



CALABARZON NUTRITION SITUATION

RPAN FORMULATION WORKSHOP 2018

Images from Rappler and UNICEF

EXECUTIVE SUMMARY

- ✓ Regional Nutrition Situation
- ✓ Immediate Causes of Malnutrition
- ✓ Underlying Causes of Malnutrition
- ✓ Basic Causes of Malnutrition
- ✓ Status of Current Programs



SNAPSHOT OF THE REGION



CALABARZON (Region IV-A) is one of the 17 regions in the Philippines located in the **southwestern** part of the island of Luzon and has a total land area of **16,560 square kilometers**. It is the second most densely populated region in the country, principally because it is the closest region to Metro Manila. Because of its close

proximity to Manila and the industrial and economic opportunities that exist there, CALABARZON is experiencing rapid urbanization. It has a total population of **14 414 774** as of 2015 (Male=7 221 488, Female=7 193 286, 0-14 years=4 327 032, 15-64 years=9 476 053, 65 years and over=611 689).

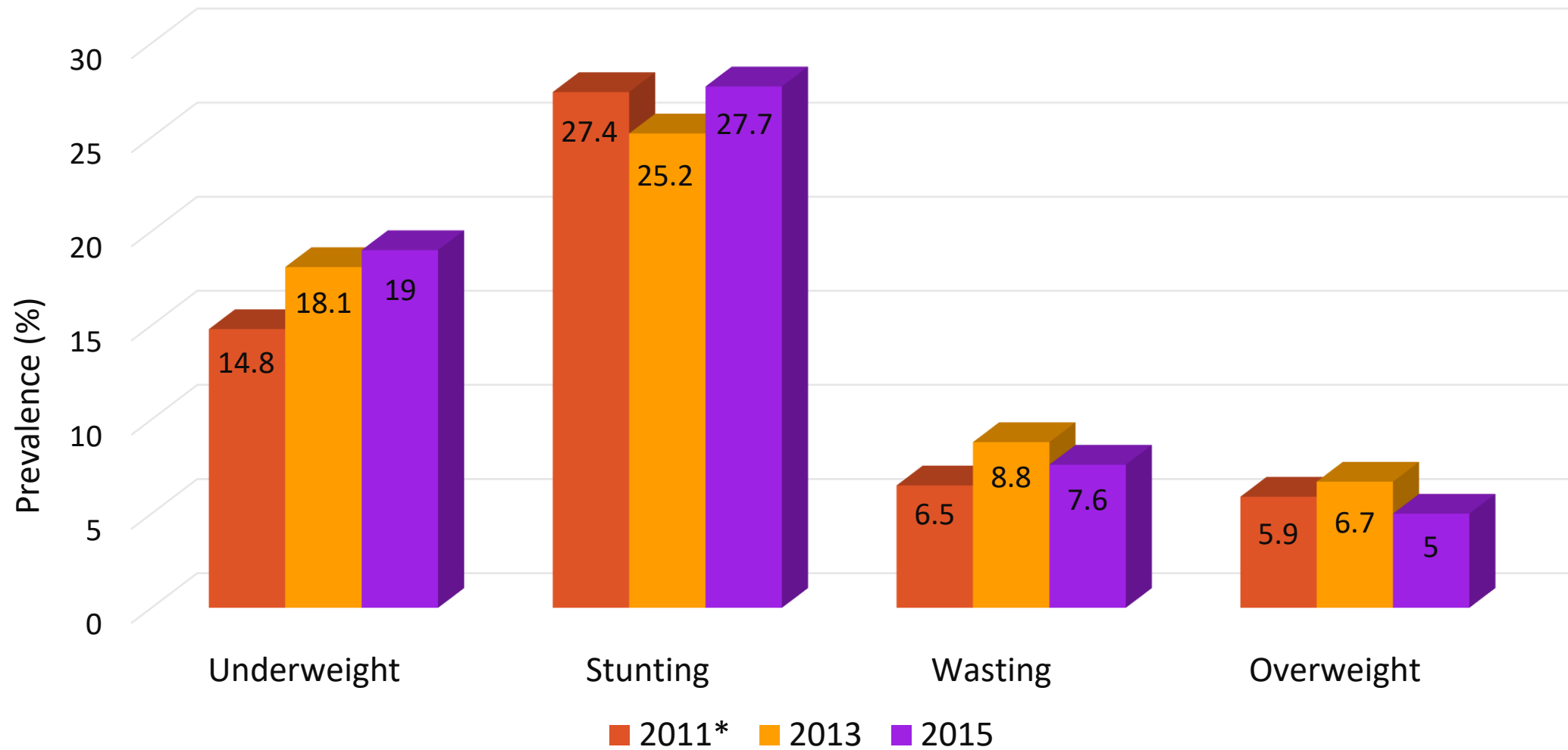


NUTRITION SITUATION REGIONWIDE

ANTHROPOMETRY

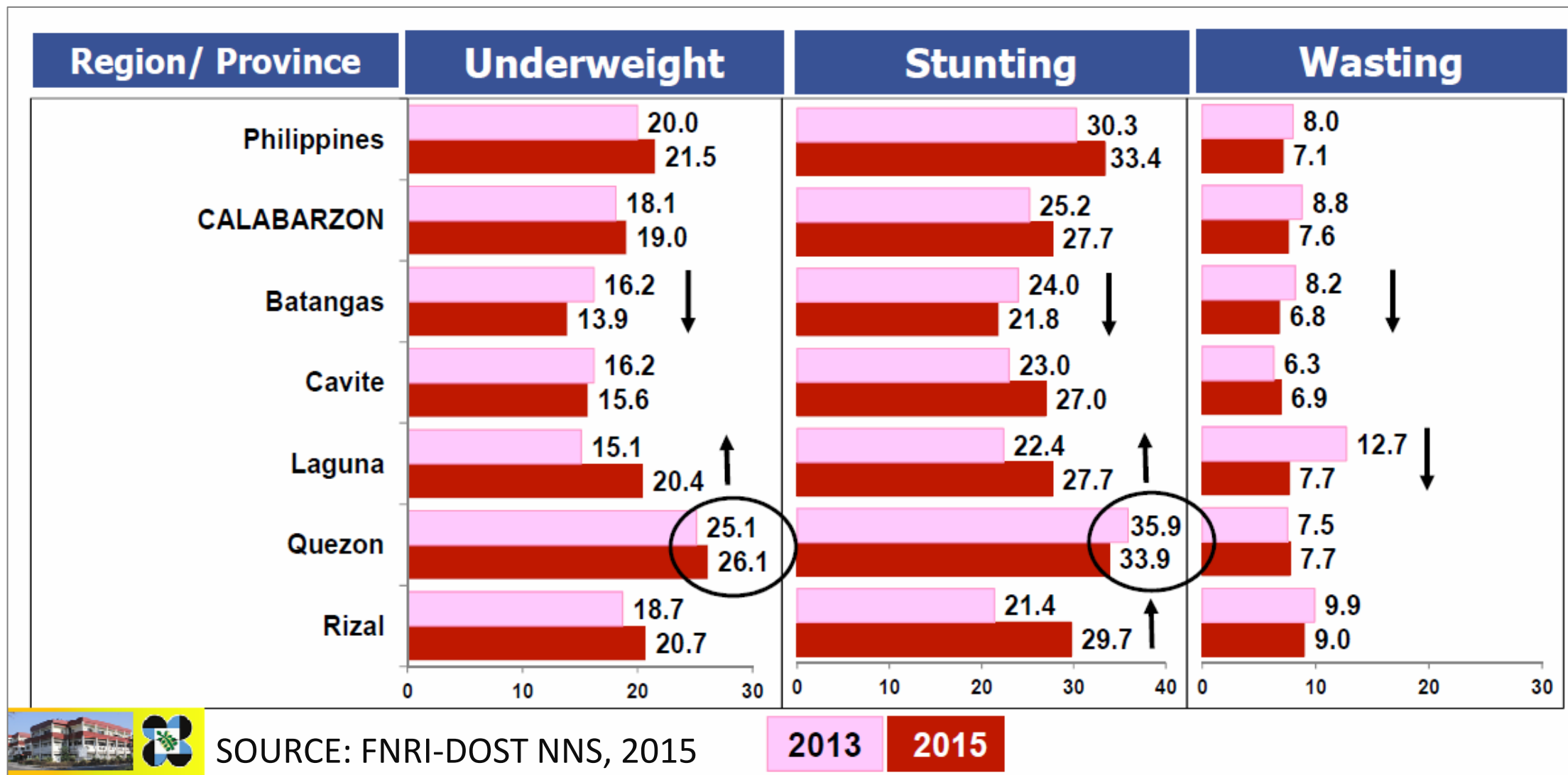
Image from Global Giving

PREVALENCE OF **MALNOURISHED** AMONG CHILDREN LESS THAN 5 YEARS OLD - CALABARZON

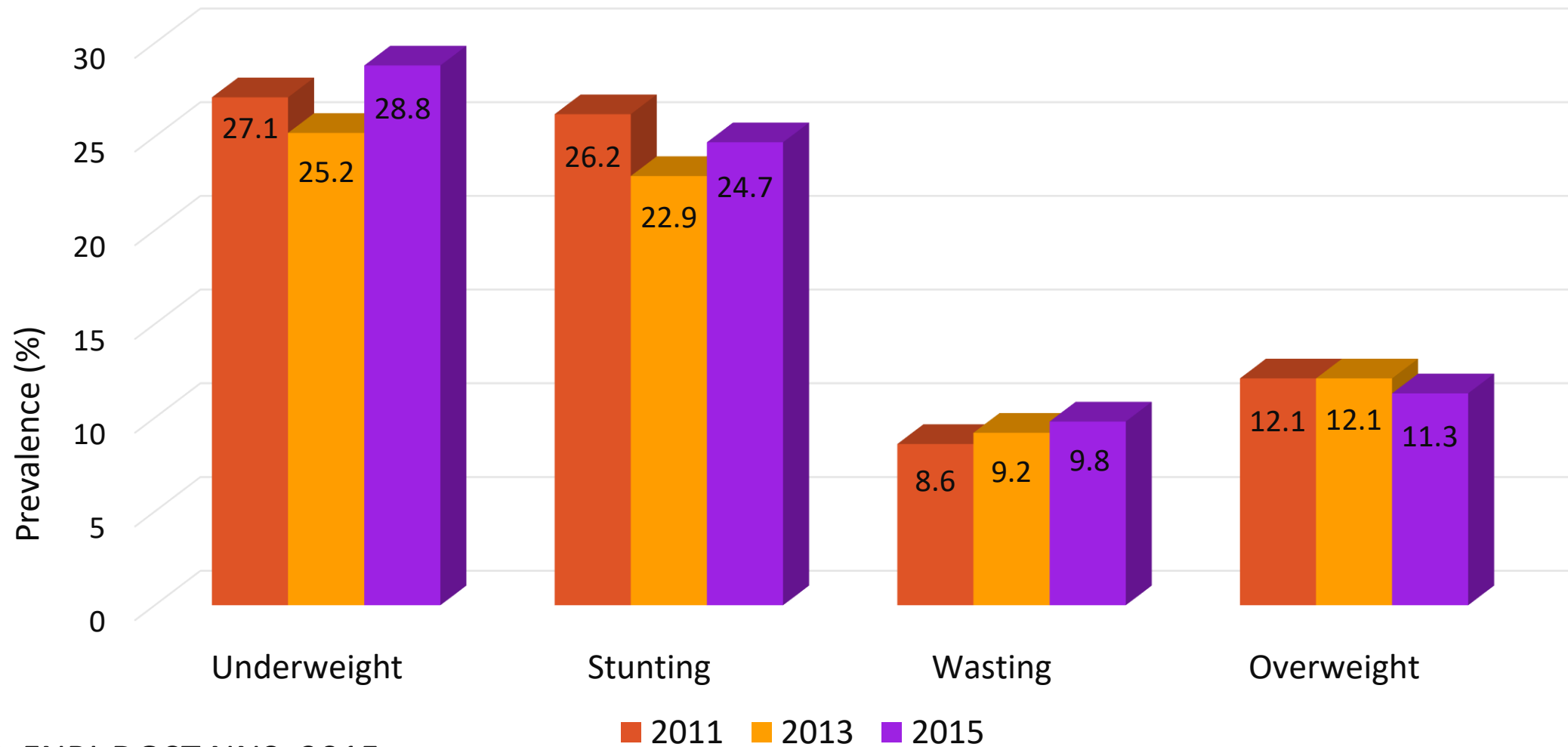


SOURCE: FNRI-DOST NNS, 2015

PREVALENCE OF **UNDERNUTRITION** AMONG CHILDREN, LESS THAN 5 YEARS OLD BY PROVINCE, 2013 VS 2015 – CALABARZON AND PROVINCES

