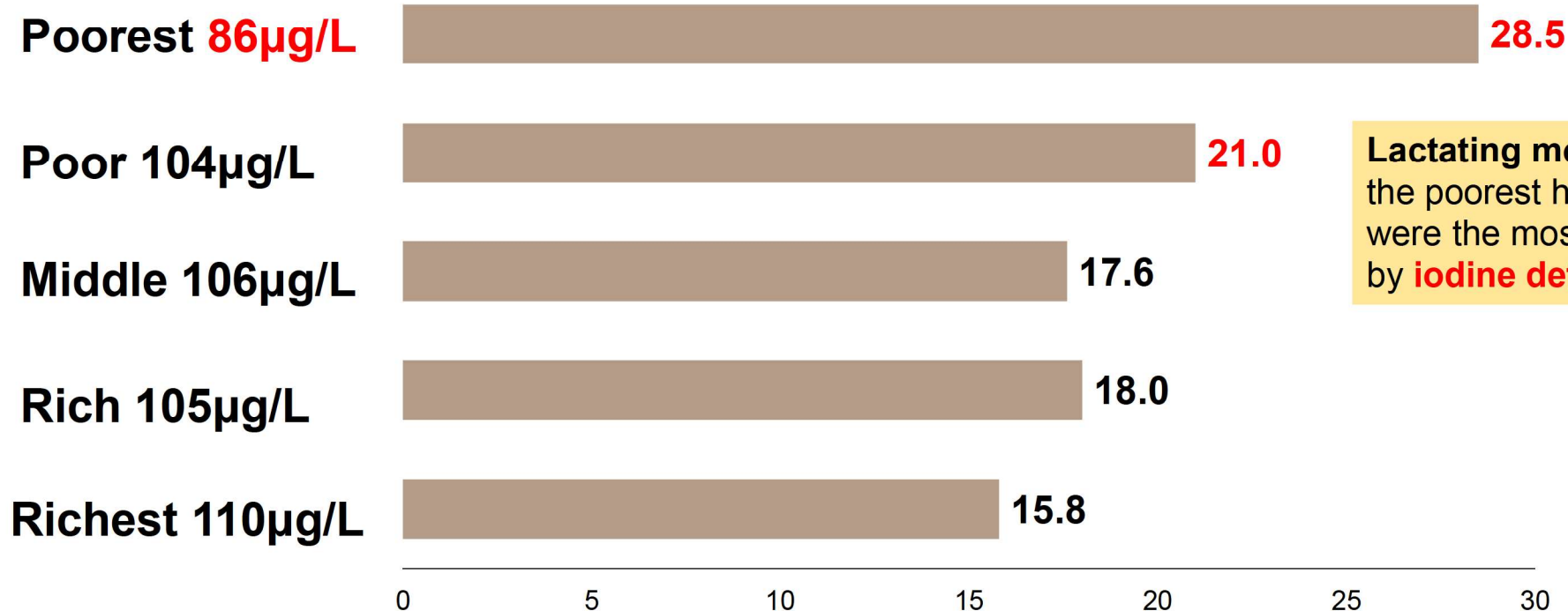
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Median UIC and percent UI level of <50 $\mu\text{g/L}$ among **lactating mothers by wealth quintile: Philippines, 2018-2019**



Lactating mothers from the poorest households were the most affected by **iodine deficiency**

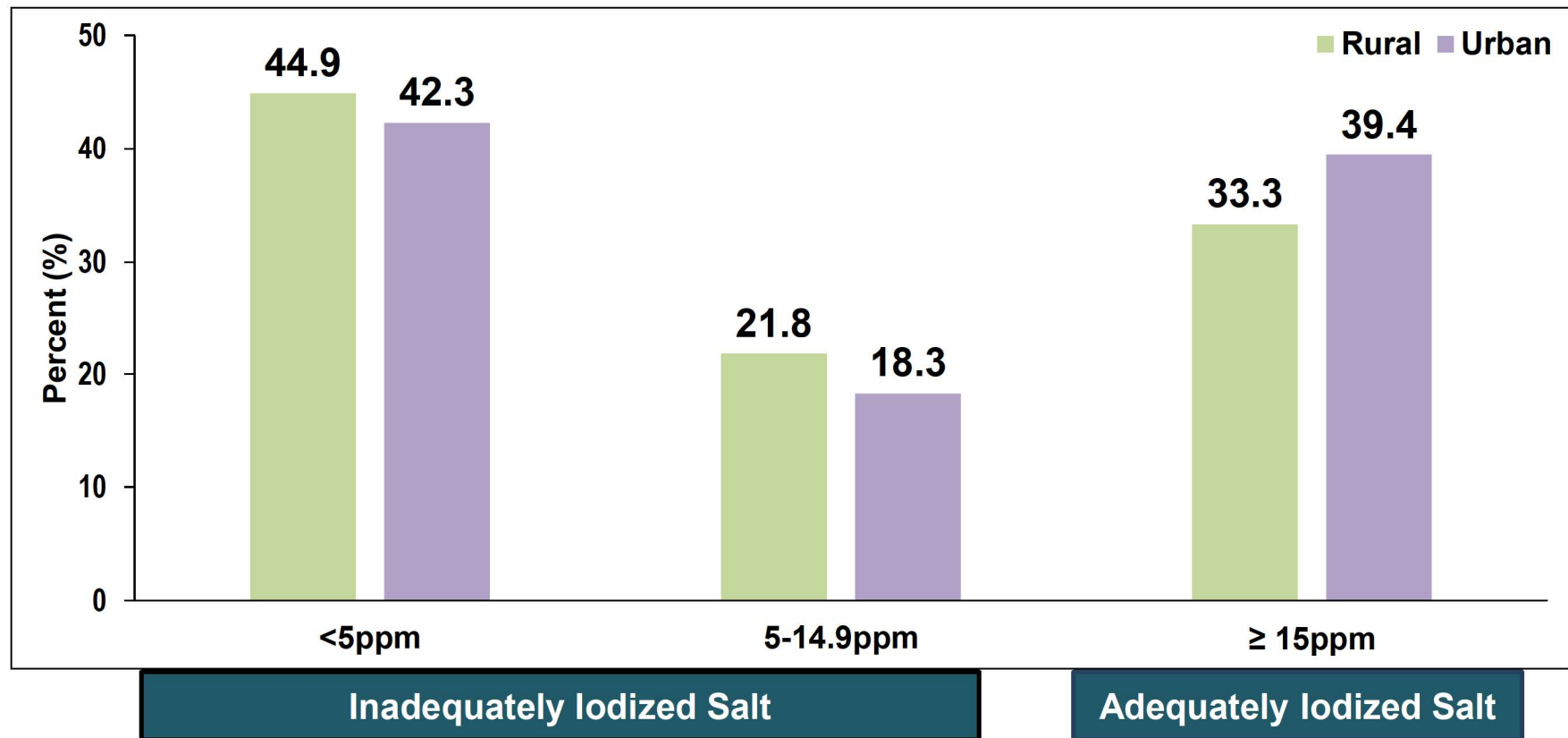
Values in **red font** indicate presence of Iodine Deficiency