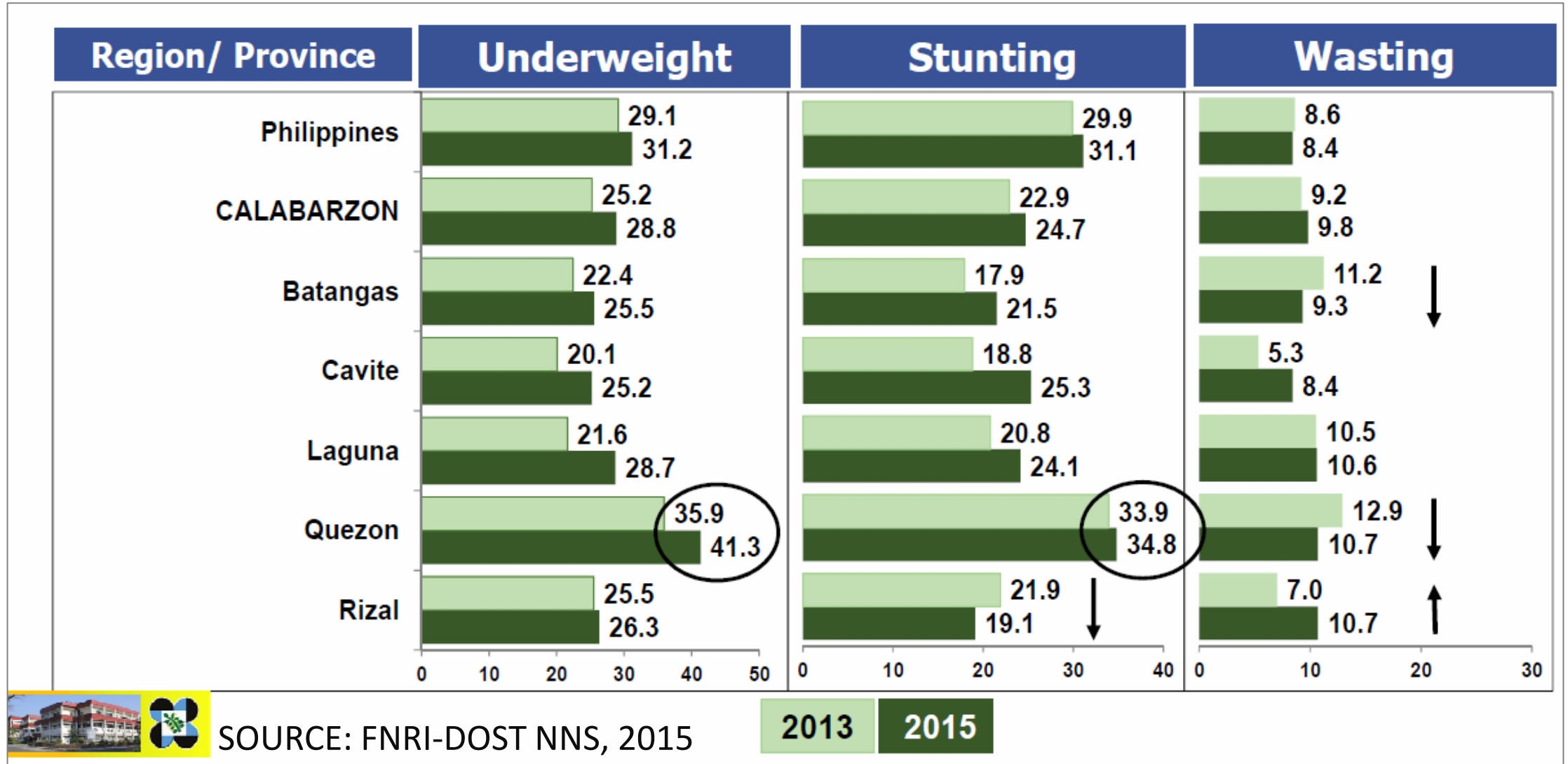


PREVALENCE OF **MALNOURISHED** AMONG CHILDREN 5-10 YEARS OLD – CALABARZON

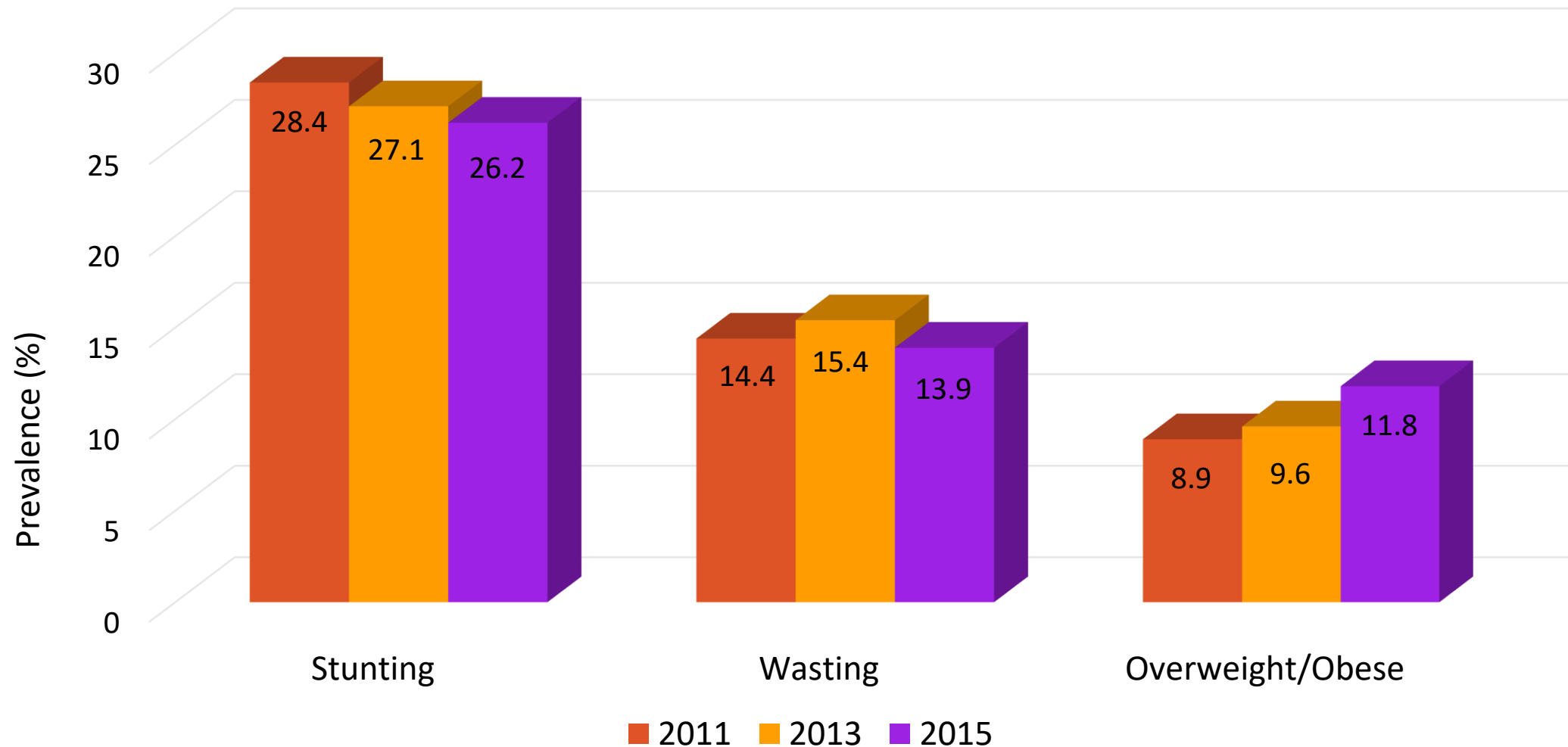


SOURCE: FNRI-DOST NNS, 2015

PREVALENCE OF **UNDERNUTRITION** AMONG CHILDREN, 5-10 YEARS OLD BY PROVINCE, 2013 VS 2015 - CALABARZON

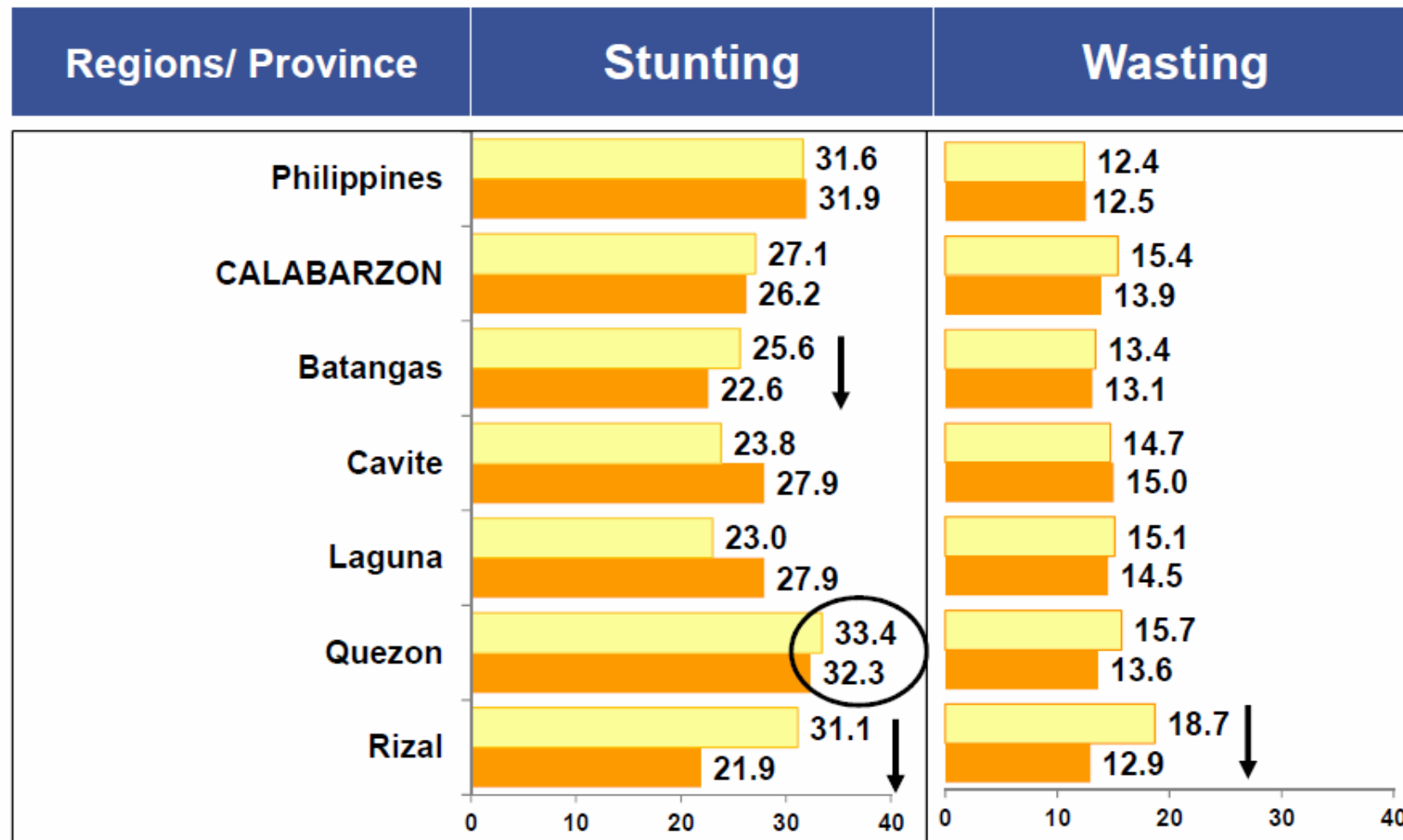


PREVALENCE OF **MALNOURISHED** AMONG CHILDREN 10-19 YEARS OLD - CALABARZON



SOURCE: FNRI-DOST NNS, 2015

PREVALENCE OF **UNDERNUTRITION** AMONG CHILDREN, 10-19 YEARS OLD BY PROVINCE, 2013 VS 2015 - CALABARZON

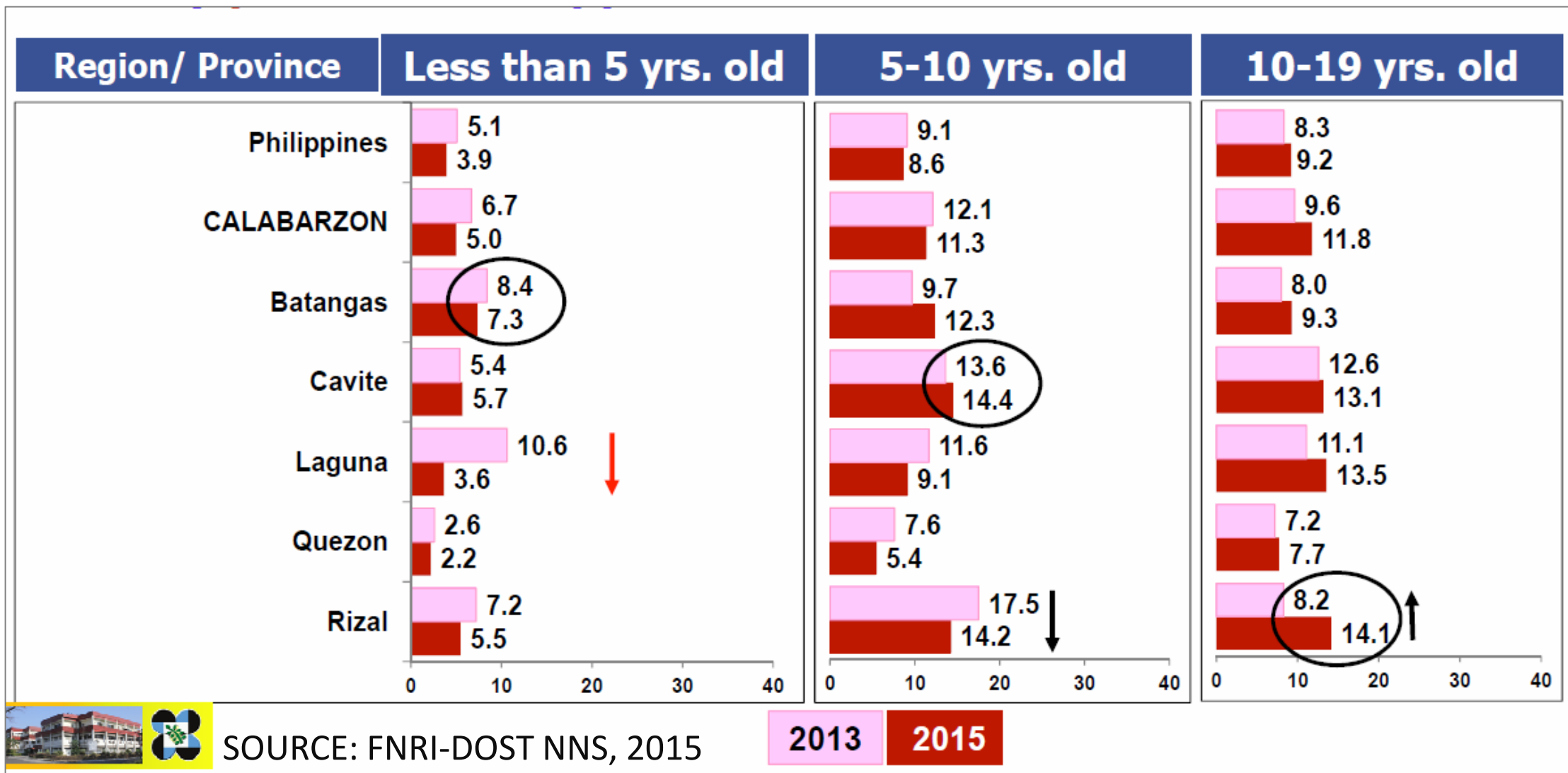


SOURCE: FNRI-DOST NNS, 2015

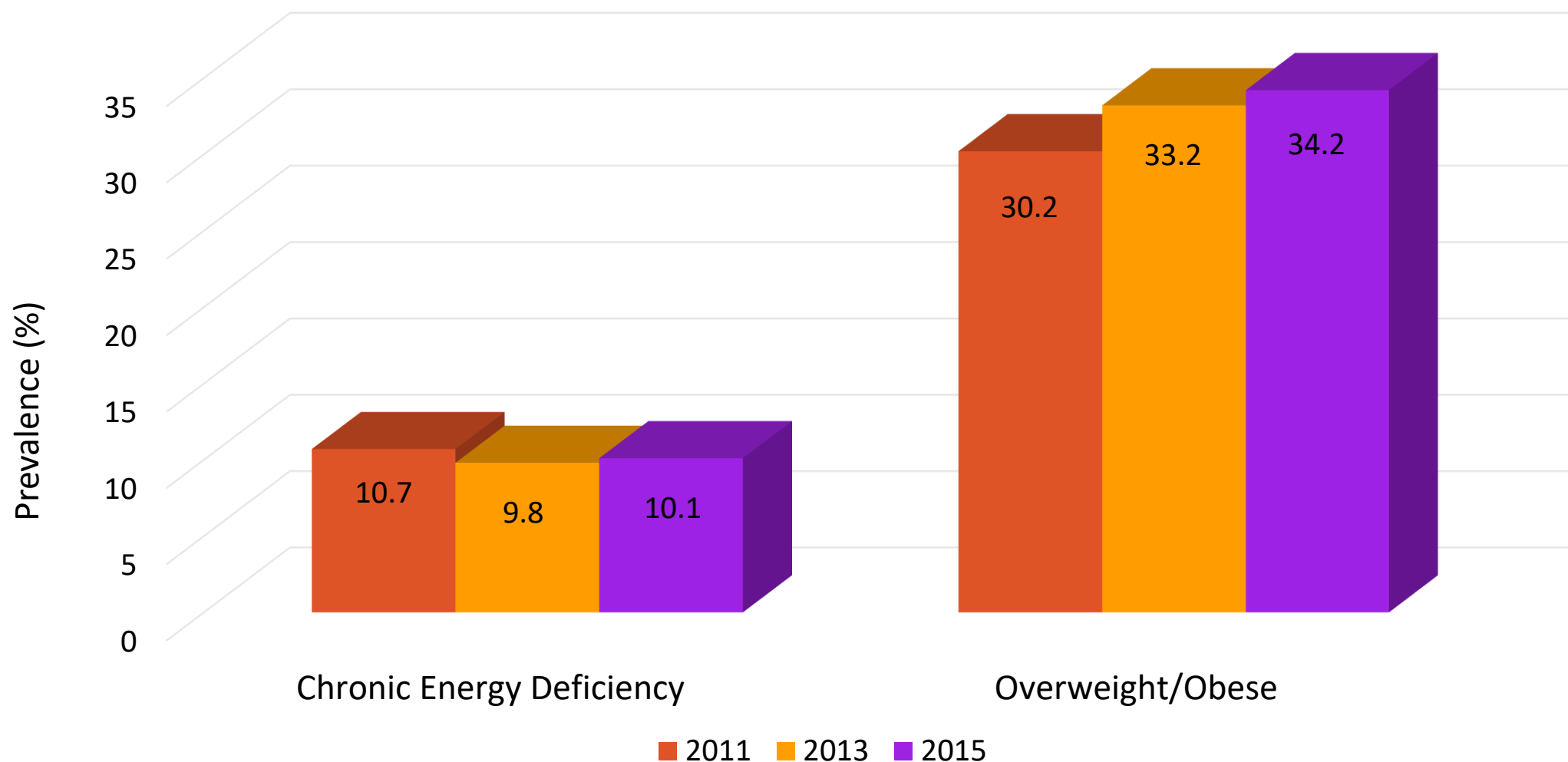
2013

2015

PREVALENCE OF **OVERWEIGHT & OBESE** AMONG CHILDREN, 0-19 YEARS OLD BY PROVINCE, 2013 VS 2015 - CALABARZON

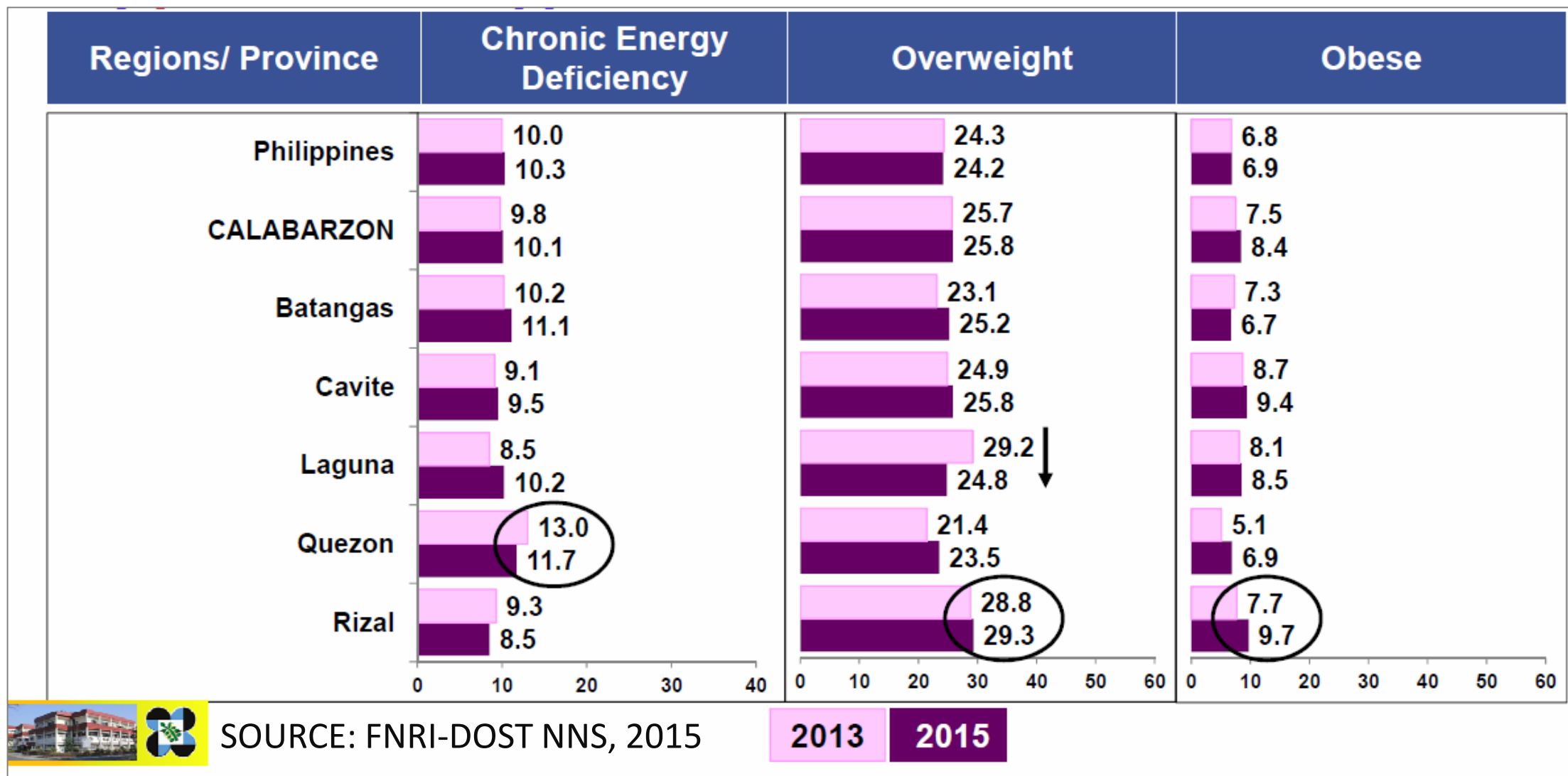


Prevalence of **MALNOURISHED** among adults, ≥ 20 years old based on BMI - CALABRZON



SOURCE: FNRI-DOST NNS, 2015

PREVALENCE OF **MALNUTRITION** AMONG ADULTS, ≥ 20 YEARS OLD BY PROVINCE, 2013 VS 2015 - CALABARZON



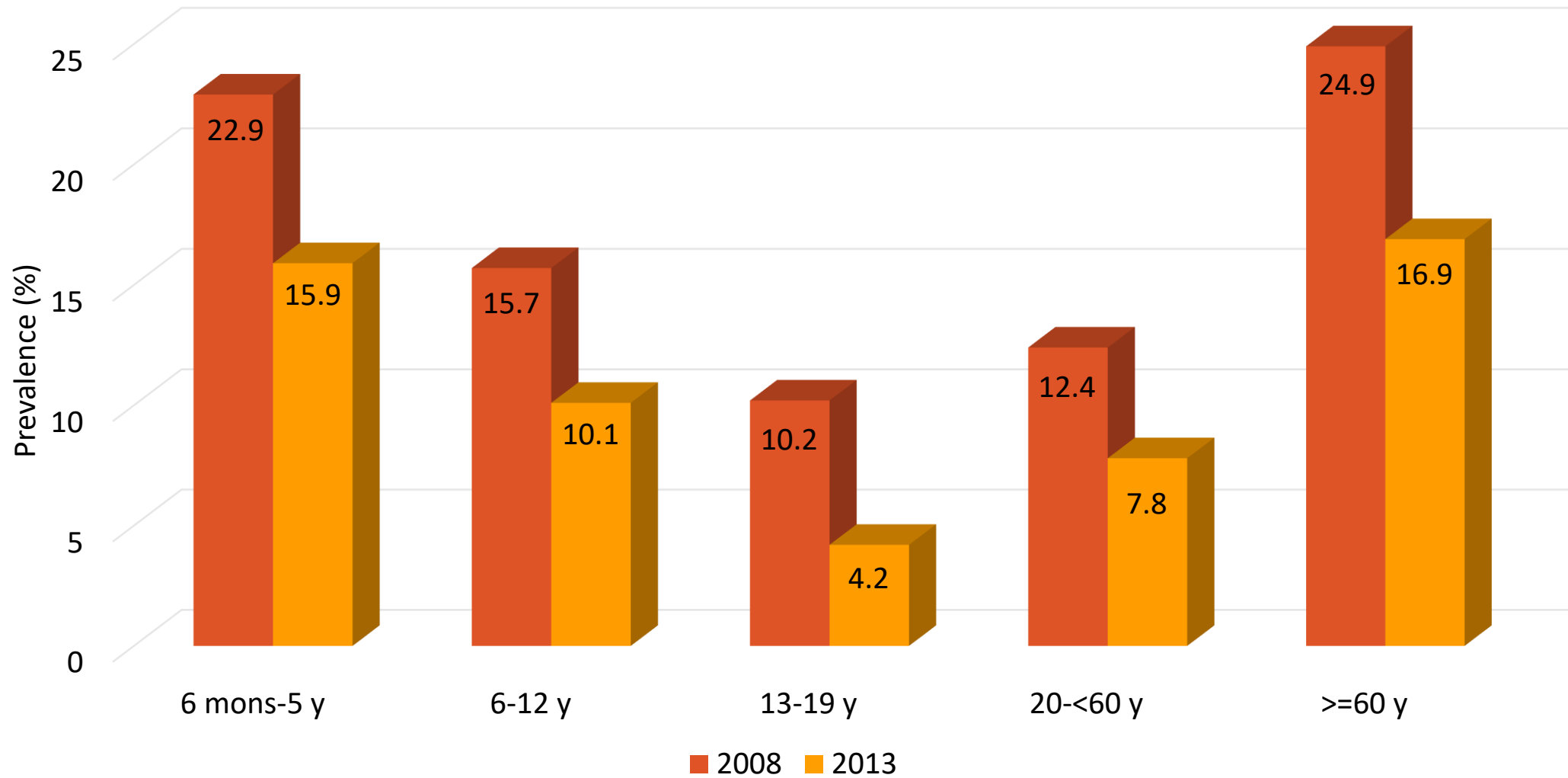


NUTRITION SITUATION REGIONWIDE

BIOCHEMICAL

Image from BSA Health Center

PREVALENCE OF **ANEMIA** PER AGE GROUP - CALABARZON



SOURCE: FNRI-DOST NNS, 2013

PERCENT DISTRIBUTION OF **SERUM RETINOL** AMONG CHILDREN, 5 MONTHS TO 5 YEARS OLD BY REGION, 2013 VS 2015 - PHILIPPINES

Region	n	SerumRetinol Mean \pm SE	Percent Distribution		
			Def & low	Acceptable	High
PHILIPPINES	3139	26.4 \pm 0.3	20.4	78.4	1.3
NCR	219	23.5 \pm 0.8	27.3	72.7	0.0
CAR	155	28.8 \pm 0.9	12.5	84.5	3.0
1 Ilocos	201	25.4 \pm 0.9	26.1	72.9	1.0
2 Cagayan Valley	174	28.6 \pm 1.0	12.8	84.9	2.3
3 Central Luzon	304	28.0 \pm 0.6	10.4	88.6	1.0
4a CALABARZON	324	27.4 \pm 0.6	14.6	84.5	0.9
4b MIMAROPA	123	26.4 \pm 0.9	19.0	80.2	0.8
5 Bicol	115	24.5 \pm 0.4	27.7	72.3	0.0
6 Western Visayas	196	27.8 \pm 0.6	18.3	77.1	4.6
7 Central Visayas	227	26.4 \pm 1.0	22.2	77.0	0.8
8 Eastern Visayas	123	27.4 \pm 1.9	20.2	78.9	1.0
9 Zamboanga Peninsula	158	25.6 \pm 1.5	32.7	64.7	2.6
10 Northern Mindanao	197	27.4 \pm 0.9	21.0	76.4	2.6
11 Davao	193	24.6 \pm 0.8	24.5	75.0	0.6
12 SOCCKSARGEN	217	25.5 \pm 1.0	26.2	72.4	1.4
ARMM	121	27.5 \pm 1.2	22.0	77.2	0.9
CARAGA	92	25.3 \pm 0.9	19.8	79.0	1.2

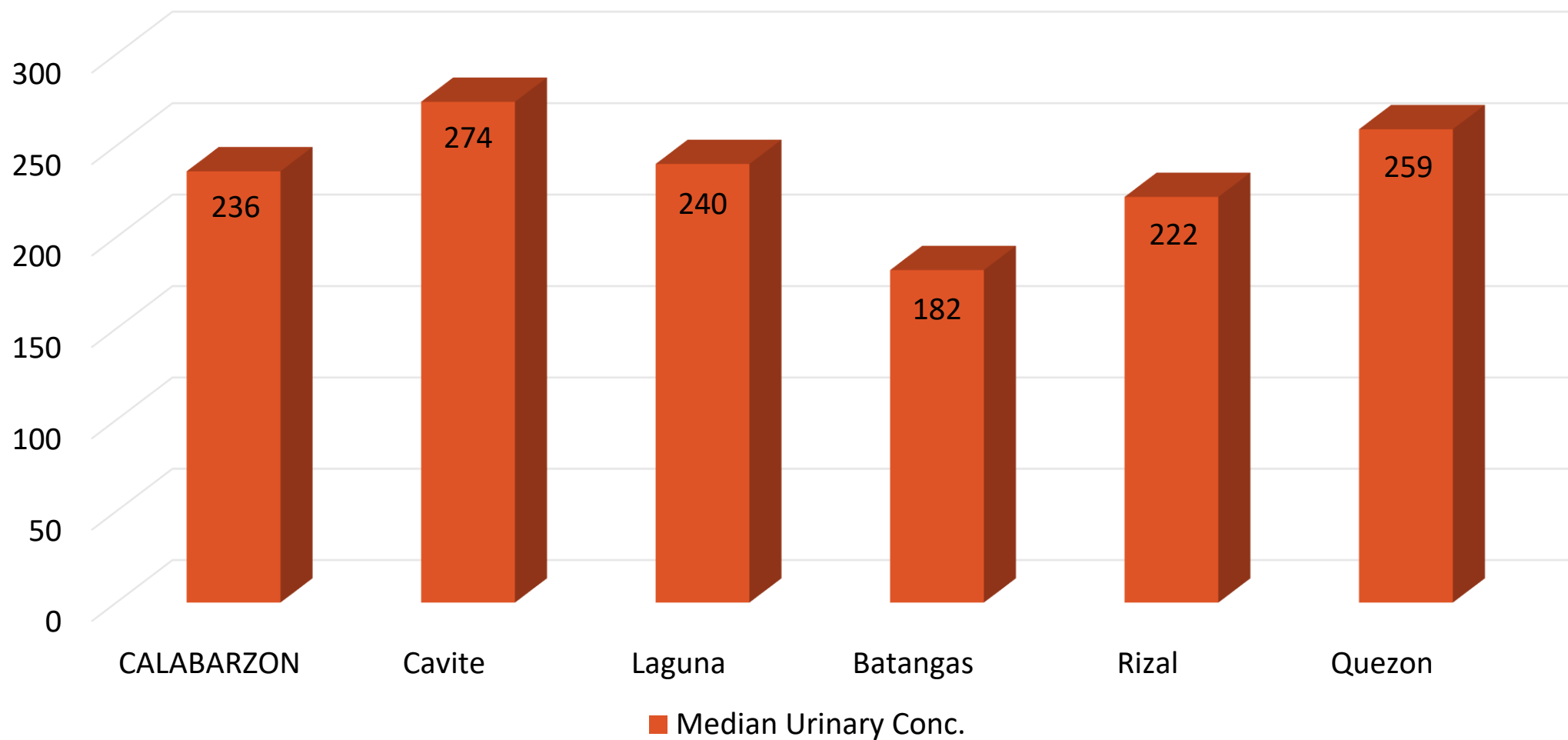
SOURCE: FNRI-DOST NNS, 2013

PERCENT DISTRIBUTION OF **SERUM RETINOL** AMONG CHILDREN, 6 – 12
YEARS OLD BY REGION, 2013 VS 2015 - PHILIPPINES

Region	n	SerumRetinol Mean \pm SE	Percent Distribution		
			Def & low	Acceptable	High
PHILIPPINES	5752	29.7 \pm 0.2	10.7	86.7	2.6
NCR	433	28.1 \pm 0.7	13.9	84.0	2.0
CAR	269	33.3 \pm 0.9	6.5	86.6	6.9
1 Ilocos	331	29.5 \pm 1.0	10.4	86.5	3.2
2 Cagayan Valley	261	30.7 \pm 1.0	8.2	89.3	2.5
3 Central Luzon	480	31.2 \pm 0.4	3.2	94.6	2.2
4a CALABARZON	541	30.9 \pm 0.7	7.3	89.7	2.9
4b MIMAROPA	285	29.6 \pm 0.7	9.2	87.8	3.0
5 Bicol	295	27.1 \pm 1.1	19.1	78.9	2.0
6 Western Visayas	378	29.1 \pm 1.2	16.1	80.3	3.6
7 Central Visayas	363	28.5 \pm 0.6	9.8	88.3	1.9
8 Eastern Visayas	320	29.7 \pm 1.1	16.9	79.8	3.3
9 Zamboanga Peninsula	281	27.7 \pm 1.4	21.4	76.3	2.2
10 Northern Mindanao	314	30.9 \pm 0.9	5.9	91.6	2.5
11 Davao	355	31.1 \pm 0.9	7.4	90.2	2.4
12 SOCCKSARGEN	357	30.3 \pm 0.7	9.4	88.3	2.3
ARMM	257	30.8 \pm 1.2	10.3	87.7	2.0
CARAGA	232	27.7 \pm 0.9	14.4	84.4	1.2