Percent (%)

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Distribution of Households by WYD test results for salt by place of residence: Philippines, 2018-2019





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Top food sources of energy and nutrients of pregnant & lactating women





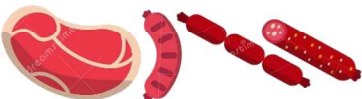


Maternal Health and Nutrition in the Philippines: What have we learned?

Top 5 food sources of energy of Filipino pregnant women and lactating mothers*

		Pregnant women		Lactating mothers	
Food Item		Mean Intake (g)	Percent Contribution	Mean Intake (g)	Percent Contribution
1	Rice and Rice Products 	795.4	52.6	978.6	59.5
2	Meat and Products 	124.1	8.2	113.1	6.9
3	Bread, Crackers, Biscuits & Other Bakery Products 	96.8	6.4	90.8	5.6
4	Pasta and Noodles 	56.3	3.7	64.8	4.0
5	Fish and Products 	49.7	3.3	50.8	3.1




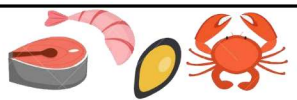

* DOST-FNRI 2018-2019 Expanded National Nutrition Survey

Top 5 food sources of protein of Filipino pregnant women and lactating mothers*

		Pregnant women		Lactating mothers	
Food Item		Mean Intake (g)	Percent Contribution	Mean Intake (g)	Percent Contribution
1 Rice and Rice Products		16.5	32.7	20.1	38.5
2 Fish and Products		8.9	17.6	9.2	17.6
3 Meat and Products		6.9	13.8	6.7	12.8
4 Poultry and Products		4.5	8.9	6.7	12.8
5 Bread, Crackers, Biscuits and other Bakery Products		2.8	5.6	2.7	5.1






* DOST-FNRI 2018-2019 Expanded National Nutrition Survey

Top 5 food sources of **iron** of Filipino **pregnant women** and **lactating mothers***

		Pregnant women		Lactating mothers	
Food Item		Mean Intake (g)	Percent Contribution	Mean Intake (g)	Percent Contribution
1 Rice and Rice Products		2.2	28.4	2.7	35.4
2 Meat and Products		1.1	13.3	0.9	11.8
3 Bread, Crackers, Biscuits and other Bakery Products		0.8	10.3	0.8	9.9
4 Fish and Products		0.7	8.2	0.7	8.9
5 Sugar-sweetened Beverages		0.5	5.9	0.4	4.9






* DOST-FNRI 2018-2019 Expanded National Nutrition Survey

Top 5 food sources of vitamin A of Filipino pregnant women*

Food Item		Mean Intake (mcg RE)	Percent Contribution
1	Meat and Products 	115.6	28.7
2	Fish and Products 	61.1	15.2
3	Milk and Other Dairy Products 	57.1	14.2
4	Dark Green Leafy Vegetables 	50.6	12.6
5	Poultry and Products 	32.9	8.2


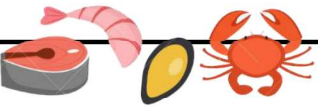

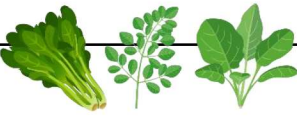

* DOST-FNRI 2018-2019 Expanded National Nutrition Survey

Top 5 food sources of **vitamin A** of Filipino **lactating mothers***

Food Item		Mean Intake (mcg RE)	Percent Contribution
1	Meat and Products 	99.5	24.7
2	Dark Green Leafy Vegetables 	65.7	16.3
3	Poultry and Products 	64.5	16.0
4	Fish and Products 	59.4	14.8
5	Milk and Other Dairy Products 	32.2	8.0


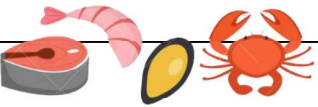


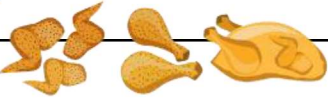
* DOST-FNRI 2018-2019 Expanded National Nutrition Survey

Top 5 food sources of calcium of Filipino pregnant women*

Food Item	Mean Intake (mg)	Percent Contribution
1 Milk and Other Products 	85.8	24.1
2 Fish and Products 	69.7	19.6
3 Rice and Rice Products 	60.8	17.1
4 Dark Green Leafy Vegetable 	16.0	4.5
5 Bread, Crackers, Biscuits and 	13.8	3.9