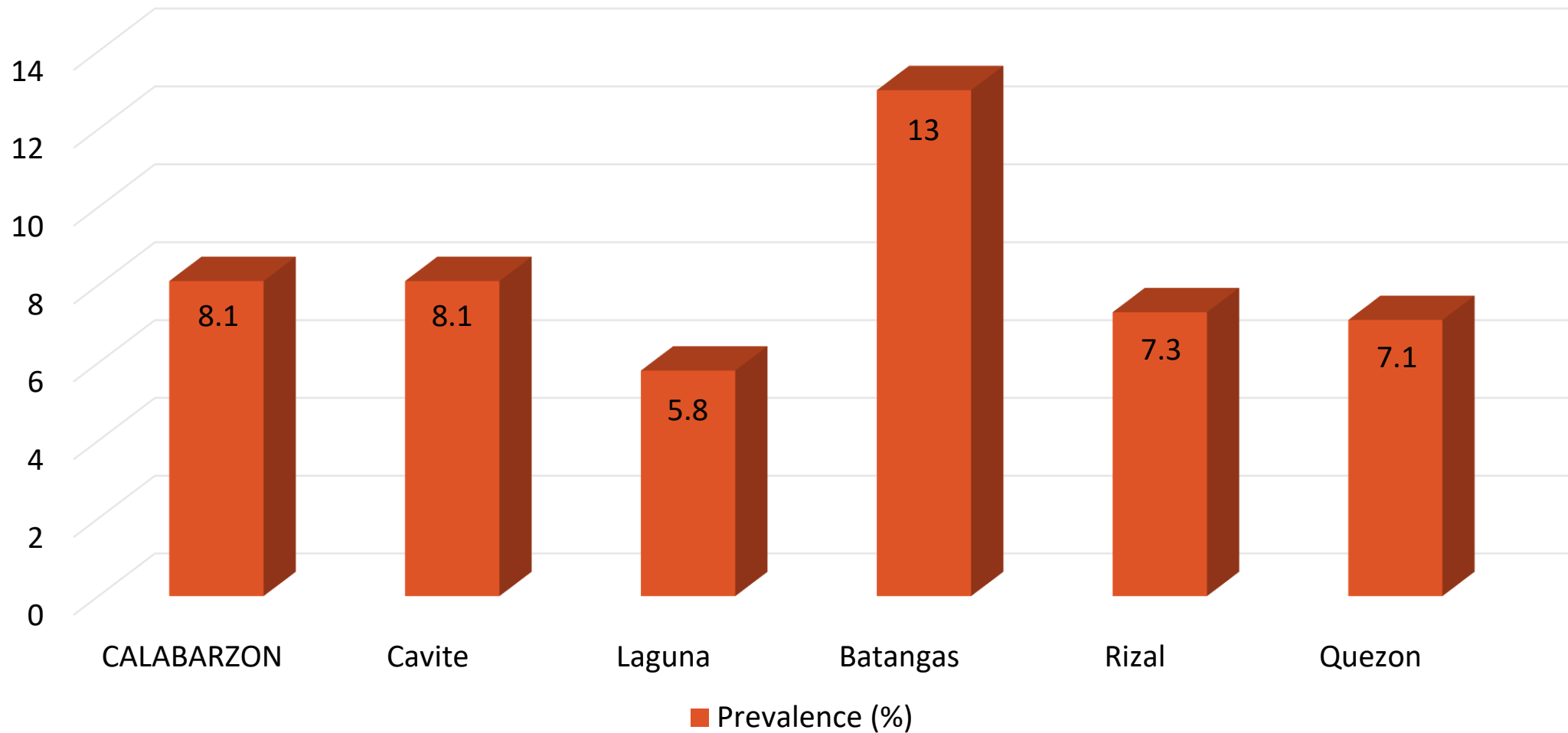
SOURCE: FNRI-DOST NNS, 2013

MEDIAN URINE IODINE EXCRETION **<50 $\mu\text{g/L}$** AMONG **6-12 YEARS OLD** BY
PROVINCE, CALABARZON



SOURCE: FNRI-DOST NNS, 2013

PERCENT OF CHILDREN 6-12 YEARS OLD WITH URINE IODINE EXCRETION
<50 ug/L BY PROVINCE, CALABARZON



SOURCE: FNRI-DOST NNS, 2013

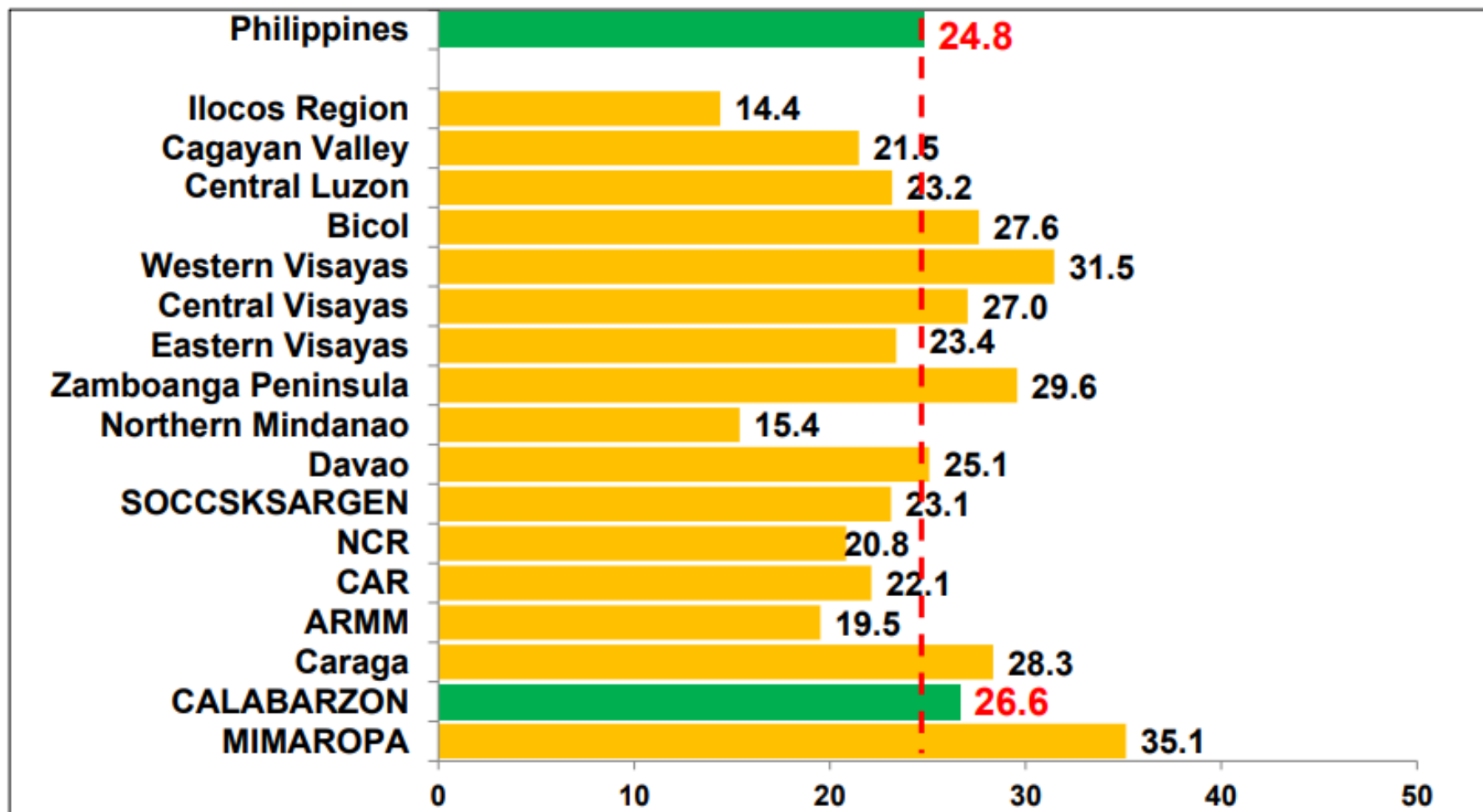


NUTRITION SITUATION REGIONWIDE

MOTHER AND BABY

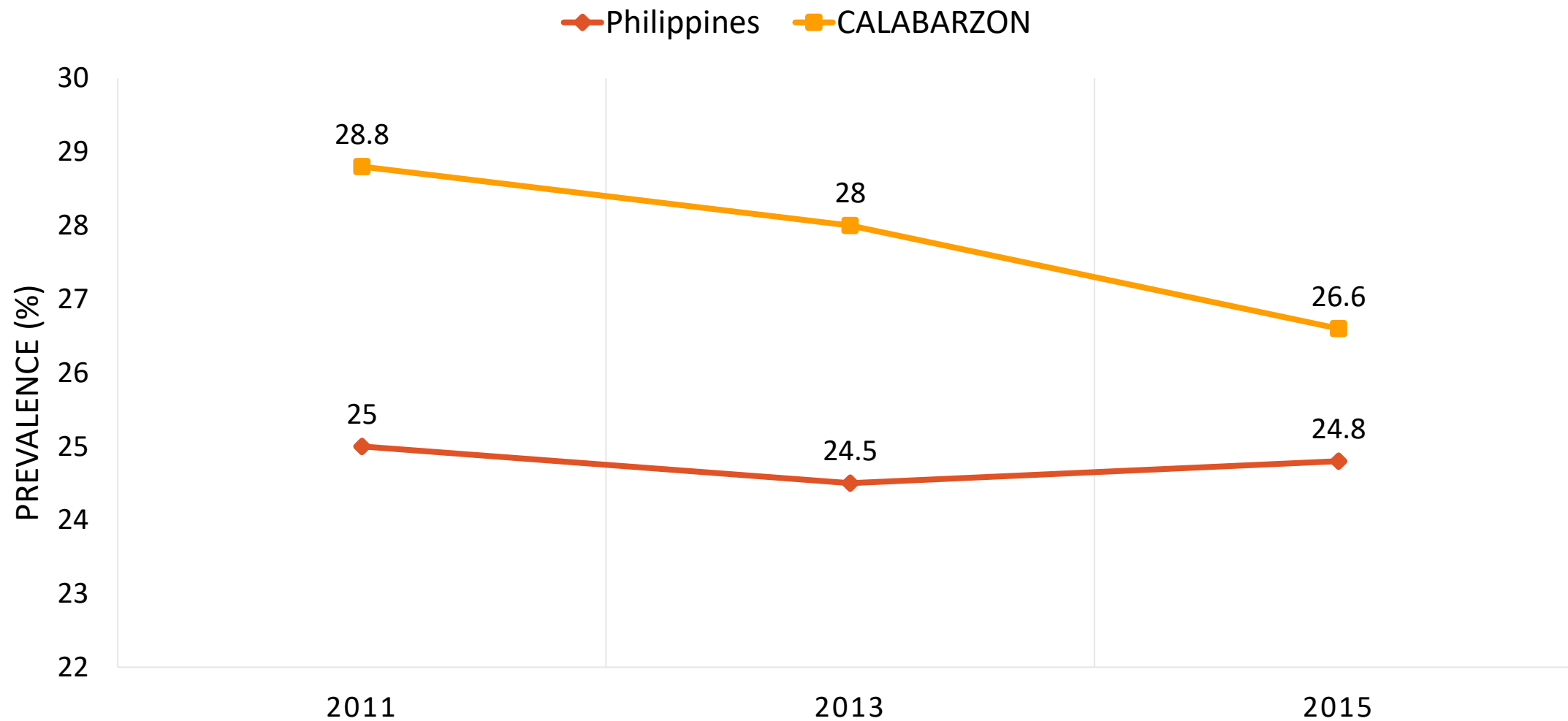
Image from Sonia Narang

PREVALENCE OF **NUTRITIONALLY-AT RISK PREGNANT WOMEN** BY
REGION, PHILIPPINES



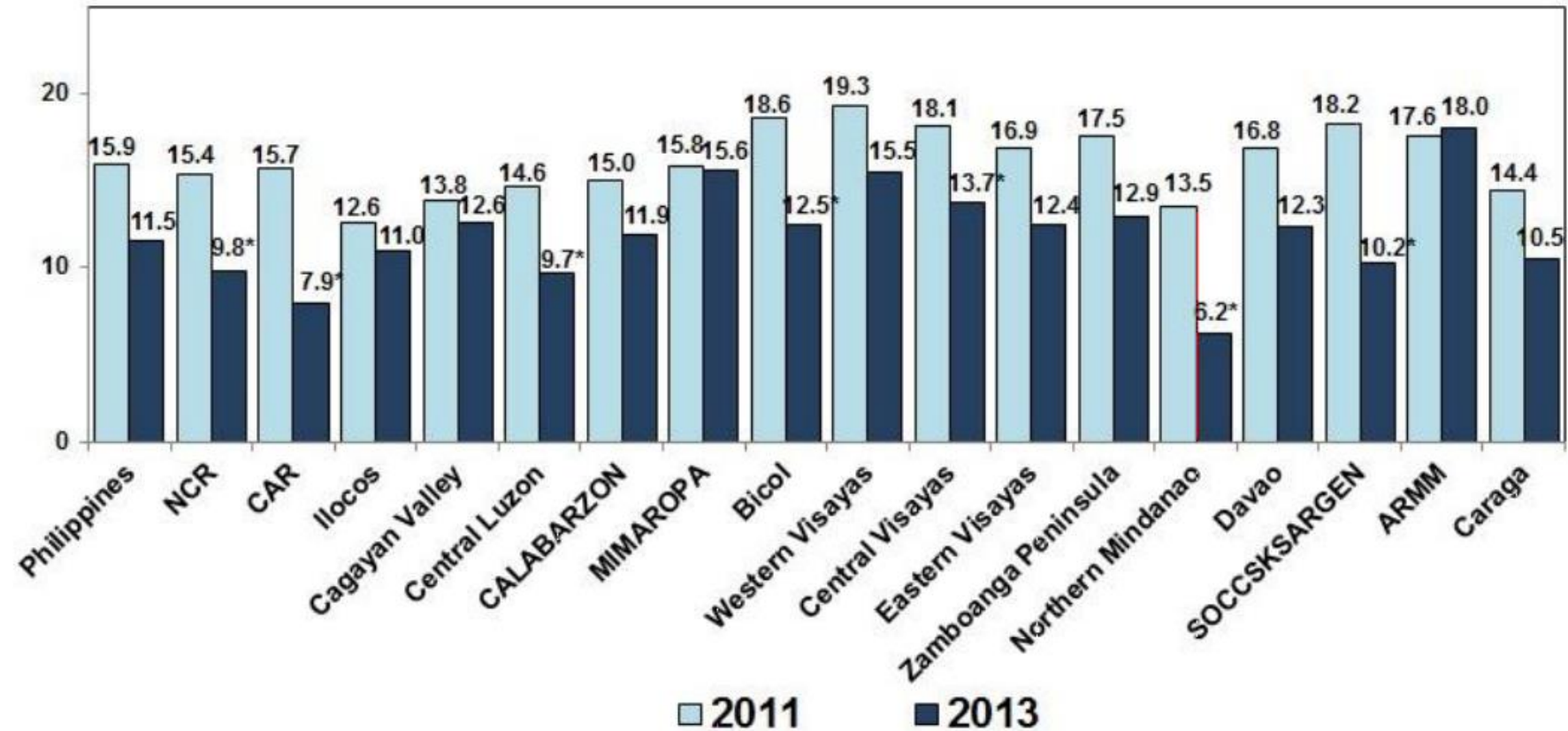
*(Magbitang, 1988)

TRENDS IN THE PREVALENCE OF **NUTRITIONALLY-AT-RISK** PREGNANT WOMEN, Philippines VS CALABARZON



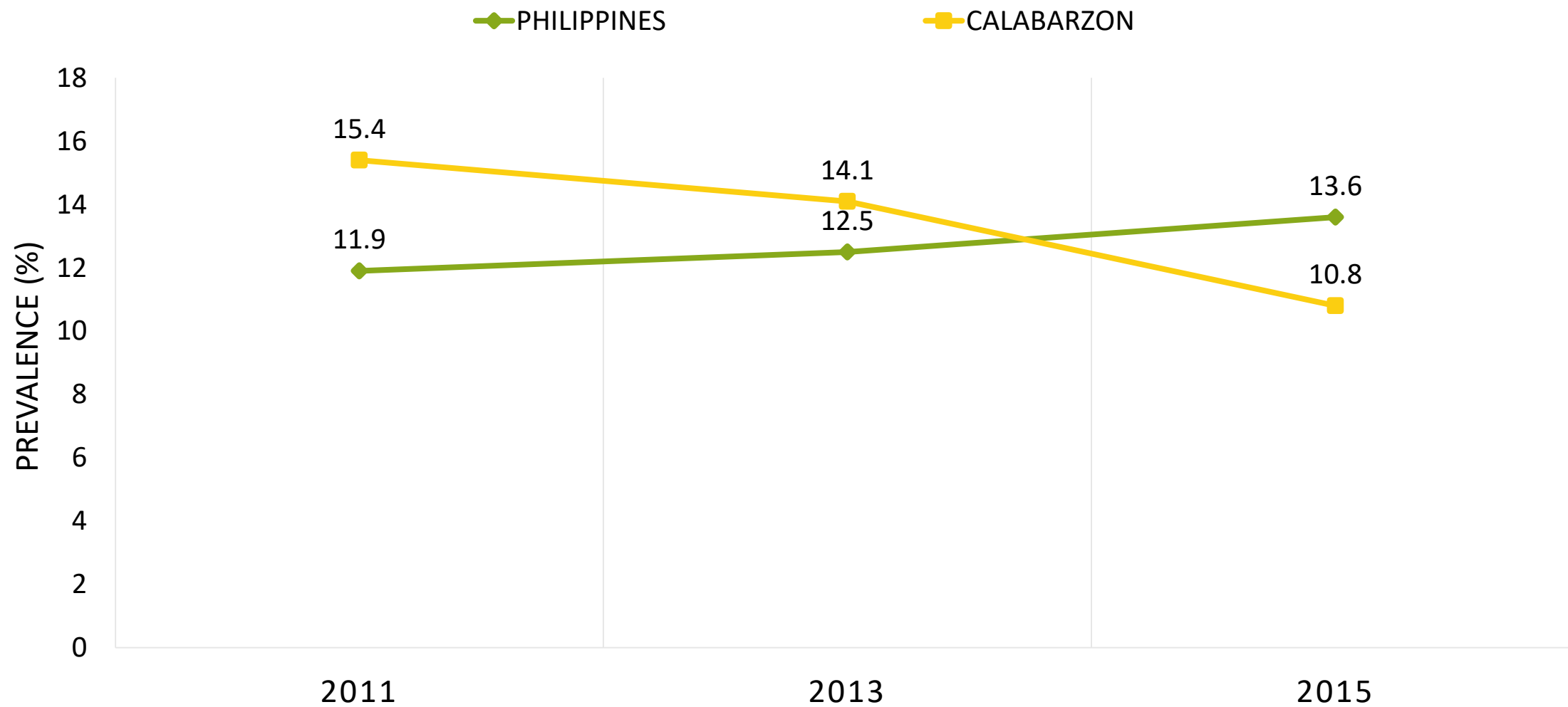
SOURCE: FNRI-DOST NNS, 2015

PREVALENCE OF **LOW BIRTH WEIGHT** AMONG YOUNG CHILDREN, 0-3.9
YEARS OLD BY REGION, PHILIPPINES



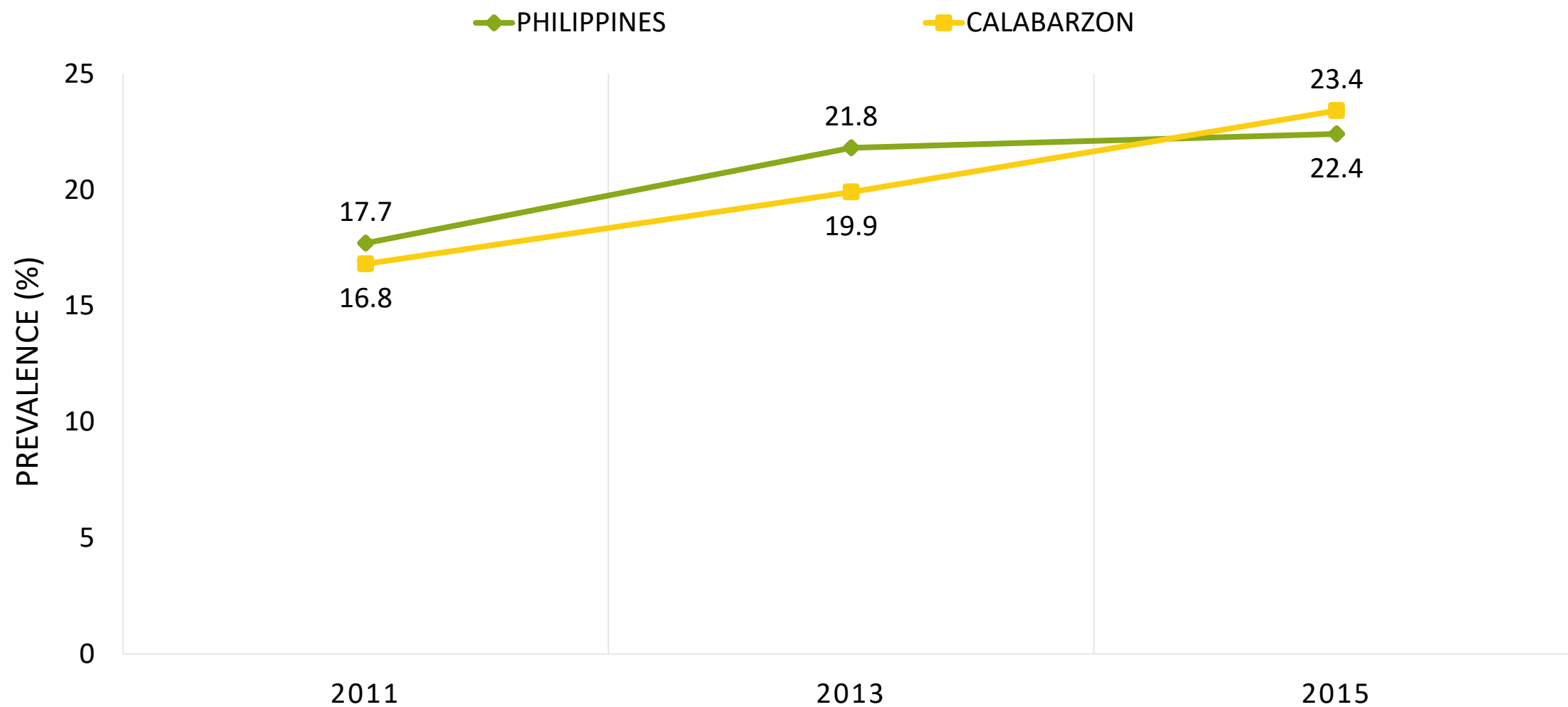
*Significant between 2011 and 2013 at $p\text{-value} \leq 0.05$