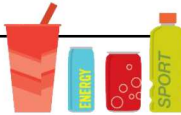
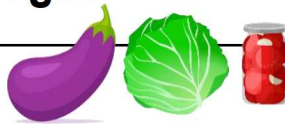

* DOST-FNRI 2018-2019 Expanded National Nutrition Survey

Top 5 food sources of calcium of Filipino lactating mothers*

Food Item	Mean Intake (mg)	Percent Contribution
1 Rice and Rice Products 	73.8	22.9
2 Fish and Products 	72.4	22.4
3 Milk and Other Products 	43.9	13.6
4 Dark Green Leafy Vegetable 	21.2	6.6
5 Poultry and Products 	13.1	4.0



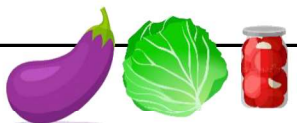
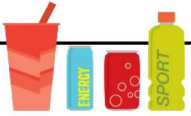
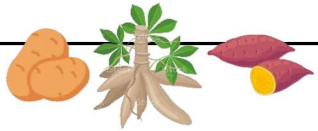
* DOST-FNRI 2018-2019 Expanded National Nutrition Survey

Top 5 food sources of vitamin C of Filipino pregnant women*

	Food Item	Mean Intake (mg)	Percent Contribution
1	Fruits 	7.5	32.2
2	Dark Green Leafy Vegetables 	5.0	21.3
3	Sugar-sweetened Beverages 	2.6	11.0
4	Other Vegetables 	2.3	10.0
5	Milk and Other Products 	2.0	8.6

* DOST-FNRI 2018-2019 Expanded National Nutrition Survey

Top 5 food sources of vitamin C of Filipino lactating mothers*

Food Item	Mean Intake (mg)	Percent Contribution
1 Dark Green Leafy Vegetables 	6.4	33.4
2 Fruits 	4.2	21.7
3 Other Vegetables 	2.9	15.0
4 Sugar-sweetened Beverages 	1.8	9.4
5 Starchy Roots and Tubers 	1.7	8.7

* DOST-FNRI 2018-2019 Expanded National Nutrition Survey



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Energy and Nutrient Adequacy



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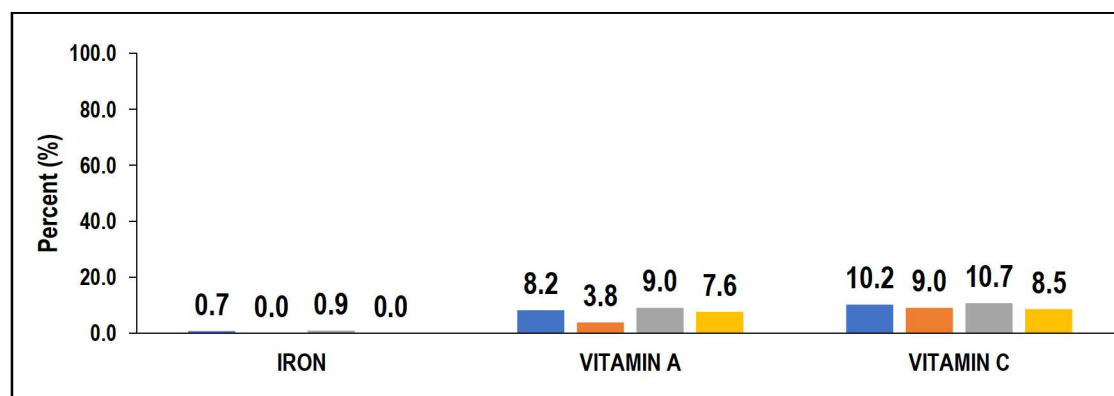
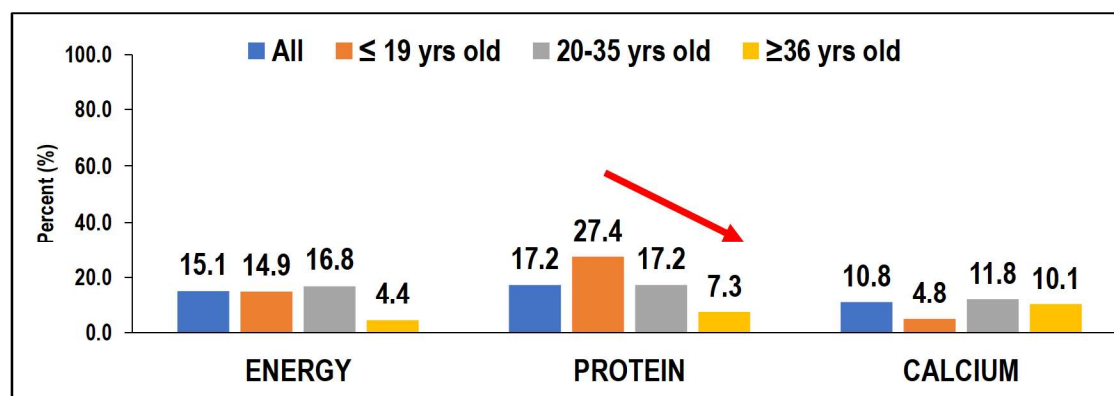
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Proportion of **pregnant women**, meeting the Recommended Energy Intake and Estimated Average Requirement for nutrients, by age group: Philippines, 2018-2019



- Only **1 in 10** pregnant women met energy adequacy.
- The proportion of pregnant women meeting the recommended **protein** is **lower among older** than in younger women.
- **High nutritional inadequacy** (iron, calcium, vitamin A, and vitamin C) is still a problem.

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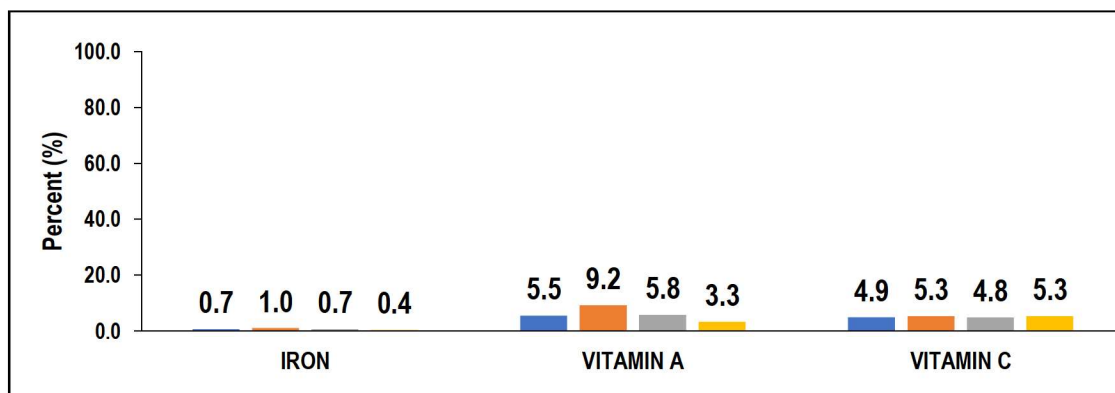
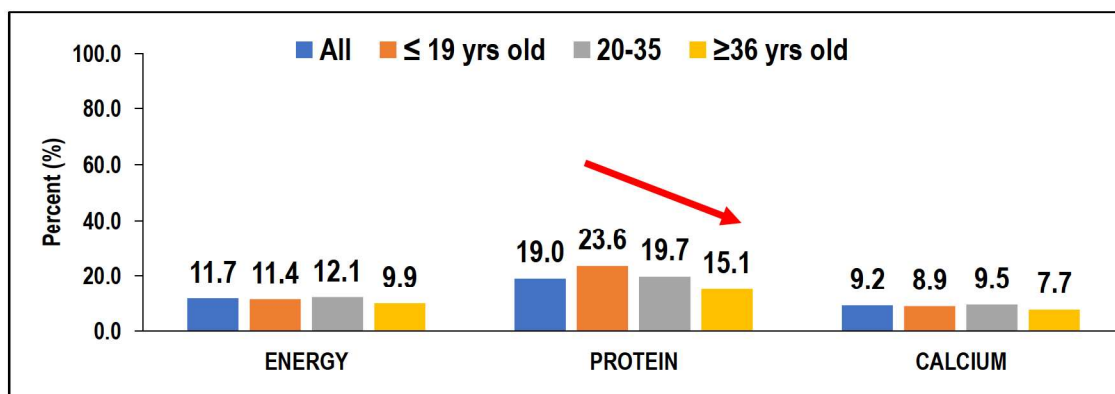
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Proportion of **lactating mothers**, meeting the Recommended Energy Intake and Estimated Average Requirement for nutrients, by age group: Philippines, 2018-2019



- Only **1 in 10** breastfeeding mothers met energy adequacy.
- The proportion of lactating mothers meeting the recommended **protein**, and **vitamin A** intake is lower among older than in younger women.
- **High nutritional inadequacy** (iron, calcium, vitamin A, and vitamin C) is still a problem.

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What have we learned?

**Existing maternal health and
nutrition policies & programs
with promising impacts**



Integrated Maternal, Neonatal and Child Health and Nutrition (MNCHN) Strategy

Administrative Order (AO) No. 2008-0029 on Implementing Health Reforms for Rapid Reduction of Maternal and Neonatal Mortality

- To address the high prevalence of nutritionally-at-risk pregnant women and chronically deficient lactating women through key health reforms for the rapid reduction of maternal and neonatal mortality.
- Adopted a unified strategic framework for maternal and newborn, maximizing the delivery of service packages, and ensuring a continuum of care across the life-stages.
- **This may have significantly contributed to the decline in maternal anemia in the last decade.**





Micronutrient Supplementation

Administrative Order (AO) No. 2010-0010

Revised Policy on Micronutrient Supplementation

- The Philippines is one of the few is exemplar countries in anemia reduction.
- This can be attributed to the **MNCHN and the Revised policy on Micronutrient Supplementation** which specified the right dosage, timing, frequency and duration of supplementation across physiologic groups: **pregnant and lactating women and women of reproductive age (15-49 years old).**
- Priority is also given to population groups and individuals in special situations or with particular conditions during emergencies, those residing in areas endemic with malaria and schistosomiasis, and individuals clinically diagnosed with micronutrient deficiencies.





Micronutrient Supplementation

DO 59, S. 2017

Weekly Iron Folic Acid (WIFA) supplementation

- Anemia is also a public health problem among adolescents because of their menstruation, rapid growth, increased iron demands
- This was based on the 2013 NNS results that 1 in every 10 adolescents aged 13-19 years old was anemic, thus the policy was issued in 2017.



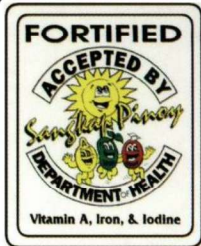
Iron and folic acid supplementation for female adolescent learners in public high schools implemented by DepEd in partnership with DOH.