TRENDS IN THE PREVALENCE OF **CHRONIC ENERGY DEFICIENCY** AMONG LACTATING MOTHERS, PHILIPPINES VS CALABARZON



SOURCE: FNRI-DOST NNS, 2015

TRENDS IN THE PREVALENCE OF **OVERWEIGHT/OBESITY** AMONG LACTATING MOTHERS, PHILIPPINES VS. CALABARZON



SOURCE: FNRI-DOST NNS, 2015

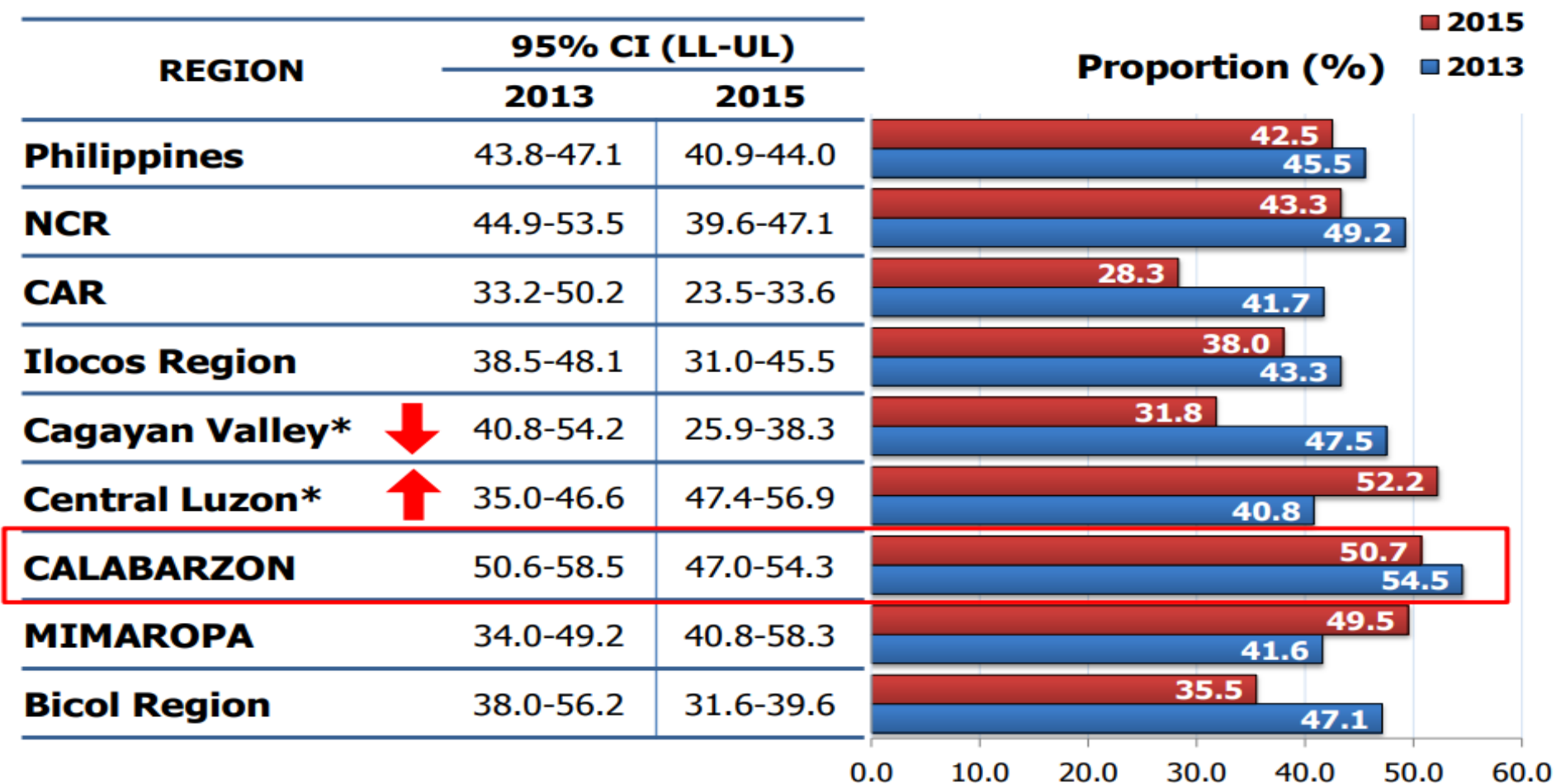


IMMEDIATE CAUSES

PHYSICAL INACTIVITY

Image from The Pinoy Warrior

Proportion of insufficiently physically active adults, 20.0 years and over, with 95% CI, by region: Philippines, 2013-2015



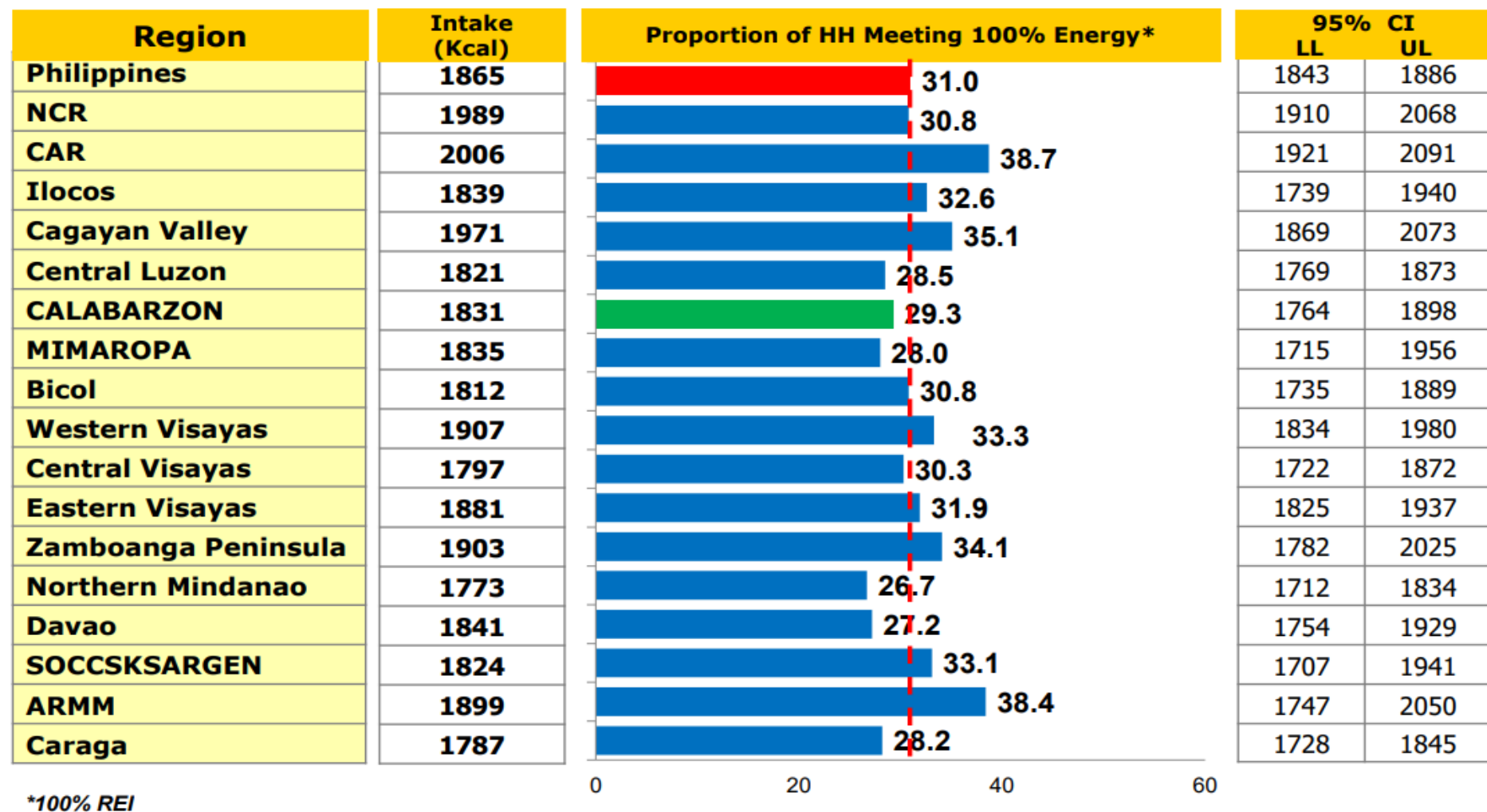


IMMEDIATE CAUSES

DIETARY INTAKE

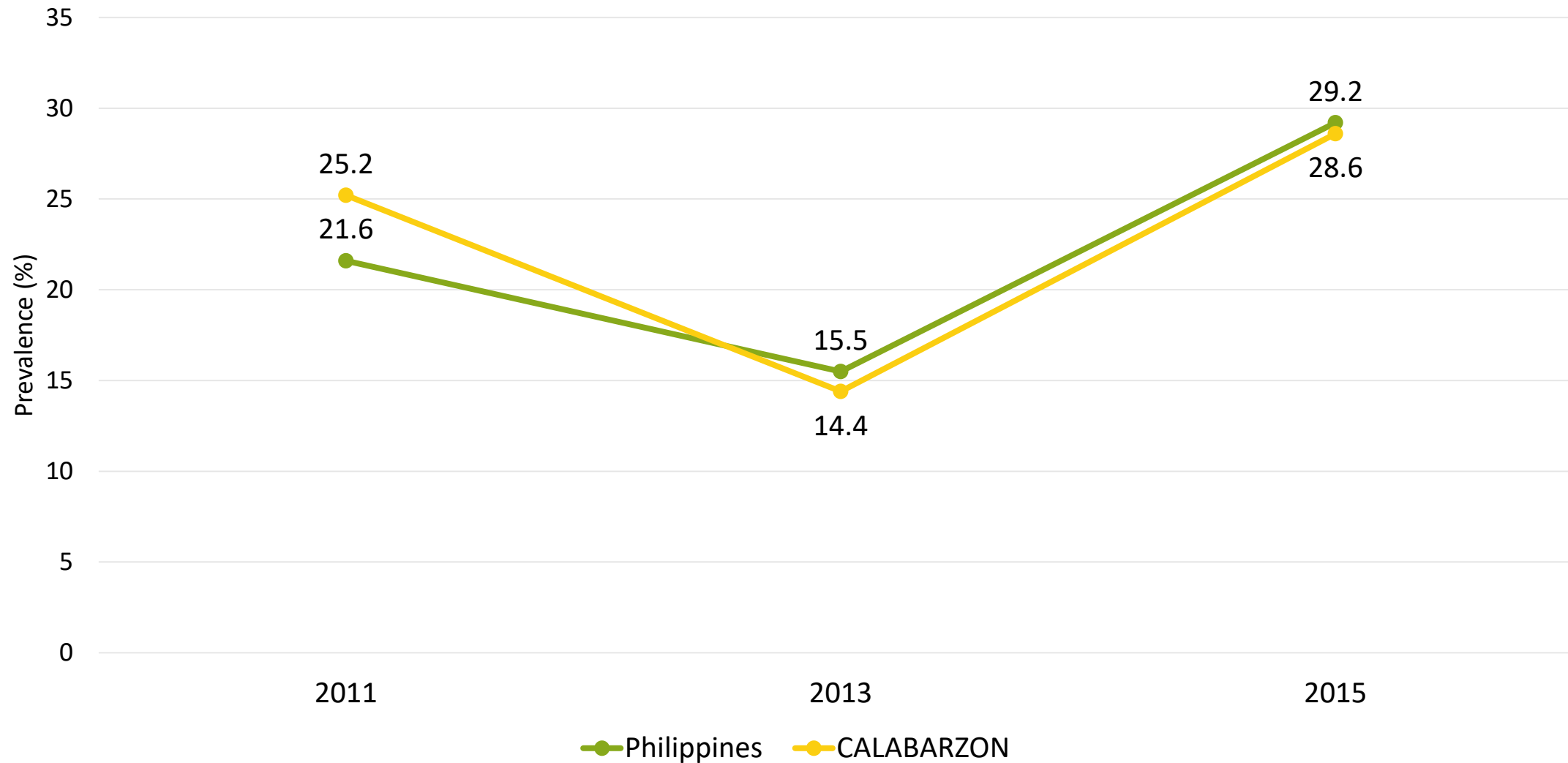
Image from Greenpeace USA

Mean one-day per capita **energy** intake and proportion of household meeting REI for energy by **region**: Philippines, 2015

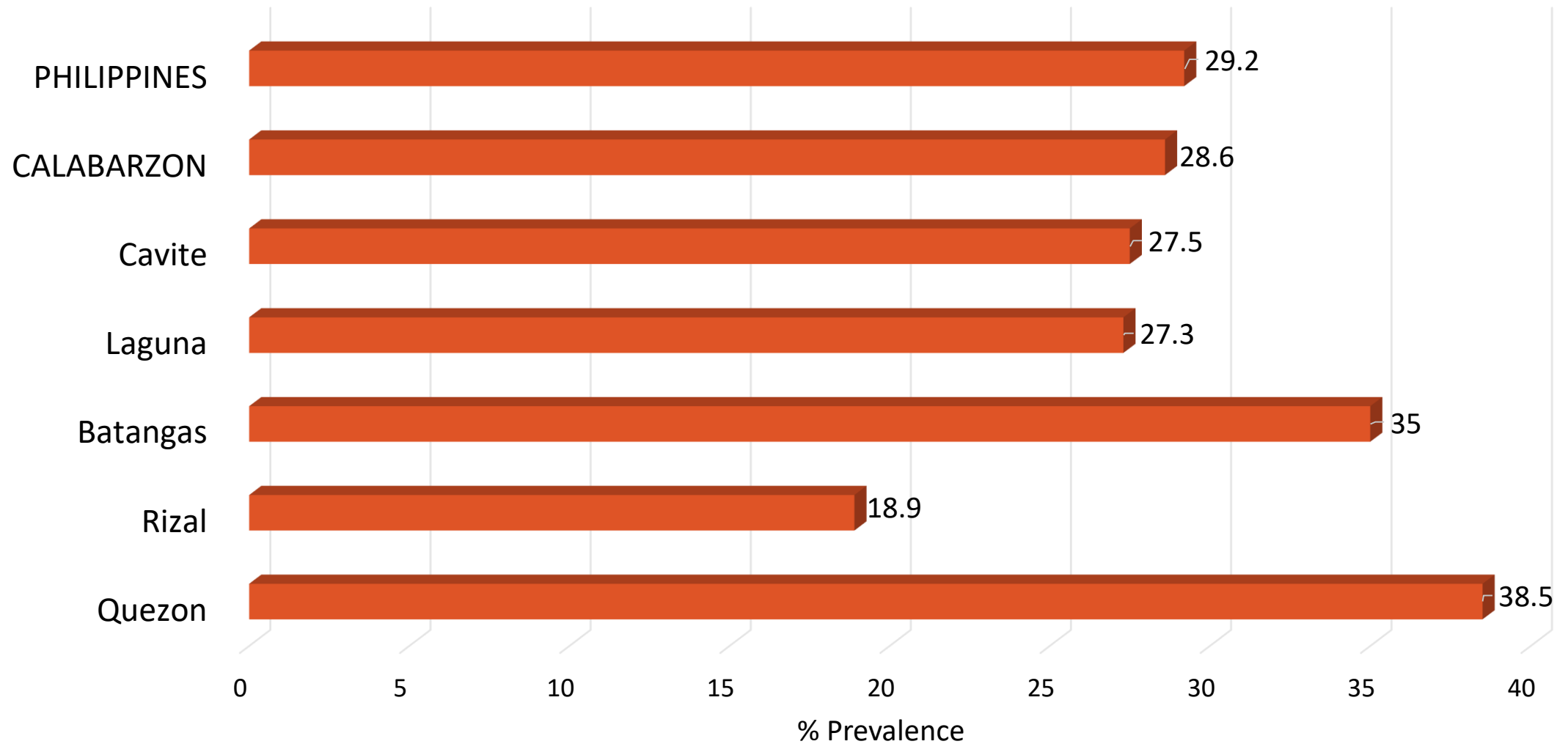


SOURCE: FNRI-DOST NNS, 2015

TRENDS IN **MINIMUM DIET DIVERSITY** FOR 6-23 MONTHS, PHILIPPINES VS CALABARZON

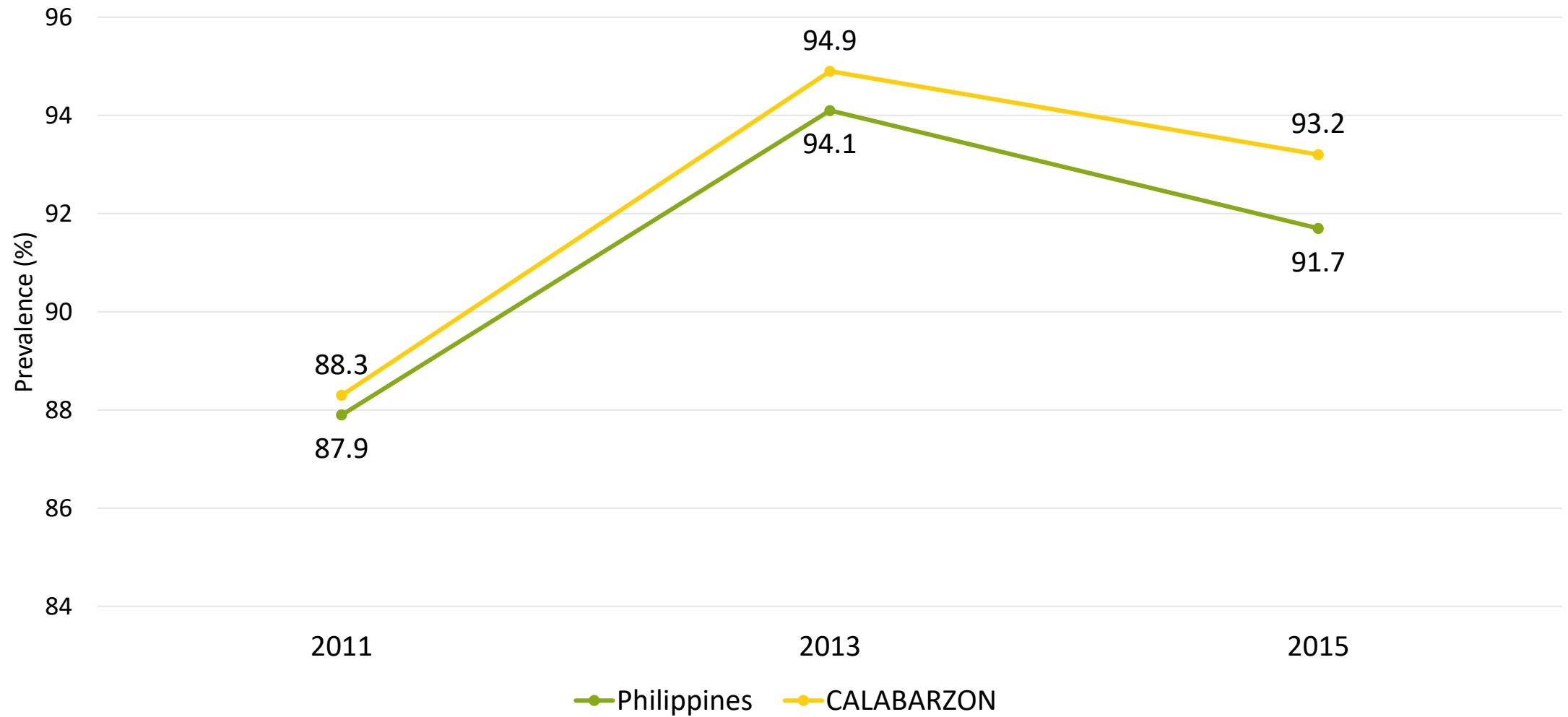


PERCENTAGE OF CHILDREN 6-23 MONTHS MEETING **MINIMUM DIET DIVERSITY**,
CALABARZON AND PROVINCES



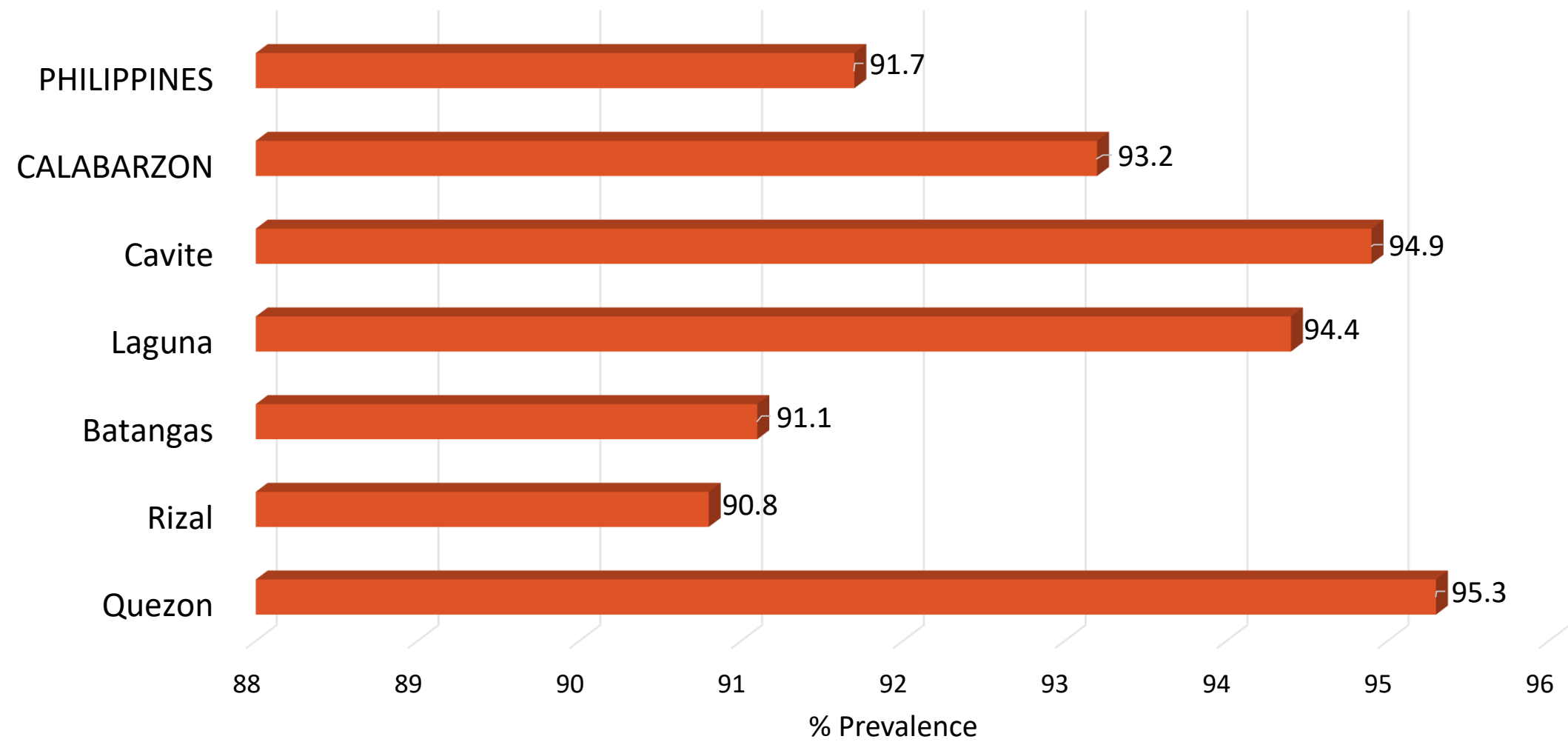
SOURCE: FNRI-DOST NNS, 2015

TRENDS IN **MINIMUM MEAL FREQUENCY** FOR 6-23 MONTHS, PHILIPPINES VS CALABARZON



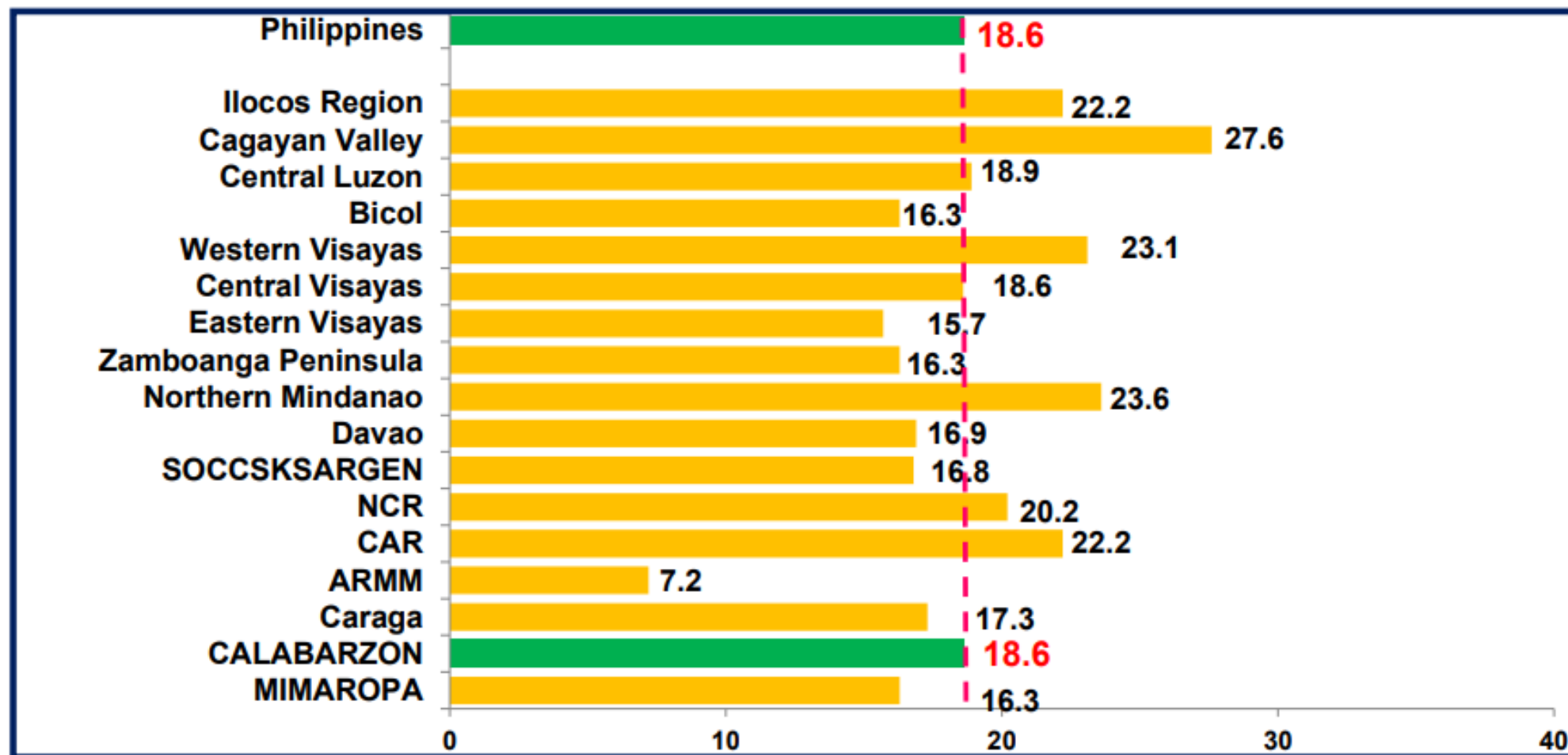
SOURCE: FNRI-DOST NNS, 2015

PERCENTAGE OF CHILDREN 6-23 MONTHS MEETING **MINIMUM MEAL
FREQUENCY**, CALABARZON AND PROVINCES



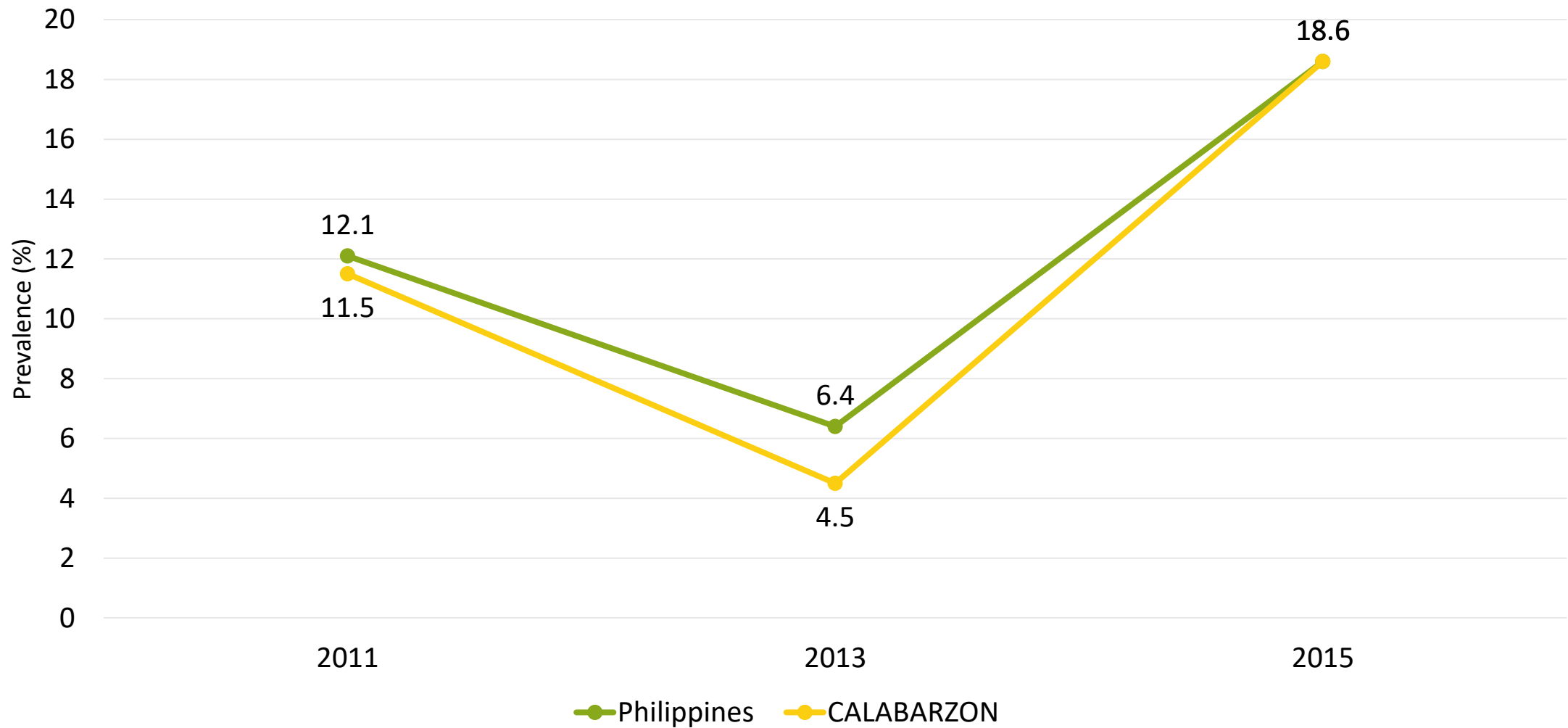
SOURCE: FNRI-DOST NNS, 2015

PERCENTAGE OF CHILDREN 6-23 MONS MEETING **MINIMUM ACCEPTABLE**
DIET BY REGION, PHILIPPINES

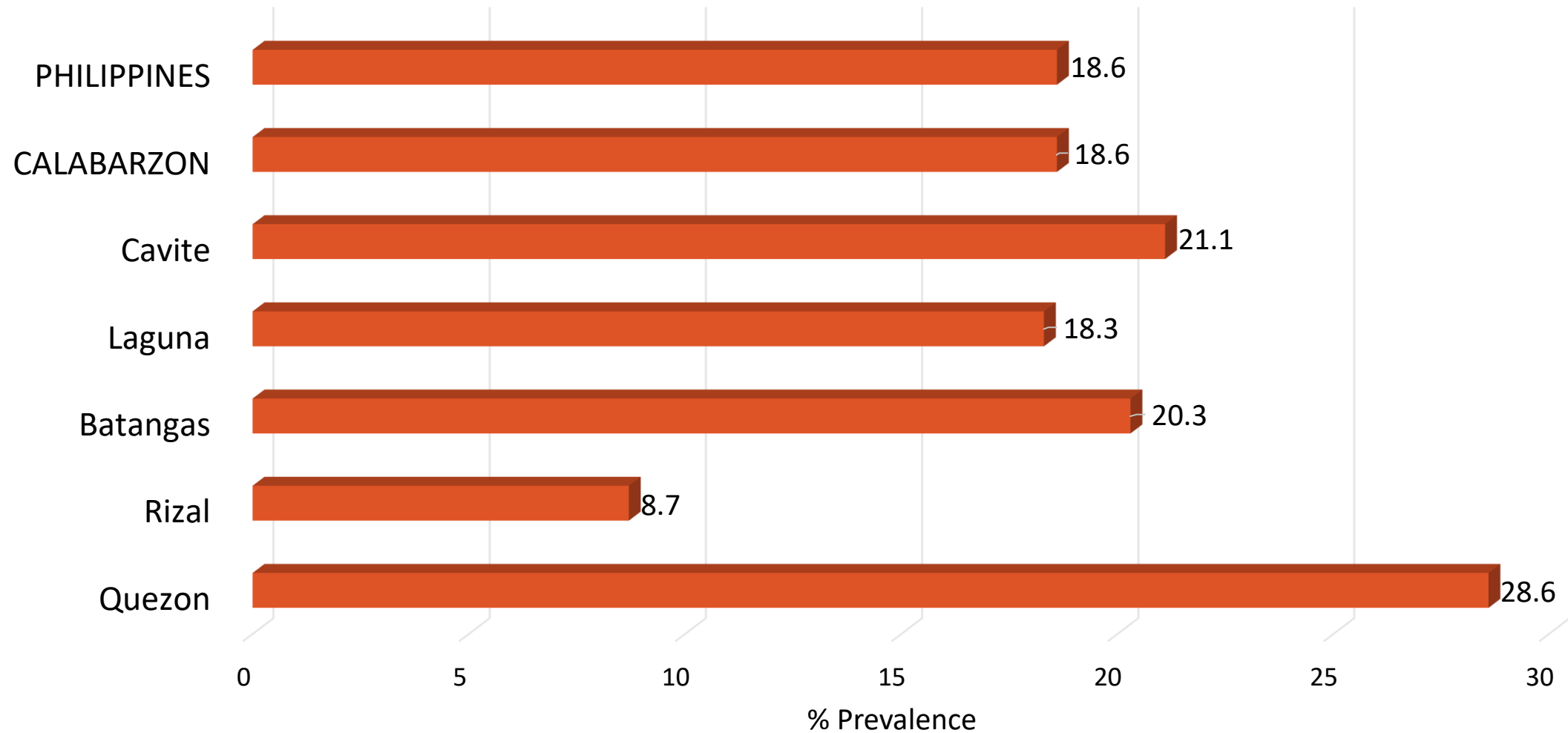


SOURCE: FNRI-DOST NNS, 2015

Trends in **MINIMUM ACCEPTABLE DIET** for 6-23 months, PHILIPPINES VS CALABARZON



PERCENTAGE OF CHILDREN 6-23 MONTHS MEETING **MINIMUM ACCEPTABLE**
DIET, CALABARZON AND PROVINCES



SOURCE: FNRI-DOST NNS, 2015

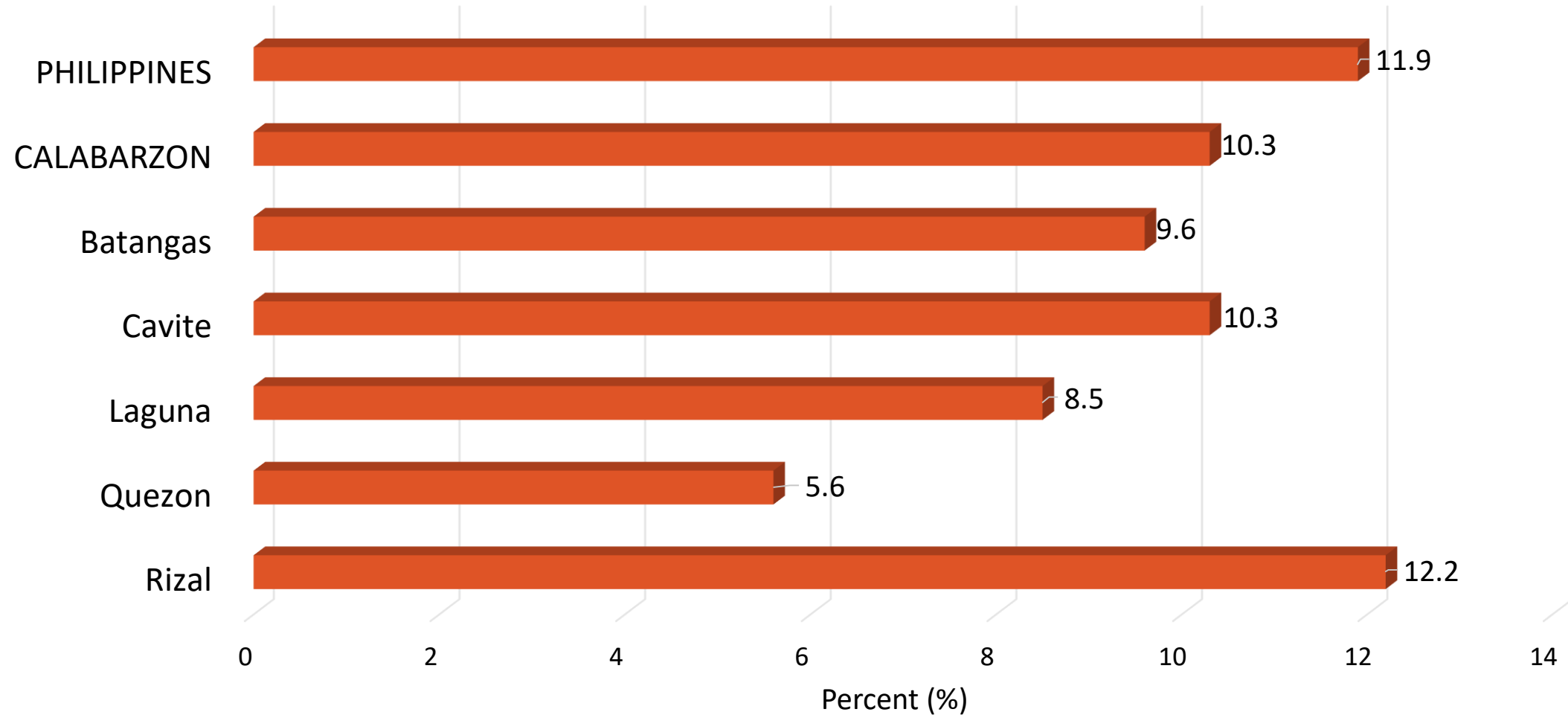


IMMEDIATE CAUSES

DISEASE

Image from Rouelle Umali

PERCENT OF CHILDREN 0-59 MONTHS WHO **EXPERIENCED DIARRHEA** IN
CALABARZON AND PROVINCES



SOURCE: FNRI-DOST NNS, 2015

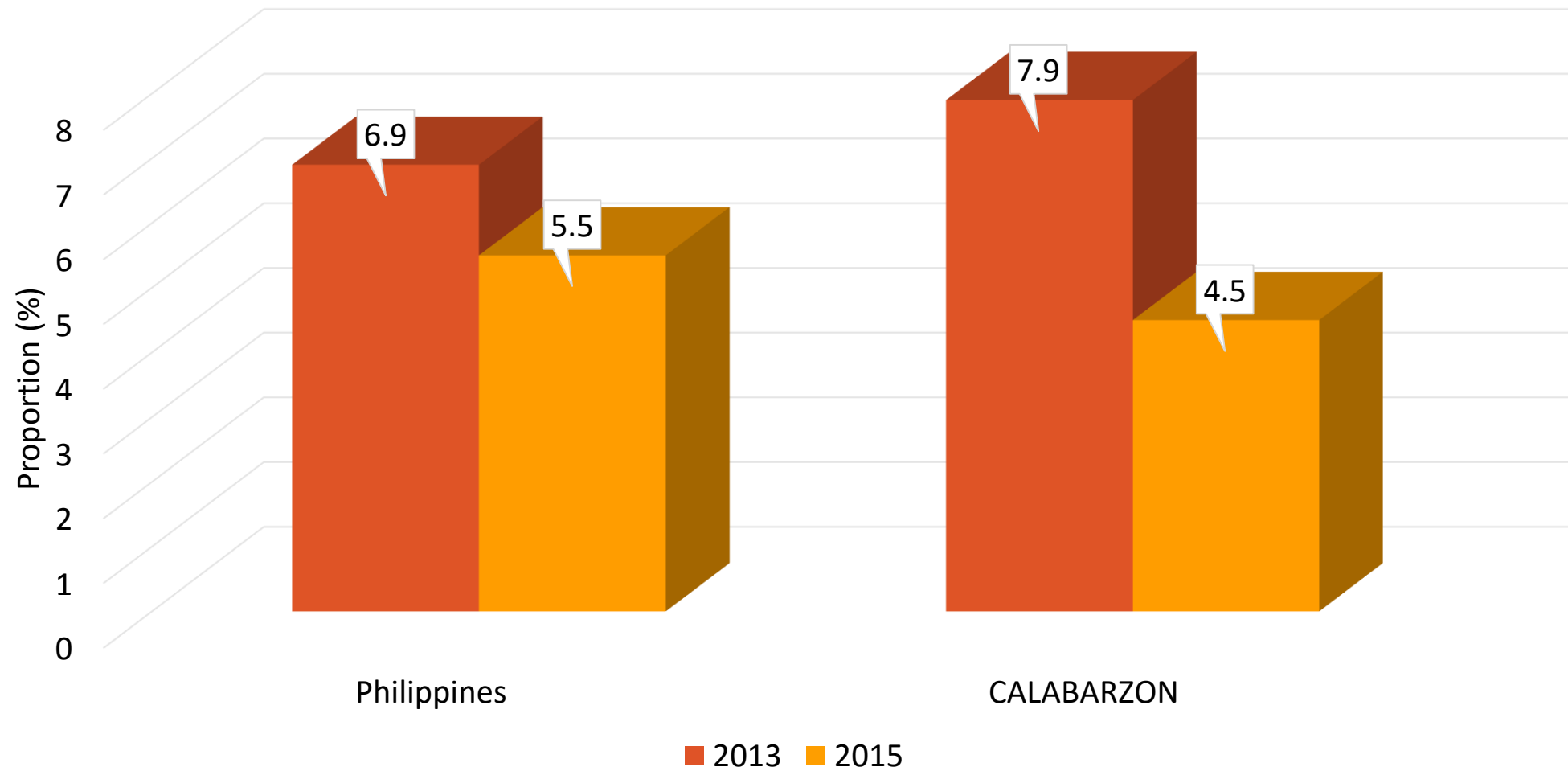


UNDERLYING CAUSES

LIFESTYLE FACTORS
AND BEHAVIORS

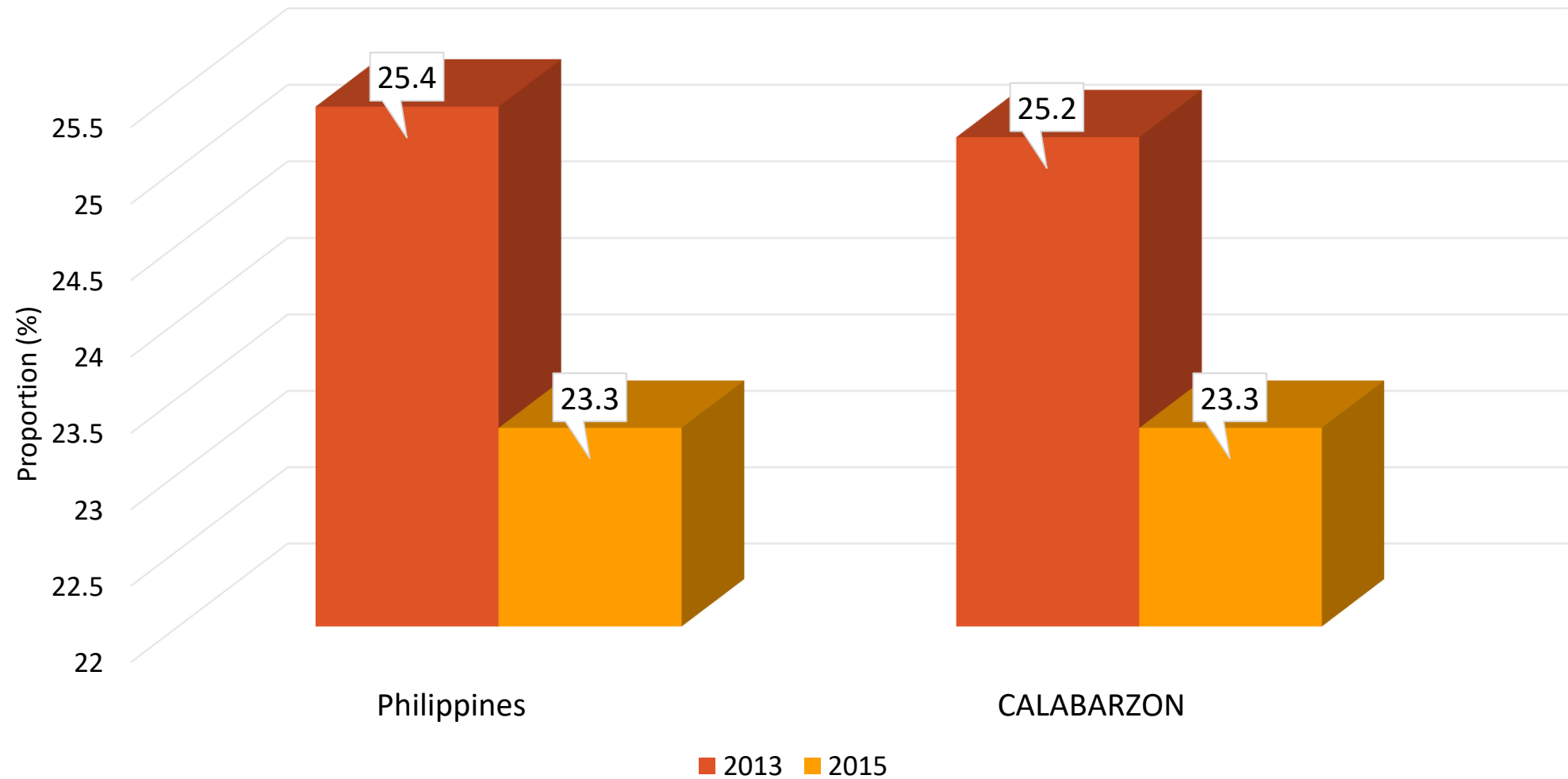
Image from PhilNews

PROPORTION OF **CURRENT SMOKING** AMONG ADOLESCENTS (10-19.9 YEARS).
PHILIPPINES VS CALABARZON



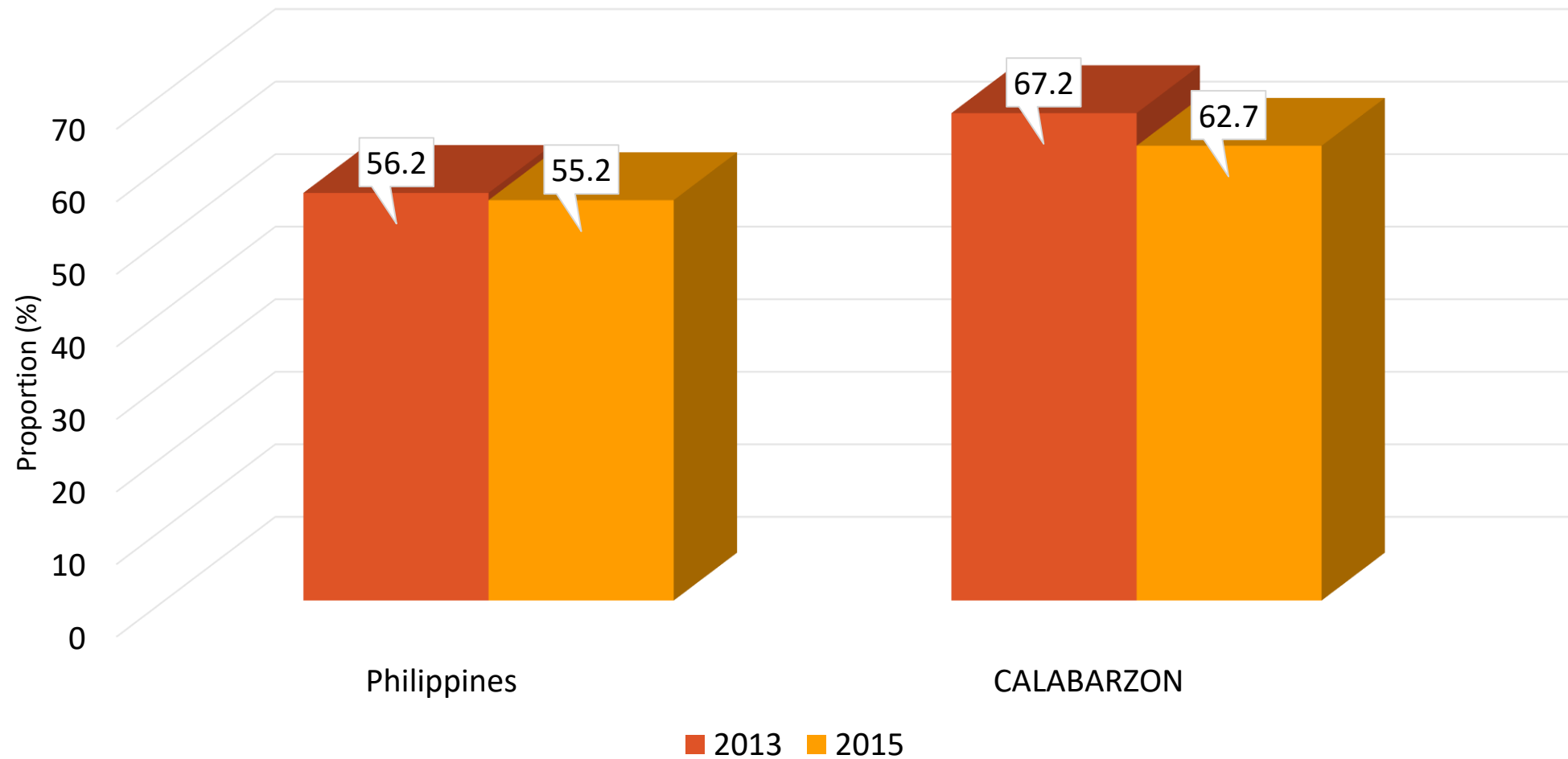
SOURCE: FNRI-DOST NNS, 2015

PROPORTION OF **CURRENT SMOKING** AMONG ADULTS (20 YEARS AND ABOVE),
PHILIPPINES VS CALABARZON



SOURCE: FNRI-DOST NNS, 2015

PROPORTION OF **BINGE DRINKING** AMONG CURRENTLY DRINKING ADULTS (20 YEARS AND ABOVE), PHILIPPINES VS CALABARZON



SOURCE: FNRI-DOST NNS, 2015

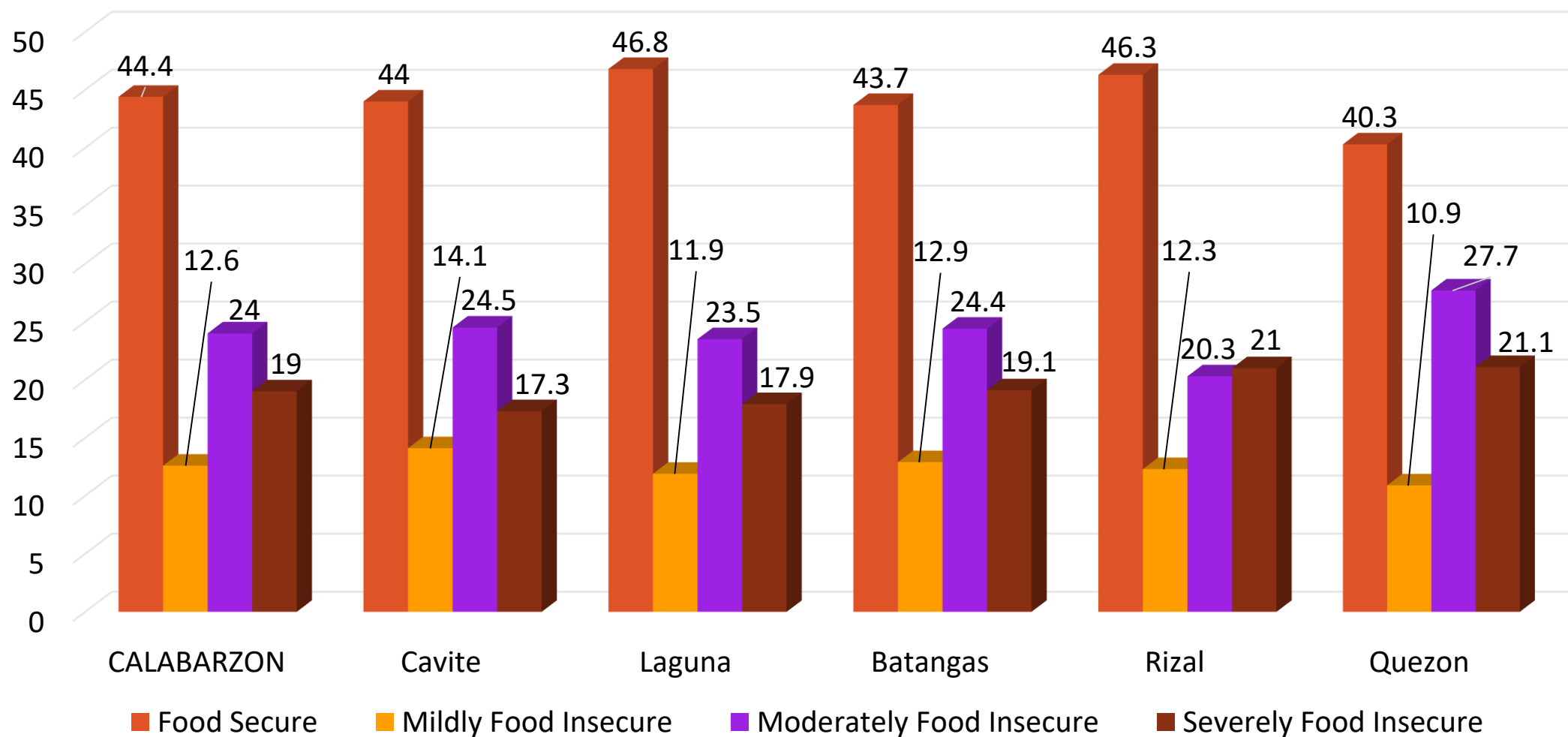


UNDERLYING CAUSES

FOOD SECURITY
STATUS

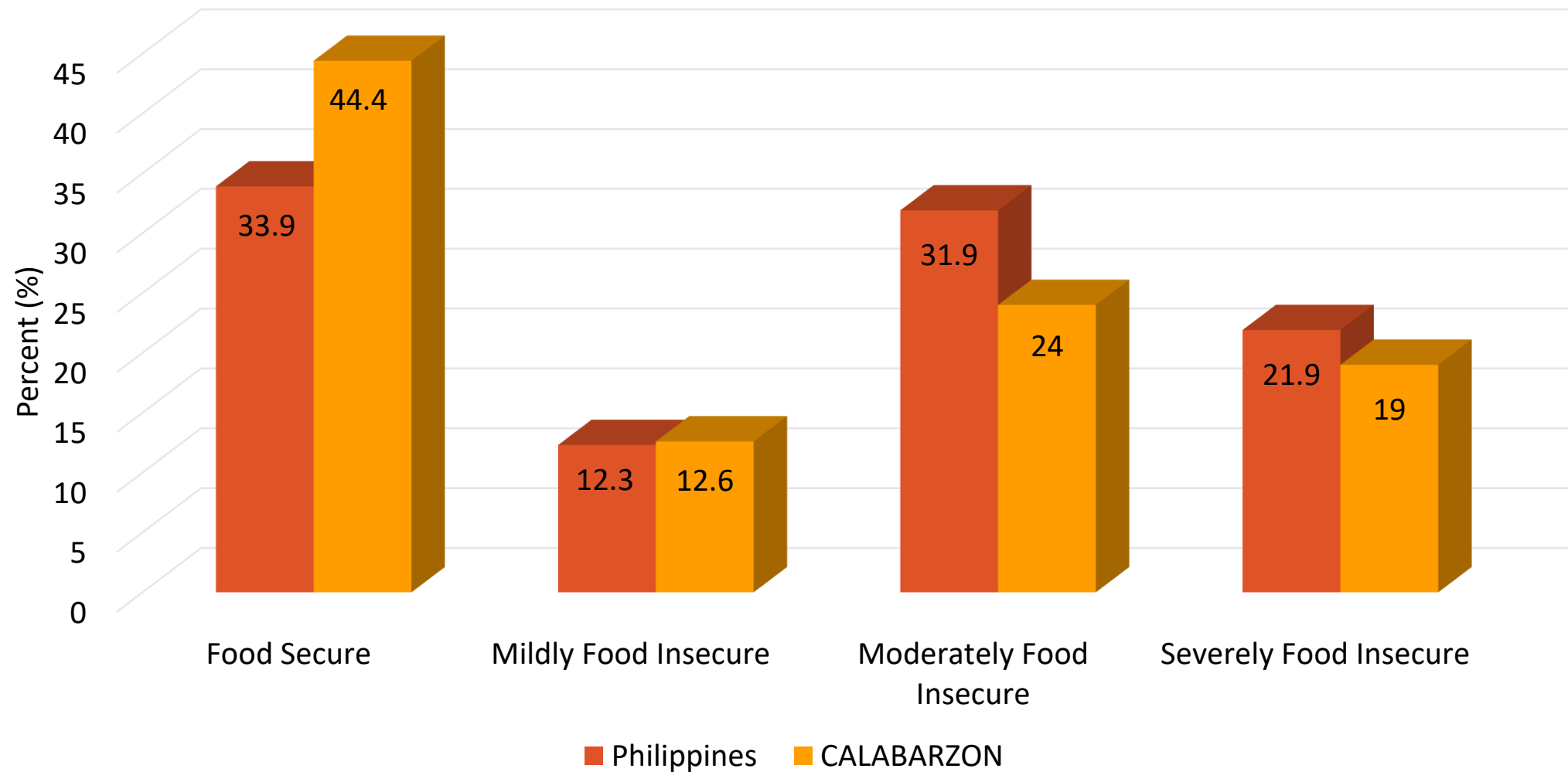
Image from Rappler

PERCENTAGE DISTRIBUTION OF HOUSEHOLDS BY **FOOD SECURITY**, CALABARZON AND PROVINCES