Food Fortification

Republic Act No. 8976

Philippine Food Fortification Act of 2000



Mandatory fortification - *staple foods such as rice with iron, flour, refined sugar, and cooking oil with vitamin , salt with iodine.*

Voluntary fortification - *processed foods i.e.,noodles, snack foods*

- ***Food fortification programs are likely to have been instrumental in reducing maternal anemia as there was a significant decline of anemia prevalence among Filipino pregnant women between 1998 and 2003, from 50.7% to 43.9%, a few years after the food fortification laws went in to effect.***
- ***However, rice fortification with rice has not yet taken off at the national level due to various considerations from multiple stakeholders. Thus, the focus of rice fortification has been on social safety net programs e.g feeding program, food assistance, food aid during emergency, among others)***



Republic Act No. 11148

Kalusugan at Nutrisyon ng Mag-Nanay Act of 2018



- The RA 11148 ensures the improvement of nutritional status and address malnutrition problems among infants and young children, adolescent females, pregnant, and lactating women.
- This has been design to consistently provide of health and nutrition services needed for the first 1000 days of life, including prenatal check-ups, immunization of pregnant women and children, and dietary supplementation programs for target groups among others.
- The coming years will indicate if the First 1000 Days program, implemented at the national and local government levels, has impacted in improving maternal health and nutrition.



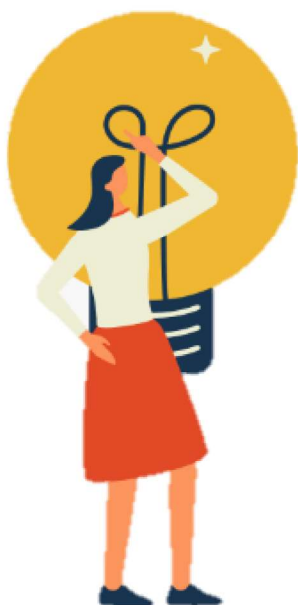
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KEEP USING DOST-FNRI's R&D and S&T services to address maternal malnutrition



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DOST-FNRI's R&D undertakings

Phase 1: **Project on Supporting Adolescent Growth in the Philippines (Project SAGIP)**

- **Project SAGIP** is designed to have a **160-school day nutrition intervention program** to improve the nutritional status of adolescents 10 to 14 years old.

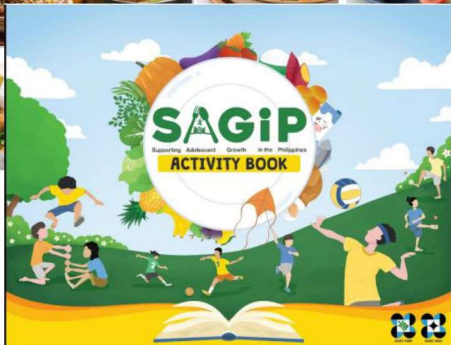
With IEC materials developed :

- ***SAGIP Activity Book***
- ***SAGIP Student Planner***
- ***SAGIP User Manual***
- ***Exciteen Recipe Book***

SAGIP Activity Book and SAGIP Student Planner used game-inspired challenges as a way to disseminate fun facts about nutrition, food safety, and physical activity

- ***Exciteen Recipe Book*** showcases a collection of low cost, adolescent-friendly recipes that can be cooked at home or in school

SAGiP
Supporting Adolescent Growth in the Philippines





DOST-FNRI R&D undertakings

Phase 2: **Project on Supporting Adolescent Growth in the Philippines (Project SAGIP): A Pilot Study in Marikina City**



- In collaboration with DOST-NCR, and Marikina City 2nd District Rep. Stella Luz Quimbo, the DOST-FNRI is implementing the SAGIP Pilot Test in Marikina City among school-age children 10 to 14 years old.
- This study may contribute to addressing some of the research gaps that are necessary to support the creation of local intervention programs and policies focused on improving adolescent health and nutrition.





DOST-FNRI's S&T Products and Tools

Production and Shelf-Life Study of MNERK and MGM for Pregnant and Lactating Mothers



Multi-nutrient Growth Mix
(MGM-15)



Multi-Nutrient Extruded
Rice Kernel
(MNERK-11)

- DOST-FNRI developed a multi-nutrient growth mix (MGM) powder that can be easily added to any food and beverage, and a multi-nutrient extruded rice kernel (MNERK) which can be added to ordinary rice to produce enriched rice.
- These food products may help meet the nutrient requirements of pregnant and lactating women.
- Pilot-scale production of MNERK-11 and MGM15 with significant amounts of vitamins and minerals is technically feasible.
- The developed products were found to be acceptable and safe for human consumption even after 6 months of storage.



DOST-FNRI

DOST-FNRI's S&T Products and Tools



- ***Iron Rice Premix (IRP)*** is a grain-like kernel made from a blend of rice flour and iron using hot extrusion technology. IRP contains a minimum of 400mg iron per 100g of premix
- ***Iron Fortified Rice (IFR)*** is an enriched rice made by blending IRP with ordinary rice at a ratio of 1:200 (premix to ordinary rice).
- One day intake of 4 cups of cooked IFR will meet more than 40% of the iron requirement of an adult.

**Iron Fortified Rice &
Iron Rice Premix**



DOST-FNRI's S&T Products and Tools



Tubig Talino
Iodine-rich drinking water

- DOST-FNRI developed and rolled-out ***Iodine-Rich Drinking Water*** or “***Tubig Talino***” to help address iodine deficiency
- Made from a blend of purified or ordinary potable water and Water Plus I_2 , a premix of water and iodine.
- 5 milliliters (mL) of Water Plus I_2 can enrich 19 liters of purified or potable drinking water.
- 5 glasses of 250 mL *Tubig Talino* can meet 33% of the daily iodine requirement of an adult Filipino