SOURCE: FNRI-DOST NNS, 2015

PERCENTAGE DISTRIBUTION OF HOUSEHOLDS BY **FOOD SECURITY STATUS**, PHILIPPINES VS CALABARZON



SOURCE: FNRI-DOST NNS, 2015



UNDERLYING CAUSES

CARE, FEEDING
PRACTICES AND
BEHAVIORS

Image from Rappler

Coverage of selected services within the First 100 days period,
Philippines VS. CALABARZON

Selected Indicators of Services and Care during the F1K	Philippines	CALABARZON	Source of Data
Exclusive breastfeeding (0-5 months)	24.7	32.4	NNS, 2015
Mean duration of exclusive breastfeeding (in months)	4.2	4	NNS, 2015
Mean duration of breastfeeding (in months)	8.3	7.6	NNS, 2015
Breastfeeding with complementary feeding of 6-11 months	57.7	54.4	NNS, 2015
Breastfeeding with complementary feeding of 12-23 months	43.1	37.2	NNS, 2015

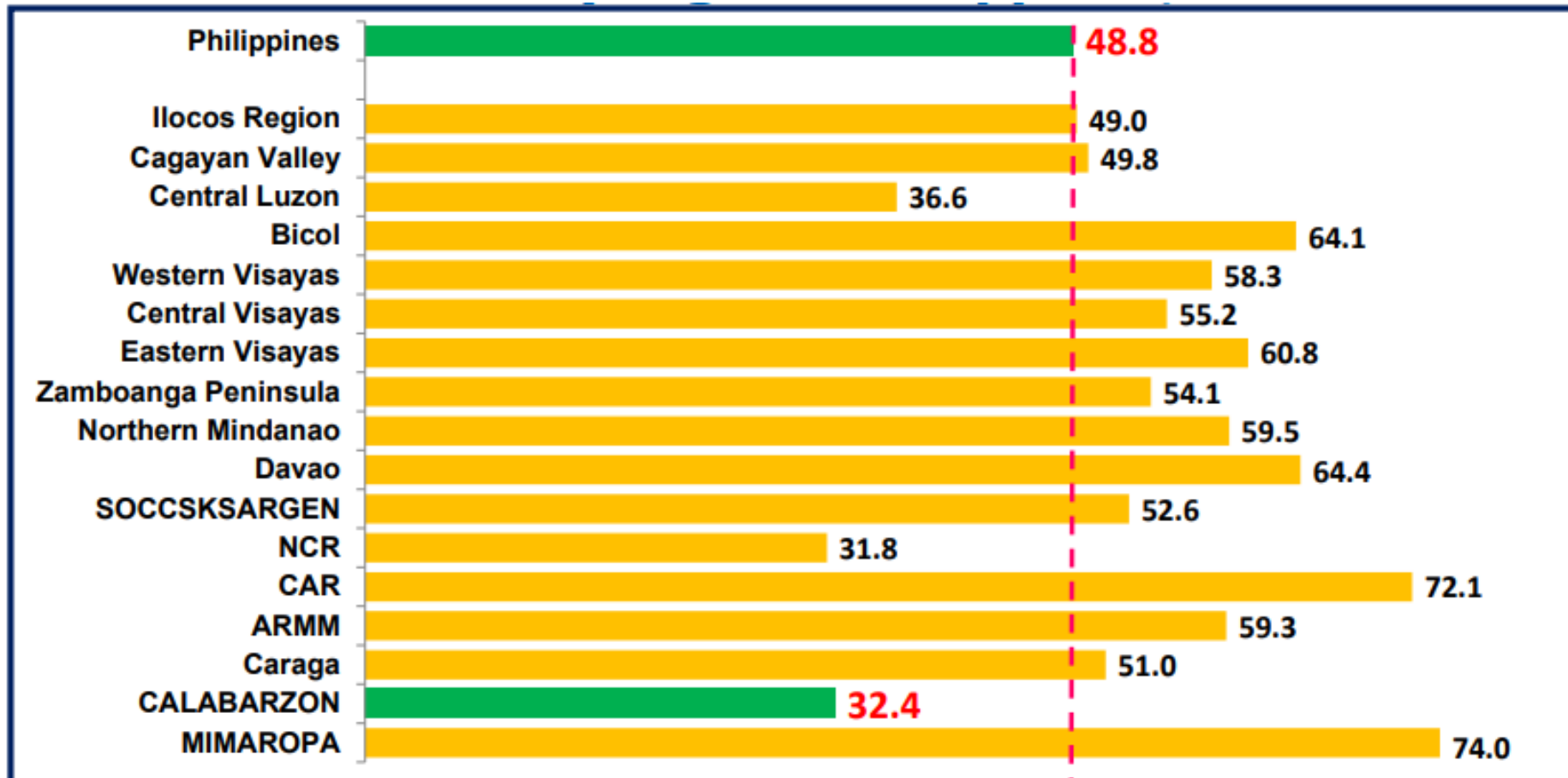
Coverage of selected services within the First 100 days period,
Philippines VS. CALABARZON

Selected Indicators of Services and Care during the F1K	Philippines	CALABARZON	Source of Data
Percent of mothers with on time (1 st trimester) first prenatal check-up during their last/current pregnancy	69.5	71.6	NNS, 2015
Proportion of pregnant women with four or more prenatal visits (%)	53.5	39.44	FHSIS, 2015
Proportion of pregnant women given complete iron with folic acid supplements (%)	47.22	37.21	FHSIS, 2015

Coverage of selected services within the First 100 days period,
Philippines VS. CALABARZON

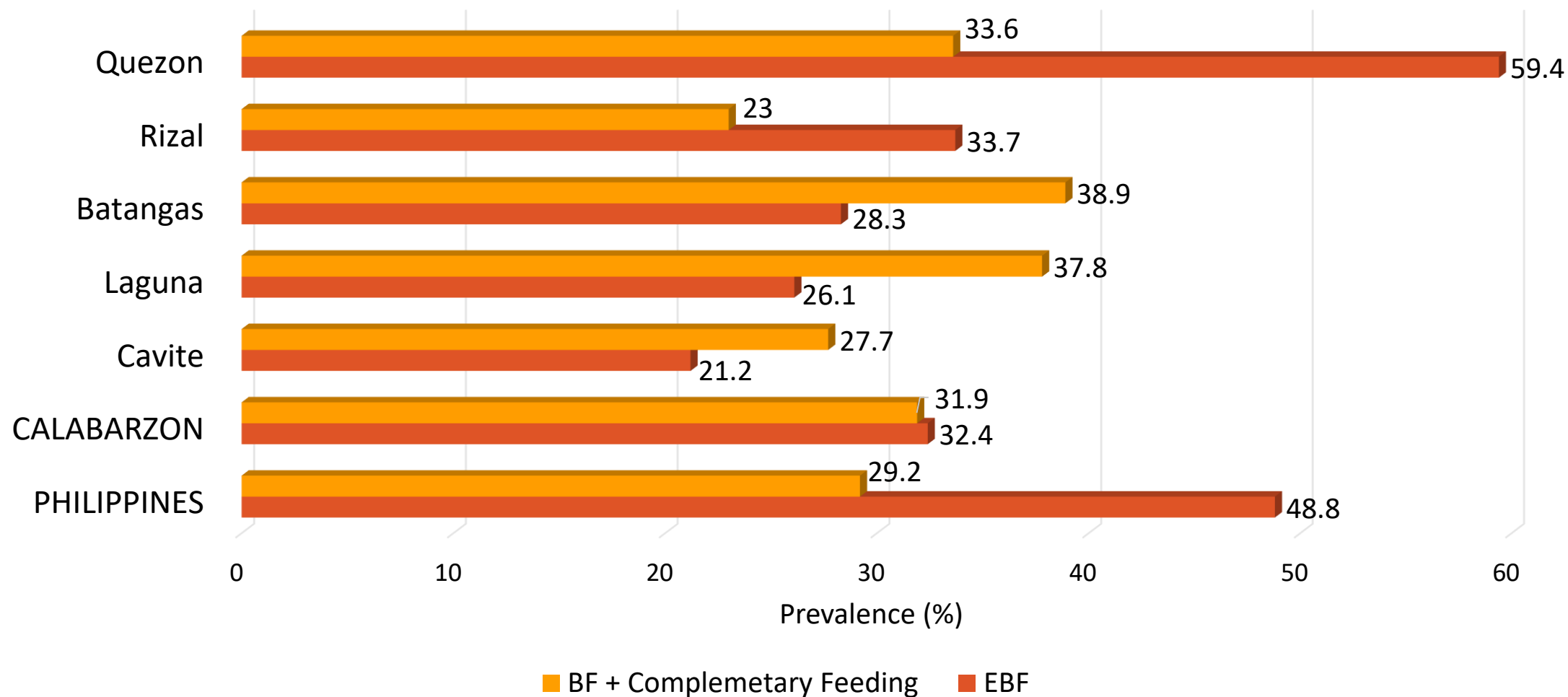
Selected Indicators of Services and Care during the F1K	Philippines	CALABARZON	Source of Data
Percentage of women receiving two or more tetanus toxoid injections during last pregnancy	28.1	21.78	FHSIS, 2015
Percentage of births delivered in health facility	85.5	84.06	FHSIS, 2015
Percentage of children 6-23 months meeting the Minimum Acceptable Diet	18.6	18.6	NNS, 2015

PERCENTAGE DISTRIBUTION OF **EXCLUSIVELY BREASTFED** 0-5 MONTHS OLD BY REGION, PHILIPPINES



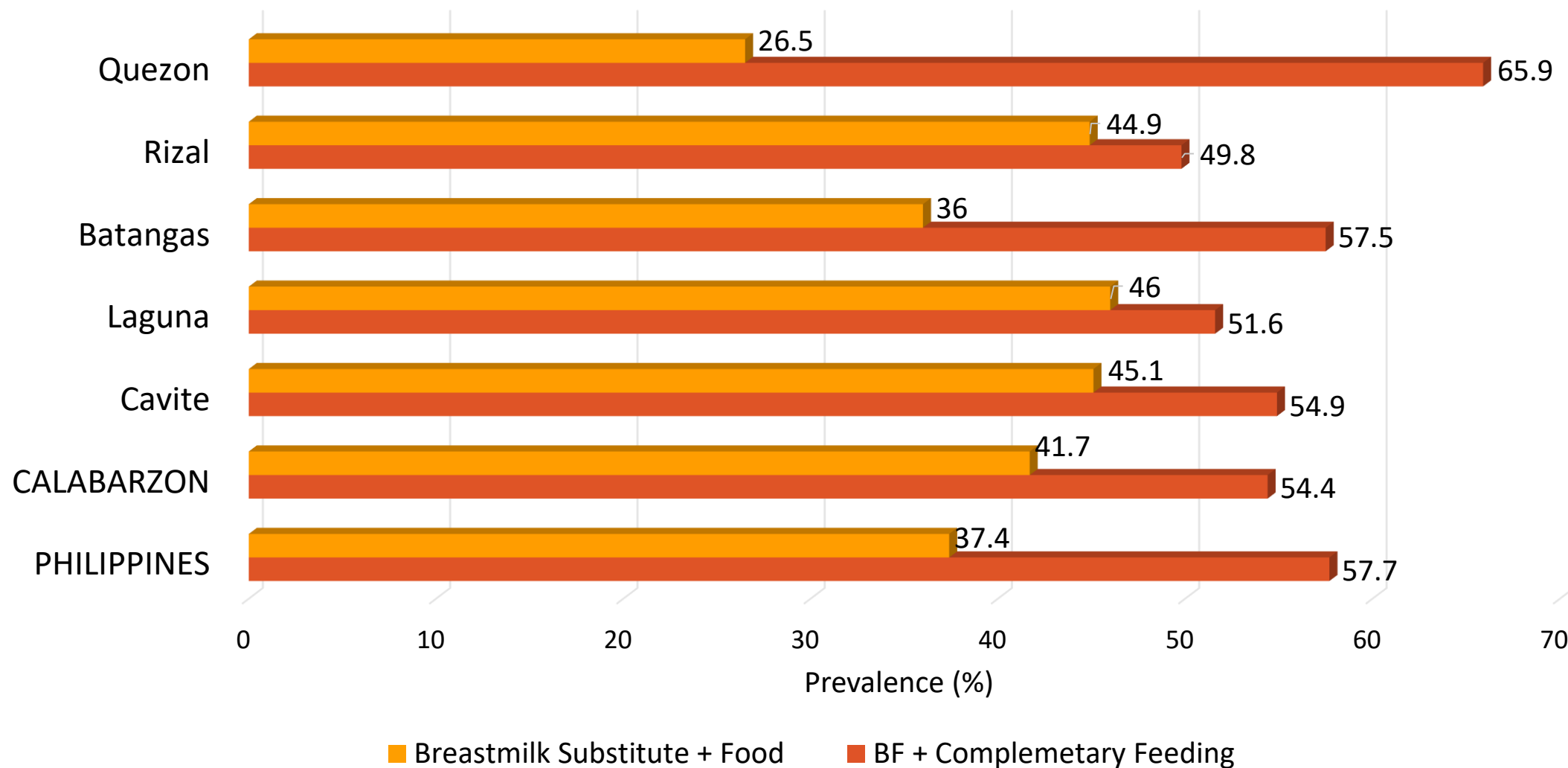
SOURCE: FNRI-DOST NNS, 2015

PERCENTAGE OF **EXCLUSIVELY BREASTFEEDING** AND **BREASTFEEDING WITH COMPLEMENTARY FEEDING** AMONG 0-5 MONTHS CHILDREN, CALABARZON AND PROVINCES



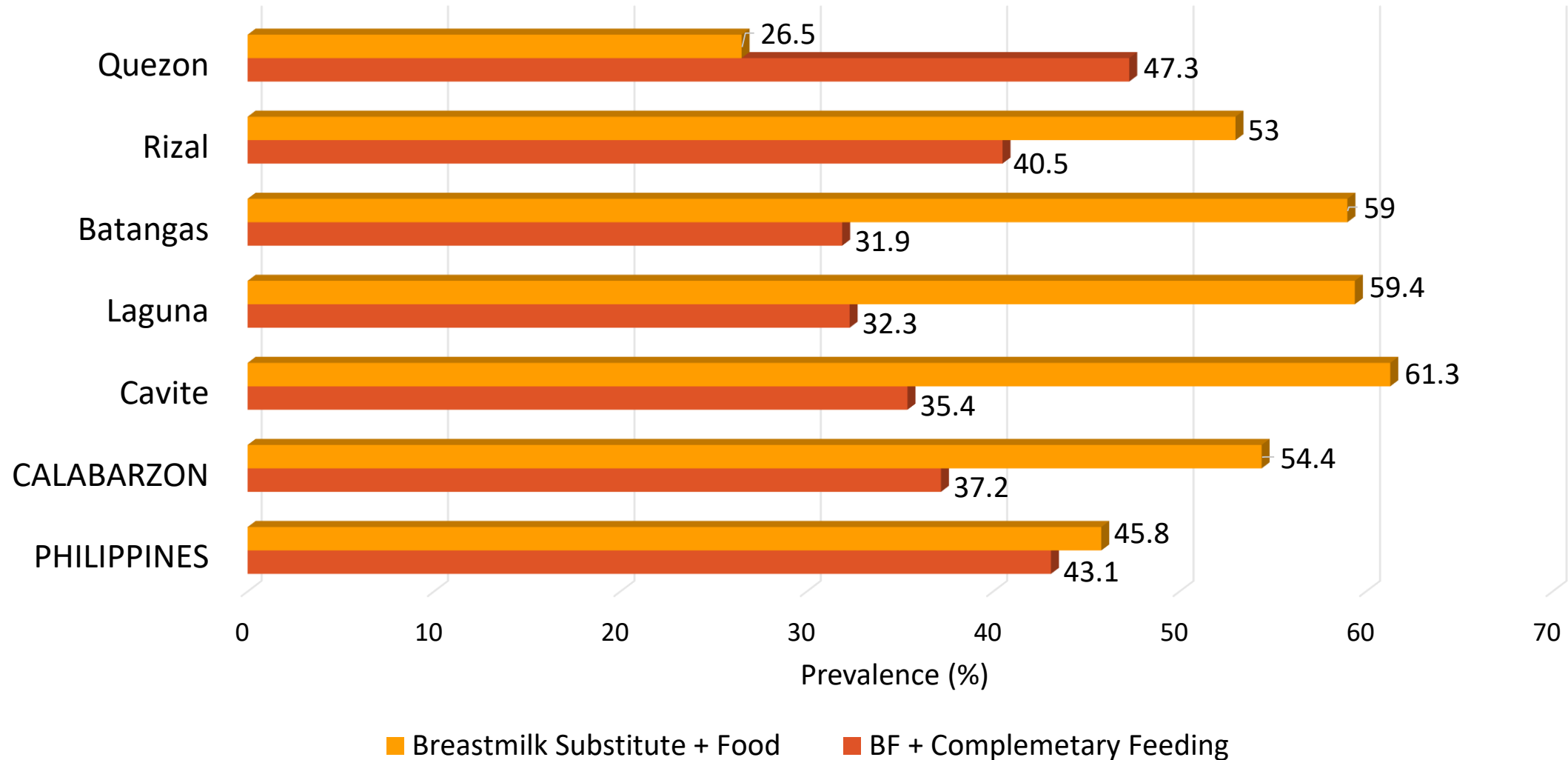
SOURCE: FNRI-DOST NNS, 2015

PERCENTAGE OF **BREASTFEEDING WITH COMPLEMENTARY FEEDING** AND
BREASTMILK SUBSTITUTE WITH FOOD AMONG 6-11 MONTHS CHILDREN



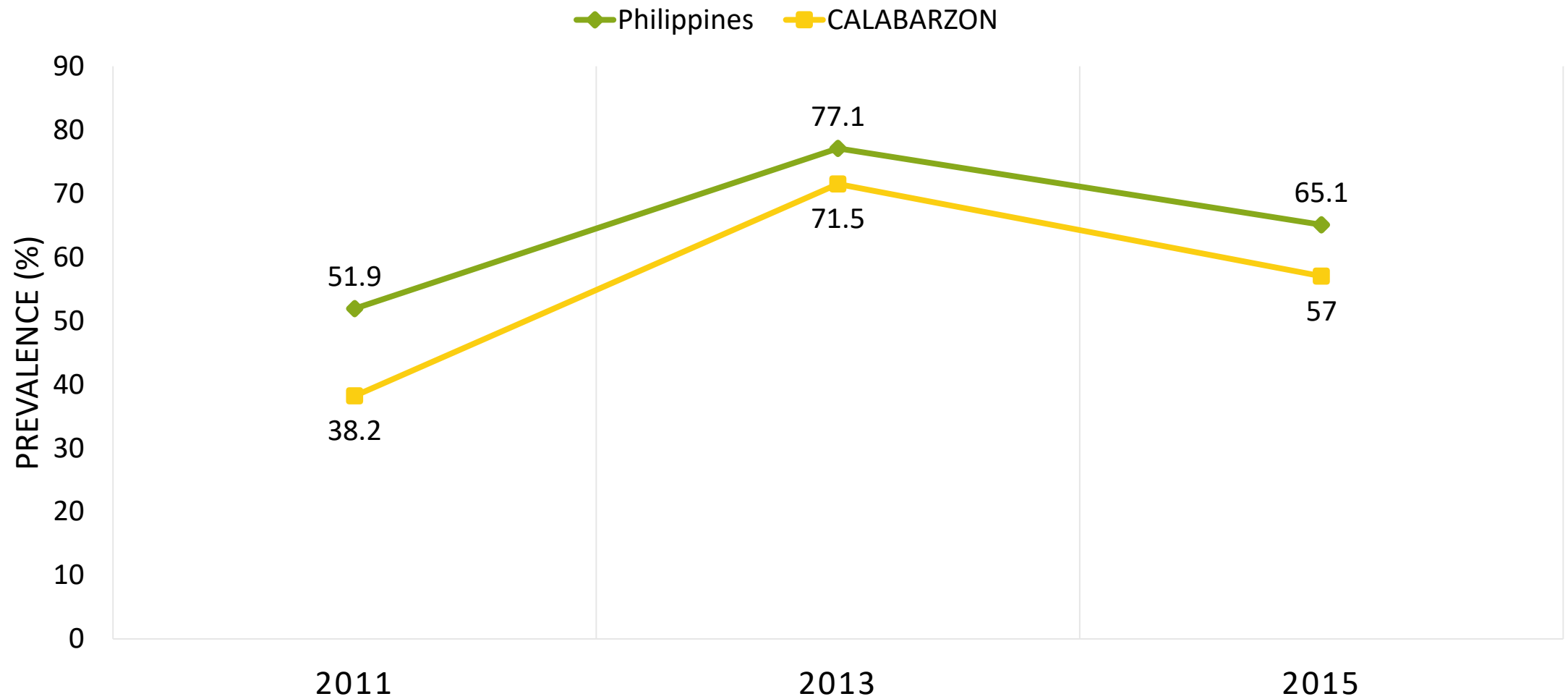
SOURCE: FNRI-DOST NNS, 2015

PERCENTAGE OF **BREASTFEEDING WITH COMPLEMENTARY FEEDING** AND **BREASTMILK SUBSTITUTE WITH FOOD** AMONG 12-23 MONTHS CHILDREN