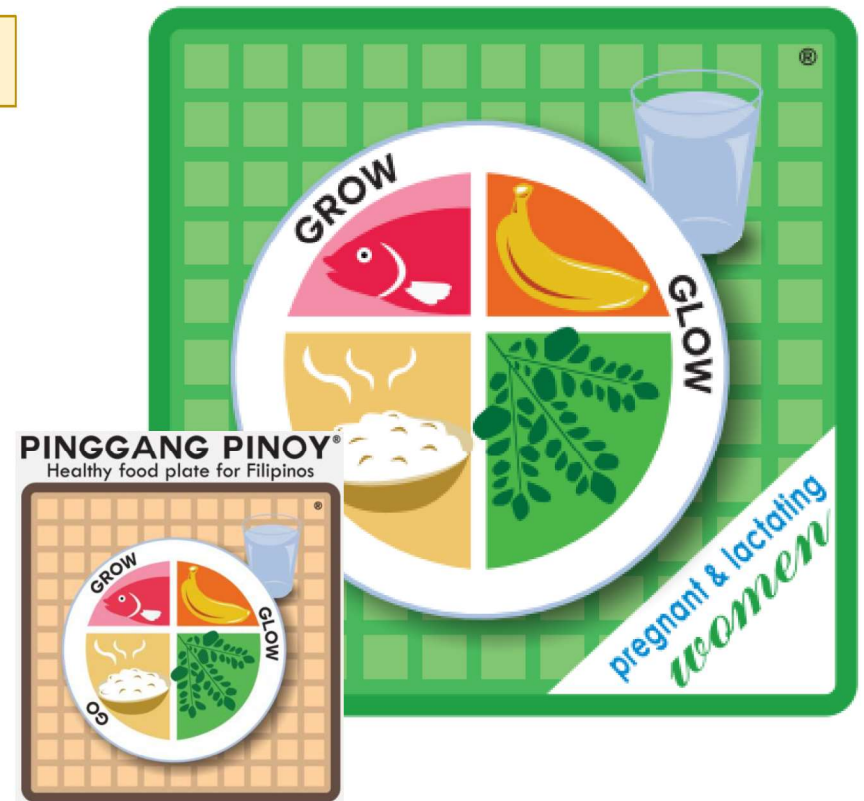


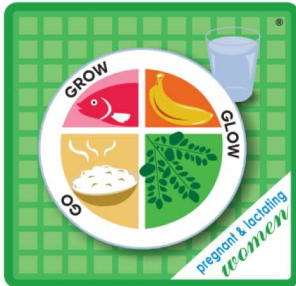
DOST-FNRI's S&T Products and Tools

New strategies for promoting Healthy Diet



PINGGANG PINOY®





Sample one-day meal plan

Pregnant Women

2,230 kcal

BREAKFAST
Fried Bangus
Camote Tops Salad with Tomatoes
Rice
Banana

AM SNACK
Suman

LUNCH
Chicken Tinola with Green Papaya and Malunnggay
Rice
Mango

PM SNACK
Boiled Camote

DINNER
Fried Galunggong
Pinakbet
Rice
Watermelon

≥9 glasses of water in a day

1 glass of milk daily

Lactating Mothers

2,430 kcal

BREAKFAST
Fried Bangus
Camote Tops Salad with Tomatoes
Rice
Banana

AM SNACK
Suman

LUNCH
Chicken Tinola with Green Papaya and Malunnggay
Rice
Mango

PM SNACK
Boiled Camote

DINNER
Fried Galunggong
Pinakbet
Rice
Watermelon

≥10 glasses of water in a day

1 glass of milk daily

DOST-FNRI's R&D undertakings

Updating and Validation of the Weight-for Height Reference Table for Filipino Pregnant Women

Table 3. Updated reference table with 20% increase in weight

Height	PWW (kg)	Pace	Weight (kg)							
			1st Trimester				2nd Trimester			
			4th	5th	6th	7th	8th	9th	10th	
150	37.8	38.4	39.5	40.7	41.8	43.0	44.1	45.3	46.5	
151	37.9	38.5	39.6	40.8	41.9	43.1	44.2	45.4	46.6	
152	38.0	38.6	39.7	40.9	42.0	43.2	44.3	45.5	46.7	
153	38.1	38.7	39.8	41.0	42.1	43.3	44.4	45.6	46.8	
154	38.2	38.8	39.9	41.1	42.2	43.4	44.5	45.7	46.9	
155	38.3	38.9	40.0	41.2	42.3	43.5	44.6	45.8	47.0	
156	38.4	39.0	40.1	41.3	42.4	43.6	44.7	45.9	47.1	
157	38.5	39.1	40.2	41.4	42.5	43.7	44.8	46.0	47.2	
158	38.6	39.2	40.3	41.5	42.6	43.8	44.9	46.1	47.3	
159	38.7	39.3	40.4	41.6	42.7	43.9	45.0	46.2	47.4	
160	38.8	39.4	40.5	41.7	42.8	44.0	45.1	46.3	47.5	
161	38.9	39.5	40.6	41.8	42.9	44.1	45.2	46.4	47.6	
162	39.0	39.6	40.7	41.9	43.0	44.2	45.3	46.5	47.7	
163	39.1	39.7	40.8	42.0	43.1	44.3	45.4	46.6	47.8	
164	39.2	39.8	40.9	42.1	43.2	44.4	45.5	46.7	47.9	
165	39.3	39.9	41.0	42.2	43.3	44.5	45.6	46.8	48.0	
166	39.4	40.0	41.1	42.3	43.4	44.6	45.7	46.9	48.1	
167	39.5	40.1	41.2	42.4	43.5	44.7	45.8	47.0	48.2	
168	39.6	40.2	41.3	42.5	43.6	44.8	45.9	47.1	48.3	
169	39.7	40.3	41.4	42.6	43.7	44.9	46.0	47.2	48.4	
170	39.8	40.4	41.5	42.7	43.8	45.0	46.1	47.3	48.5	
171	39.9	40.5	41.6	42.8	43.9	45.1	46.2	47.4	48.6	
172	40.0	40.6	41.7	42.9	44.0	45.2	46.3	47.5	48.7	
173	40.1	40.7	41.8	43.0	44.1	45.3	46.4	47.6	48.8	
174	40.2	40.8	41.9	43.1	44.2	45.4	46.5	47.7	48.9	
175	40.3	40.9	42.0	43.2	44.3	45.5	46.6	47.8	49.0	
176	40.4	41.0	42.1	43.3	44.4	45.6	46.7	47.9	49.1	
177	40.5	41.1	42.2	43.4	44.5	45.7	46.8	48.0	49.2	
178	40.6	41.2	42.3	43.5	44.6	45.8	46.9	48.1	49.3	
179	40.7	41.3	42.4	43.6	44.7	45.9	47.0	48.2	49.4	
180	40.8	41.4	42.5	43.7	44.8	46.0	47.1	48.3	49.5	
181	40.9	41.5	42.6	43.8	44.9	46.1	47.2	48.4	49.6	
182	41.0	41.6	42.7	43.9	45.0	46.2	47.3	48.5	49.7	
183	41.1	41.7	42.8	44.0	45.1	46.3	47.4	48.6	49.8	
184	41.2	41.8	42.9	44.1	45.2	46.4	47.5	48.7	49.9	
185	41.3	41.9	43.0	44.2	45.3	46.5	47.6	48.8	50.0	
186	41.4	42.0	43.1	44.3	45.4	46.6	47.7	48.9	50.1	
187	41.5	42.1	43.2	44.4	45.5	46.7	47.8	49.0	50.2	
188	41.6	42.2	43.3	44.5	45.6	46.8	47.9	49.1	50.3	
189	41.7	42.3	43.4	44.6	45.7	46.9	48.0	49.2	50.4	
190	41.8	42.4	43.5	44.7	45.8	47.0	48.1	49.3	50.5	
191	41.9	42.5	43.6	44.8	45.9	47.1	48.2	49.4	50.6	
192	42.0	42.6	43.7	44.9	46.0	47.2	48.3	49.5	50.7	
193	42.1	42.7	43.8	45.0	46.1	47.3	48.4	49.6	50.8	
194	42.2	42.8	43.9	45.1	46.2	47.4	48.5	49.7	50.9	
195	42.3	42.9	44.0	45.2	46.3	47.5	48.6	49.8	51.0	
196	42.4	43.0	44.1	45.3	46.4	47.6	48.7	49.9	51.1	
197	42.5	43.1	44.2	45.4	46.5	47.7	48.8	50.0	51.2	
198	42.6	43.2	44.3	45.5	46.6	47.8	48.9	50.1	51.3	
199	42.7	43.3	44.4	45.6	46.7	47.9	49.0	50.2	51.4	
200	42.8	43.4	44.5	45.7	46.8	48.0	49.1	50.3	51.5	
201	42.9	43.5	44.6	45.8	46.9	48.1	49.2	50.4	51.6	
202	43.0	43.6	44.7	45.9	47.0	48.2	49.3	50.5	51.7	
203	43.1	43.7	44.8	46.0	47.1	48.3	49.4	50.6	51.8	
204	43.2	43.8	44.9	46.1	47.2	48.4	49.5	50.7	51.9	
205	43.3	43.9	45.0	46.2	47.3	48.5	49.6	50.8	52.0	
206	43.4	44.0	45.1	46.3	47.4	48.6	49.7	50.9	52.1	
207	43.5	44.1	45.2	46.4	47.5	48.7	49.8	51.0	52.2	
208	43.6	44.2	45.3	46.5	47.6	48.8	49.9	51.1	52.3	
209	43.7	44.3	45.4	46.6	47.7	48.9	50.0	51.2	52.4	
210	43.8	44.4	45.5	46.7	47.8	49.0	50.1	51.3	52.5	
211	43.9	44.5	45.6	46.8	47.9	49.1	50.2	51.4	52.6	
212	44.0	44.6	45.7	46.9	48.0	49.2	50.3	51.5	52.7	
213	44.1	44.7	45.8	47.0	48.1	49.3	50.4	51.6	52.8	
214	44.2	44.8	45.9	47.1	48.2	49.4	50.5	51.7	52.9	
215	44.3	44.9	46.0	47.2	48.3	49.5	50.6	51.8	53.0	
216	44.4	45.0	46.1	47.3	48.4	49.6	50.7	51.9	53.1	
217	44.5	45.1	46.2	47.4	48.5	49.7	50.8	52.0	53.2	
218	44.6	45.2	46.3	47.5	48.6	49.8	50.9	52.1	53.3	
219	44.7	45.3	46.4	47.6	48.7	49.9	51.0	52.2	53.4	
220	44.8	45.4	46.5	47.7	48.8	50.0	51.1	52.3	53.5	
221	44.9	45.5	46.6	47.8	48.9	50.1	51.2	52.4	53.6	
222	45.0	45.6	46.7	47.9	49.0	50.2	51.3	52.5	53.7	
223	45.1	45.7	46.8	48.0	49.1	50.3	51.4	52.6	53.8	
224	45.2	45.8	46.9	48.1	49.2	50.4	51.5	52.7	53.9	
225	45.3	45.9	47.0	48.2	49.3	50.5	51.6	52.8	54.0	
226	45.4	46.0	47.1	48.3	49.4	50.6	51.7	52.9	54.1	
227	45.5	46.1	47.2	48.4	49.5	50.7	51.8	53.0	54.2	
228	45.6	46.2	47.3	48.5	49.6	50.8	51.9	53.1	54.3	
229	45.7	46.3	47.4	48.6	49.7	50.9	52.0	53.2	54.4	
230	45.8	46.4	47.5	48.7	49.8	51.0	52.1	53.3	54.5	
231	45.9	46.5	47.6	48.8	49.9	51.1	52.2	53.4	54.6	
232	46.0	46.6	47.7	48.9	50.0	51.2	52.3	53.5	54.7	
233	46.1	46.7	47.8	49.0	50.1	51.3	52.4	53.6	54.8	
234	46.2	46.8	47.9	49.1	50.2	51.4	52.5	53.7	54.9	
235	46.3	46.9	48.0	49.2	50.3	51.5	52.6	53.8	55.0	
236	46.4	47.0	48.1	49.3	50.4	51.6	52.7	53.9	55.1	
237	46.5	47.1	48.2	49.4	50.5	51.7	52.8	54.0	55.2	
238	46.6	47.2	48.3	49.5	50.6	51.8	52.9	54.1	55.3	
239	46.7	47.3	48.4	49.6	50.7	51.9	53.0	54.2	55.4	
240	46.8	47.4	48.5	49.7	50.8	52.0	53.1	54.3	55.5	
241	46.9	47.5	48.6	49.8	50.9	52.1	53.2	54.4	55.6	
242	47.0	47.6	48.7	49.9	51.0	52.2	53.3	54.5	55.7	
243	47.1	47.7	48.8	50.0	51.1	52.3	53.4	54.6	55.8	
244	47.2	47.8	48.9	50.1	51.2	52.4	53.5	54.7	55.9	
245	47.3	47.9	49.0	50.2	51.3	52.5	53.6	54.8	56.0	
246	47.4	48.0	49.1	50.3	51.4	52.6	53.7	54.9	56.1	
247	47.5	48.1	49.2	50.4	51.5	52.7	53.8	55.0	56.2	
248	47.6	48.2	49.3	50.5	51.6	52.8	53.9	55.1	56.3	
249	47.7	48.3	49.4	50.6	51.7	52.9	54.0	55.2	56.4	
250	47.8	48.4	49.5	50.7	51.8	53.0	54.1	55.3	56.5	
251	47.9	48.5	49.6	50.8	51.9	53.1	54.2	55.4	56.6	
252	48.0	48.6	49.7	50.9	52.0	53.2	54.3	55.5	56.7	
253	48.1	48.7	49.8	51.0	52.1	53.3	54.4	55.6	56.8	
254	48.2	48.8	49.9	51.1	52.2	53.4	54.5	55.7	56.9	
255	48.3	48.9	50.0	51.2	52.3	53.5	54.6	55.8	57.0	
256	48.4	49.0	50.1	51.3	52.4	53.6	54.7	55.9	57.1	
257	48.5	49.1	50.2	51.4	52.5	53.7	54.8	56.0	57.2	
258	48.6	49.2	50.3	51.5	52.6	53.8	54.9	56.1	57.3	
259	48.7	49.3	50.4	51.6	52.7	53.9	55.0	56.2	57.4	
260	48.8	49.4	50.5	51.7	52.8	54.0	55.1	56.3	57.5	
261	48.9	49.5	50.6	51.8	52.9	54.1	55.2	56.4	57.6	
262	49.0	49.6	50.7	51.9	53.0	54.2	55.3	56.5	57.7	
263	49.1	49.7	50.8	52.0	53.1	54.3	55.4	56.6	57.8	
264	49.2	49.8	50.9	52.1	53.2	54.4	55.5	56.7	57.9	
265	49.3	49.9	51.0	52.2	53.3	54.5	55.6	56.8	58.0	
266	49.4	50.0	51.1	52.3	53.4	54.6	55.7	56.9	58.1	
267	49.5	50.1	51.2	52.4	53.5	54.7	55.8	57.0	58.2	
268	49.6	50.2	51.3	52.5	53.6	54.8	55.9	57.1	58.3	
269	49.7	50.3	51.4	52.6	53.7	54.9	56.0	57.2	58.4	
270	49.8	50.4	51.5	52.7	53.8	55.0	56.1	57.3	58.5	
271	49.9	50.5	51.6	52.8	53.9	55.1	56.2	57.4	58.6	
272	50.0	50.6	51.7	52.9	54.0	55.2	56.3	57.5	58.7	
273	50.1	50.7	51.8	53.0	54.1	55.3	56.4	57.6	58.8	
274	50.2	50.8	51.9	53.1	54.2	55.4	56.5	57.7	58.9	
275	50.3	50.9	52.0	53.2	54.3	55.5	56.6	57.8	59.0	
276	50.4	51.0	52.1	53.3	54.4	55.6	56.7	57.9	59.1	
277	50.5	51.1	52.2	53.4	54.5	55.7	56.8	58.0	59.2	
278	50.6	51.2	52.3	53.5	54.6	55.8	56.9	58.1	59.3	
279	50.7	51.3	52.4	53.6	54.7	55.9	57.0			



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CONCLUSION:

- ❑ The Philippines is experiencing a triple burden of malnutrition where overweight and obesity are rising while undernutrition including micronutrient deficiency remains a concern.
- ❑ Some existing maternal health and nutrition programs showed promising impacts on improving maternal health, particularly in reducing maternal anemia prevalence.
- ❑ However, it is crucial to invest in the evaluations of interventions and programs designed to address these issues among Filipino women to identify the optimal forms of interventions and strategies.

Maternal Health and Nutrition in the Philippines: What have we learned?



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ACTION POINTS:

- ☐ Evidence-based, convergence of efforts for multisectoral strategies to implement wholistic nutrition-specific and nutrition-sensitive interventions by key sectors (such as education, social protection, and agriculture) are critically needed.
- ☐ New strategies for the promotion of healthy diets including lifestyle, energy intake through different channels and platforms are promising.

Maternal Health and Nutrition in the Philippines: What have we learned?

Department of Science and Technology
Food and Nutrition Research Institute



Thank You

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E-nutrition: <http://enutrition.fnri.dost.gov.ph>



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Maternal Health and Nutrition in the Philippines: What have we learned?