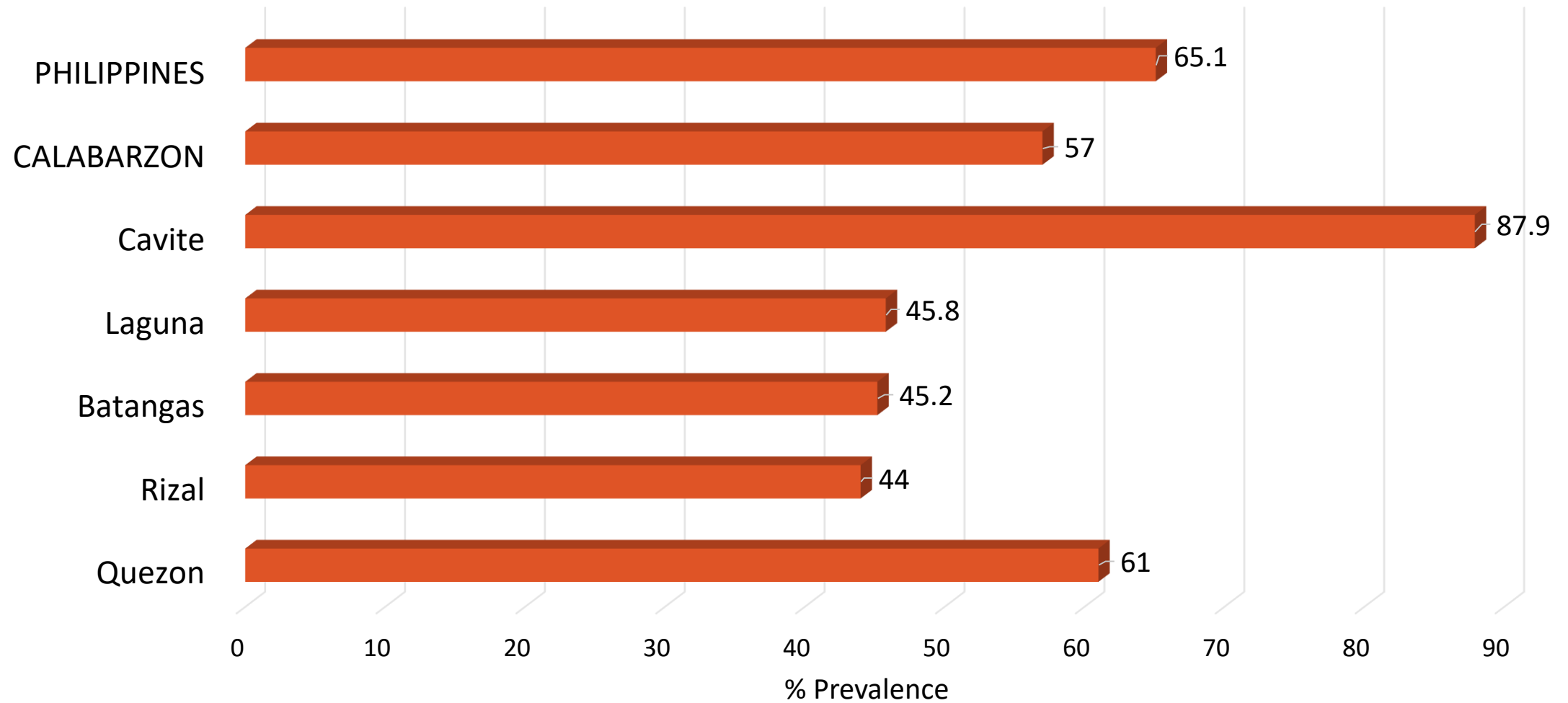
SOURCE: FNRI-DOST NNS, 2015

TRENDS OF CHILDREN 0-23 MONTHS INITIATED TO **BREASTFEEDING**
WITHIN 1 HOUR AFTER DELIVERY, PHILIPPINES VS CALABARZON



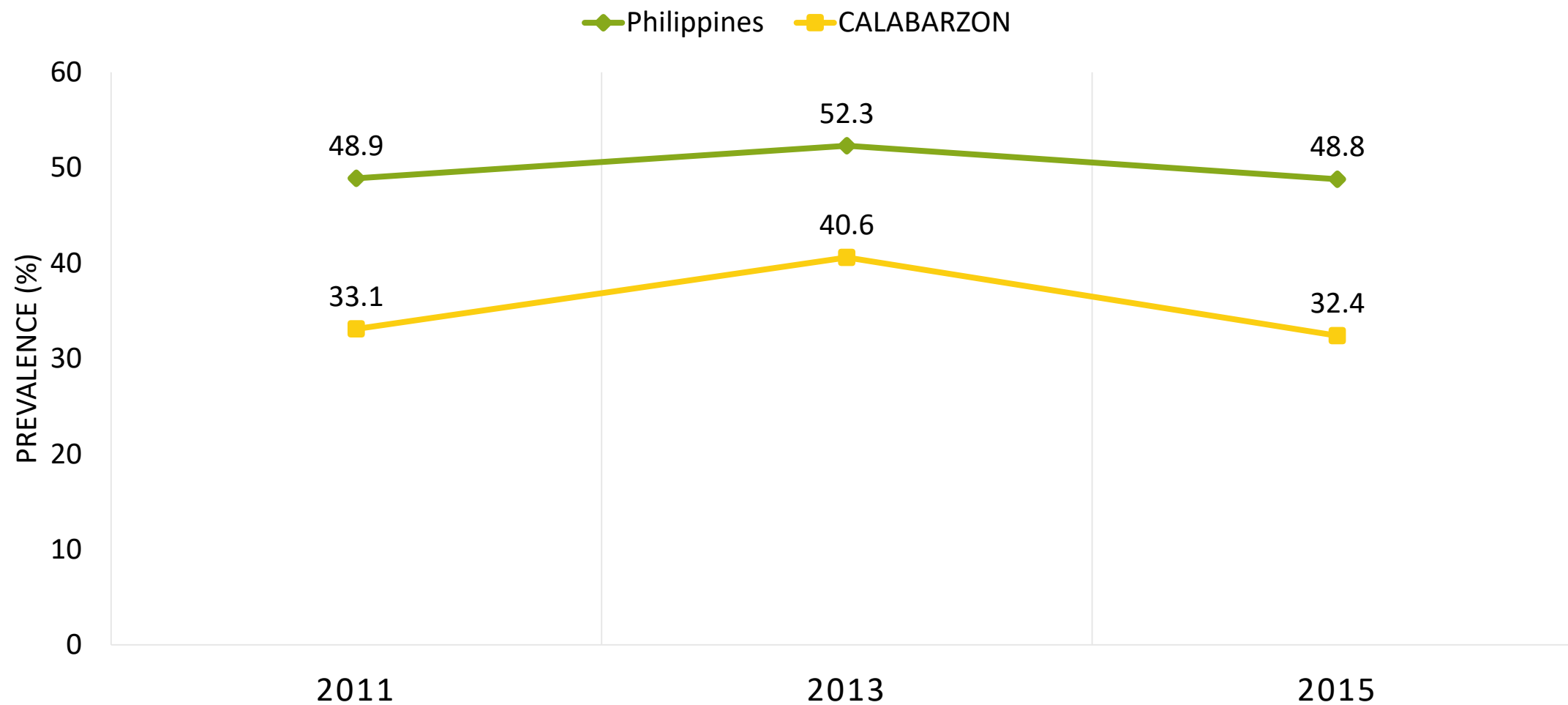
SOURCE: FNRI-DOST NNS, 2015

PREVALENCE OF CHILDREN 0-23 MONTHS **INITIATED TO BREASTFEEDING**
WITHIN 1 HOUR AFTER DELIVERY, CALABARZON AND PROVINCES



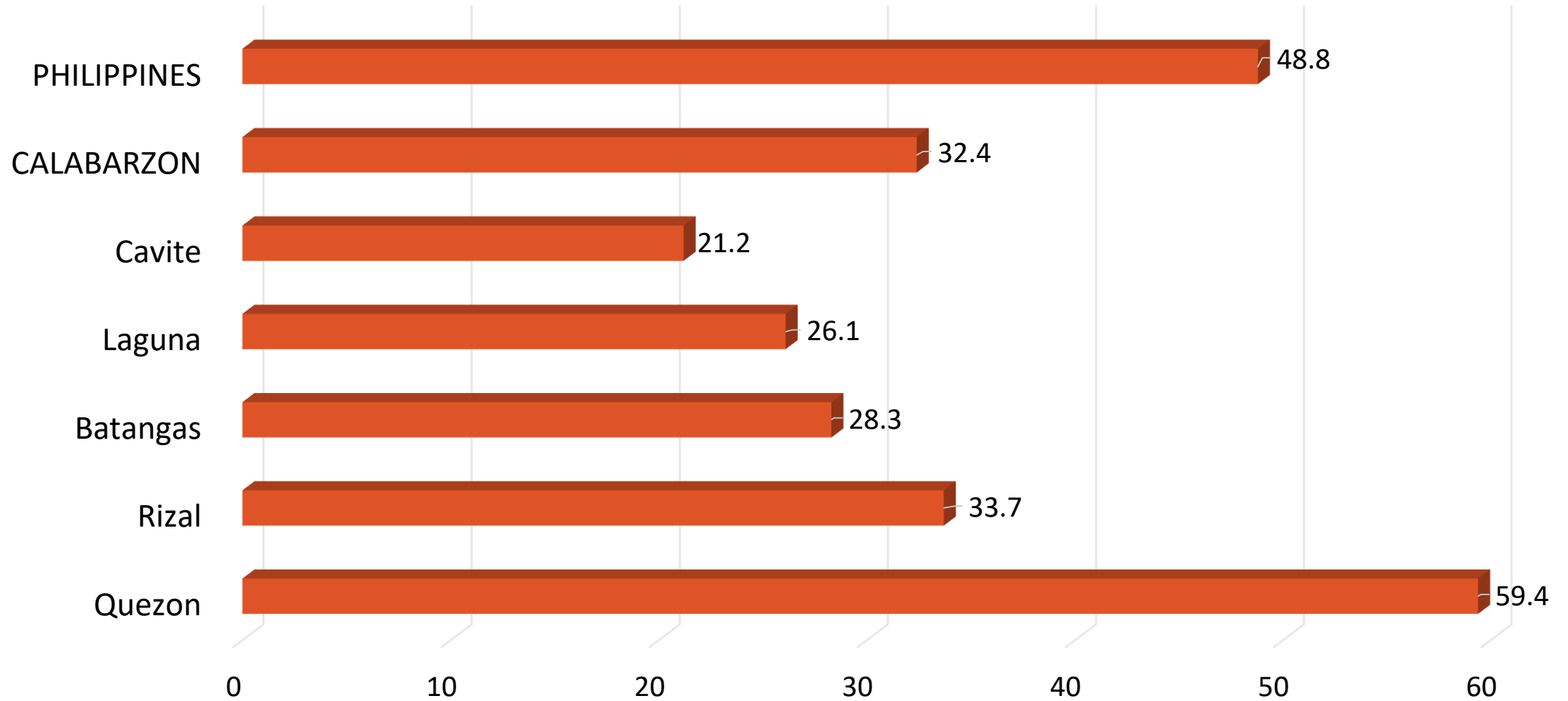
SOURCE: FNRI-DOST NNS, 2015

TRENDS OF **EXCLUSIVELY BREASTFED** CHILDREN 0-5 MONTHS, PHILIPPINES VS CALABARZON



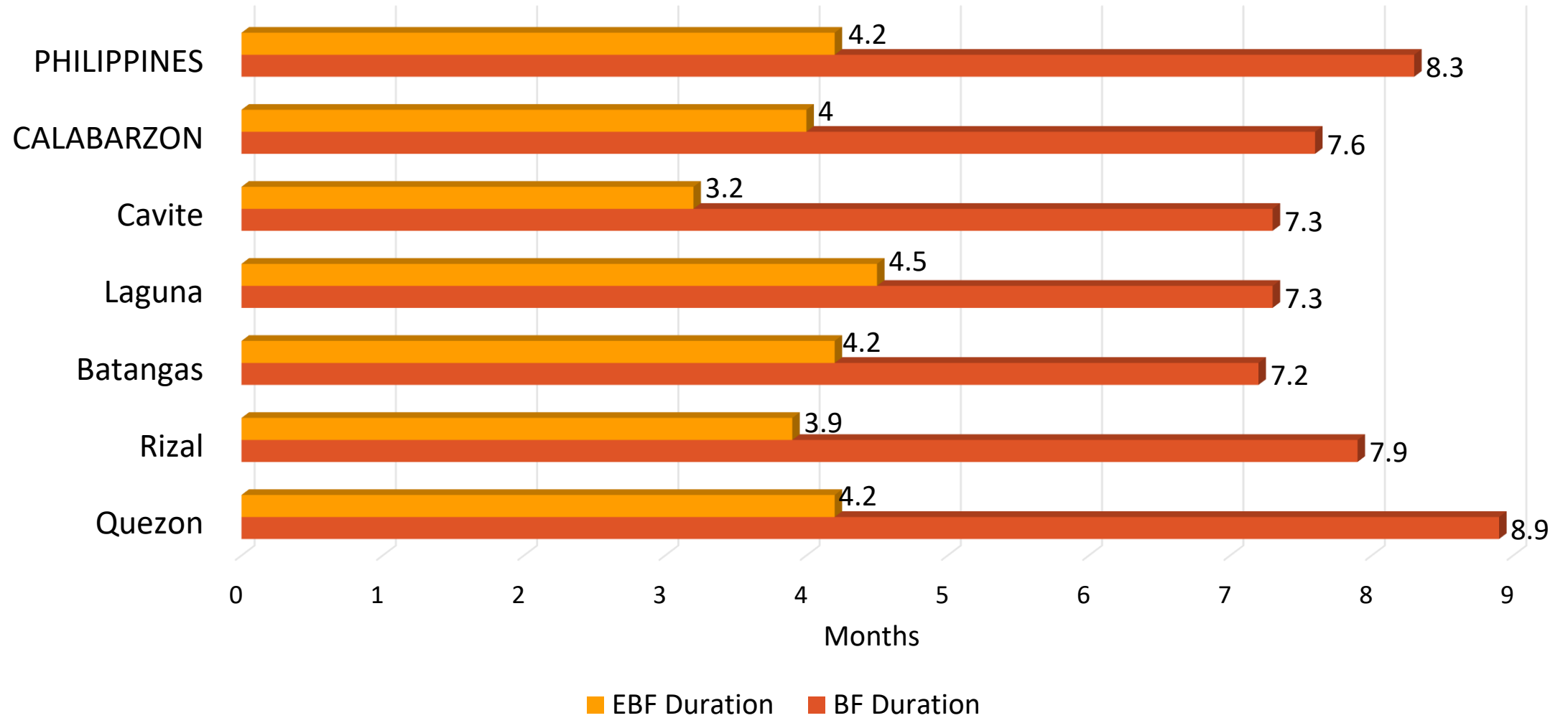
SOURCE: FNRI-DOST NNS, 2015

PREVALENCE OF **EXCLUSIVE BREASTFEEDING** IN CHILDREN 0-5 MONS,
CALABARZON AND PROVINCES



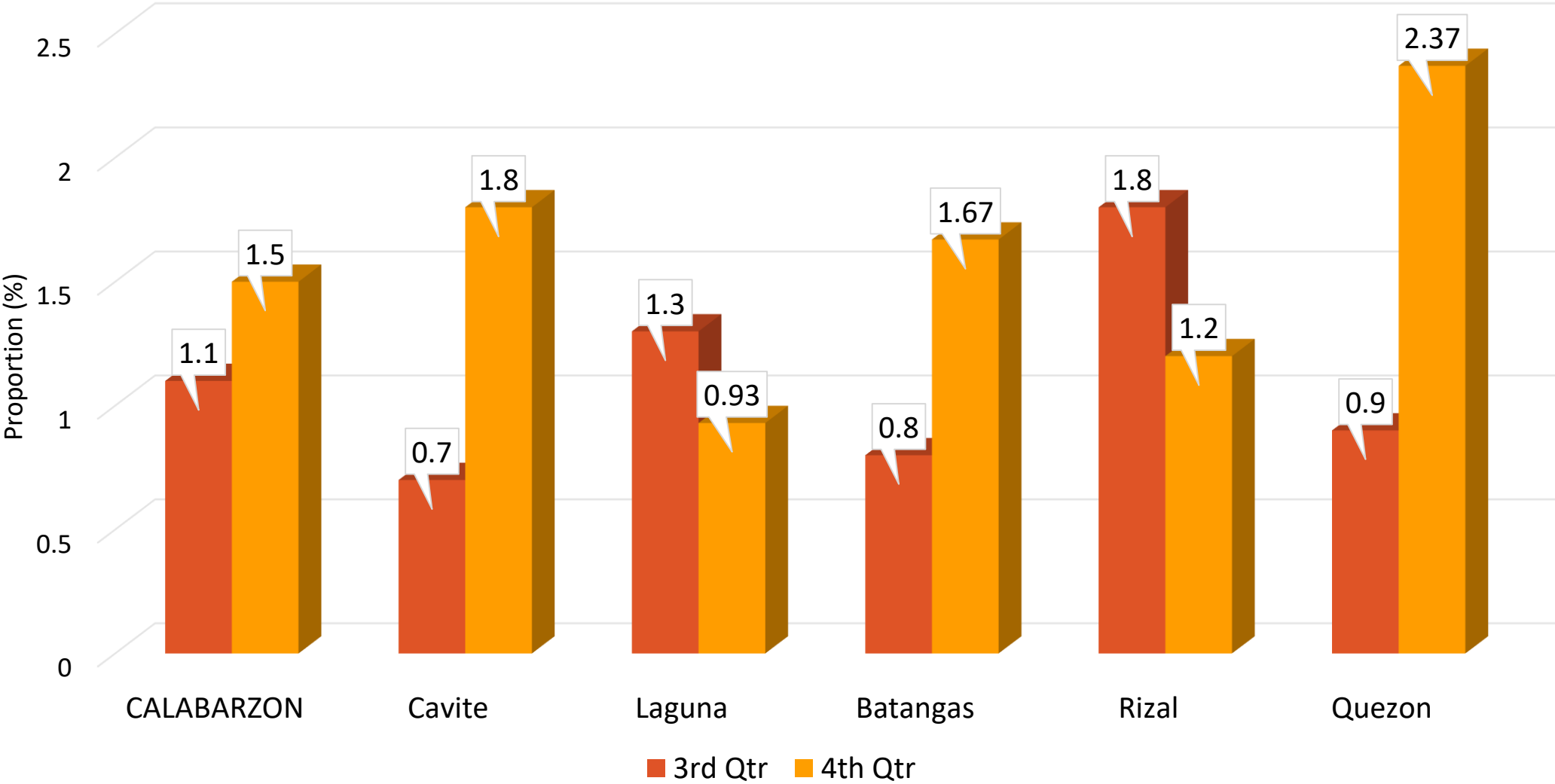
SOURCE: FNRI-DOST NNS, 2015

MEAN DURATION (IN MONTHS) OF BREASTFEEDING,
CALABARZON AND PROVINCES



SOURCE: FNRI-DOST NNS, 2015

AVERAGE **INFLATION RATE** OF CALABARZON AND PROVINCES



SOURCE: PSA via NEDA, 2016

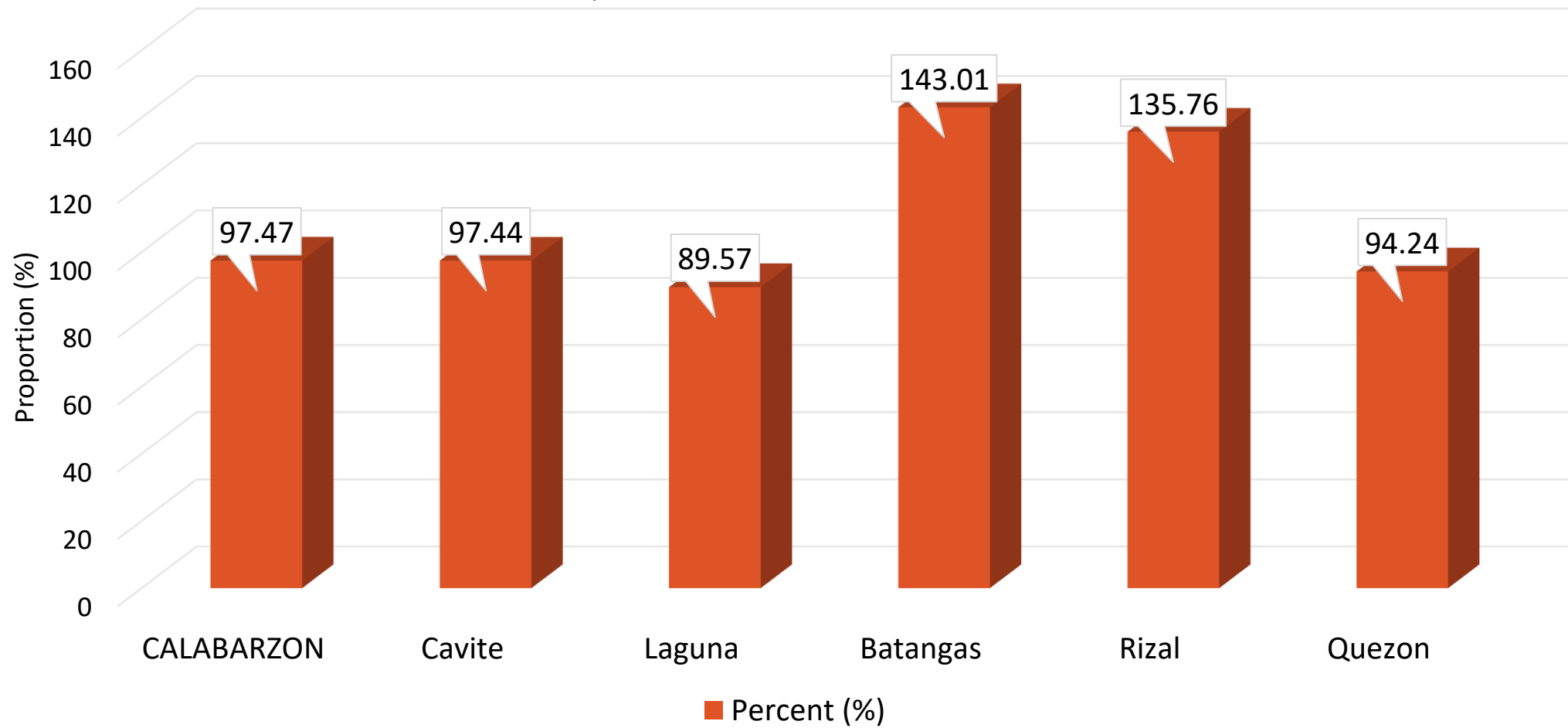


UNDERLYING CAUSES

POOR WATER,
SANITATION AND
FOOD SAFETY

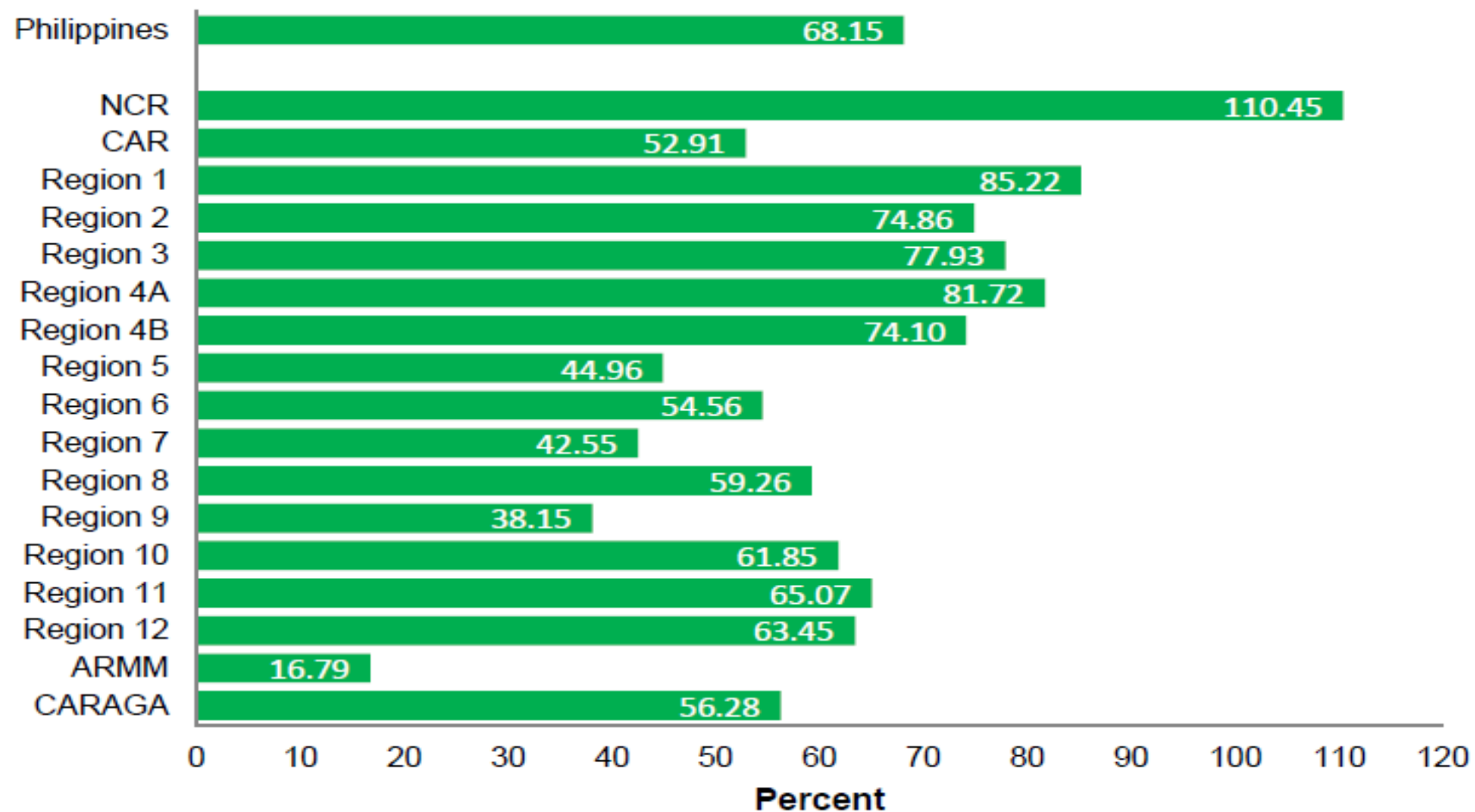
Image from Rappler

PERCENT OF HOUSEHOLDS WITH ACCESS **TO IMPROVED AND SAFE WATER**
SUPPLY, CALABARZON AND PROVINCES



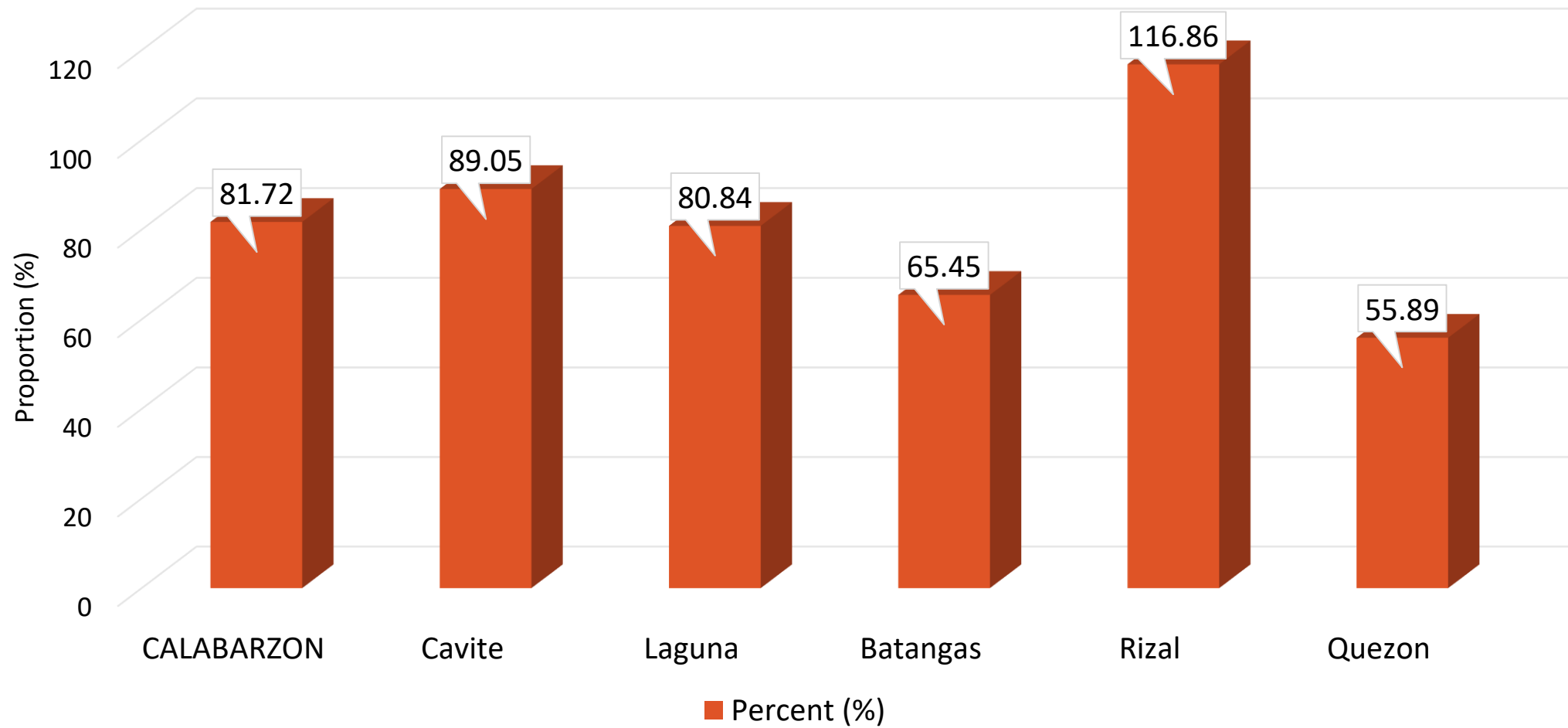
SOURCE: DOH FHSIS, 2015

Households with Complete Basic Sanitation Facilities By Region and Philippines, 2015



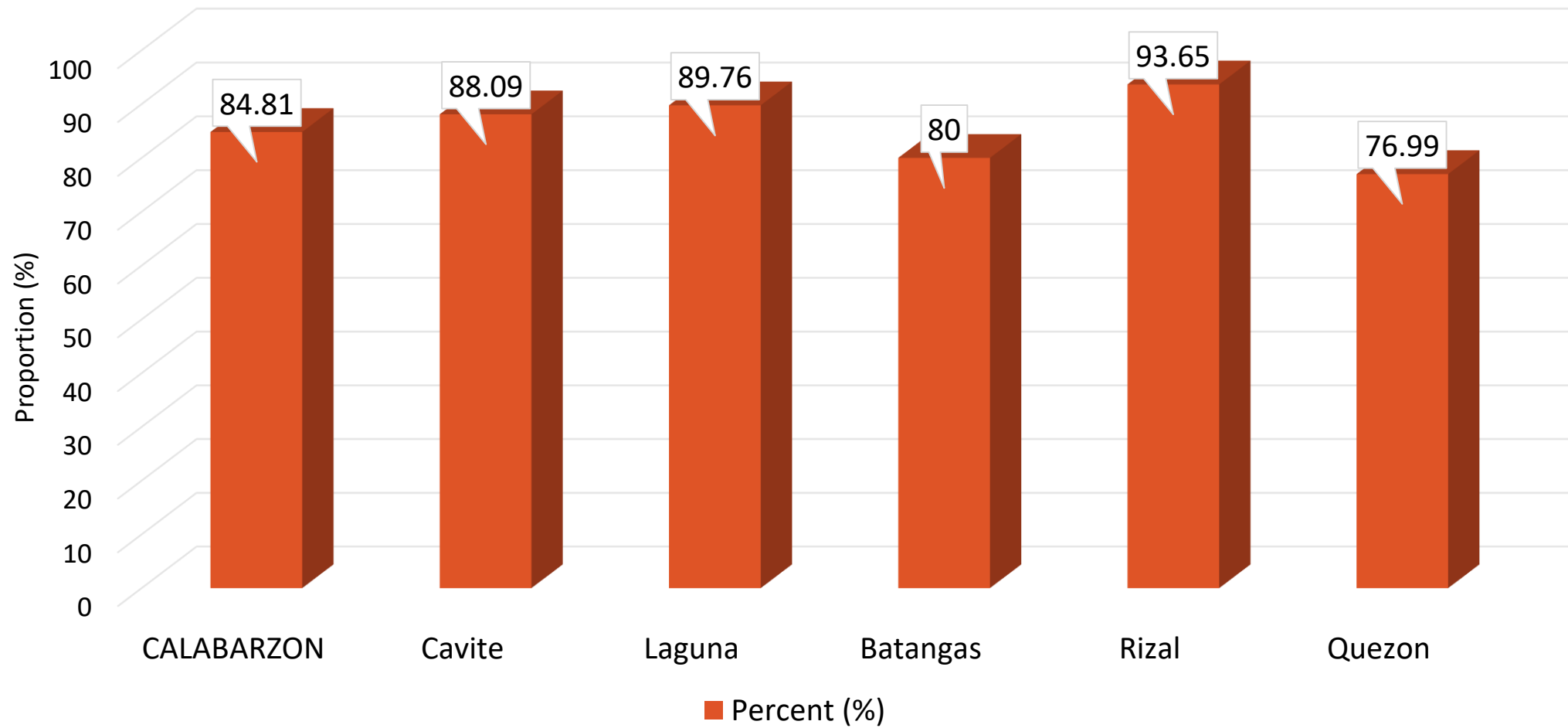
SOURCE: DOH FHSIS, 2015

PERCENT OF HOUSEHOLDS WITH **COMPLETE BASIC SANITATION FACILITIES**,
CALABARZON AND PROVINCES



SOURCE: DOH FHSIS, 2015

PERCENT OF **FOOD ESTABLISHMENTS** WITH SANITARY PERMIT, CALABARZON
AND PROVINCES



SOURCE: DOH FHSIS, 2015

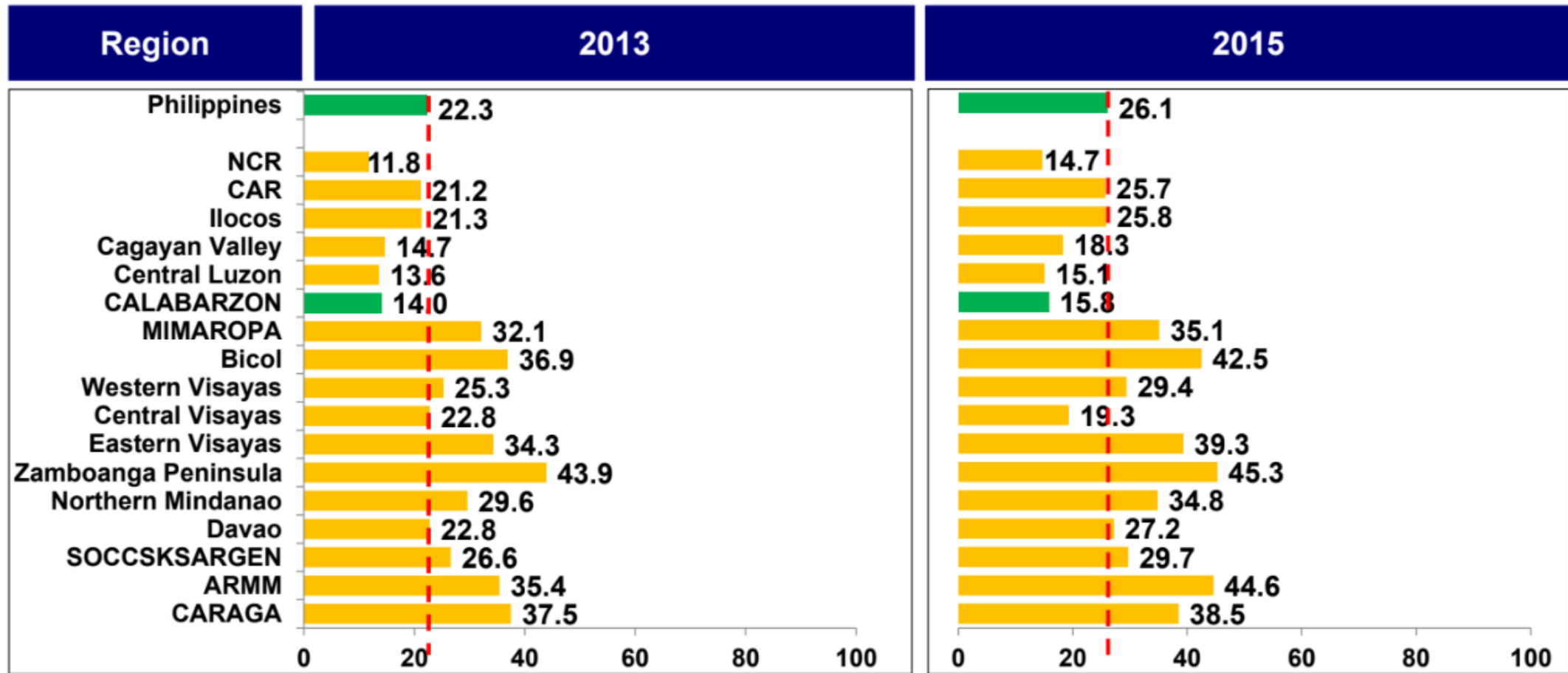


UNDERLYING CAUSES

GOVERNMENT
PROGRAMS








Image from Concept Central

PERCENTAGE OF HOUSEHOLD'S **PARTICIPATION IN PANTAWID FAMILYANG
PILIPINO PROGRAM (4Ps)** BY REGION, PHILIPPINES

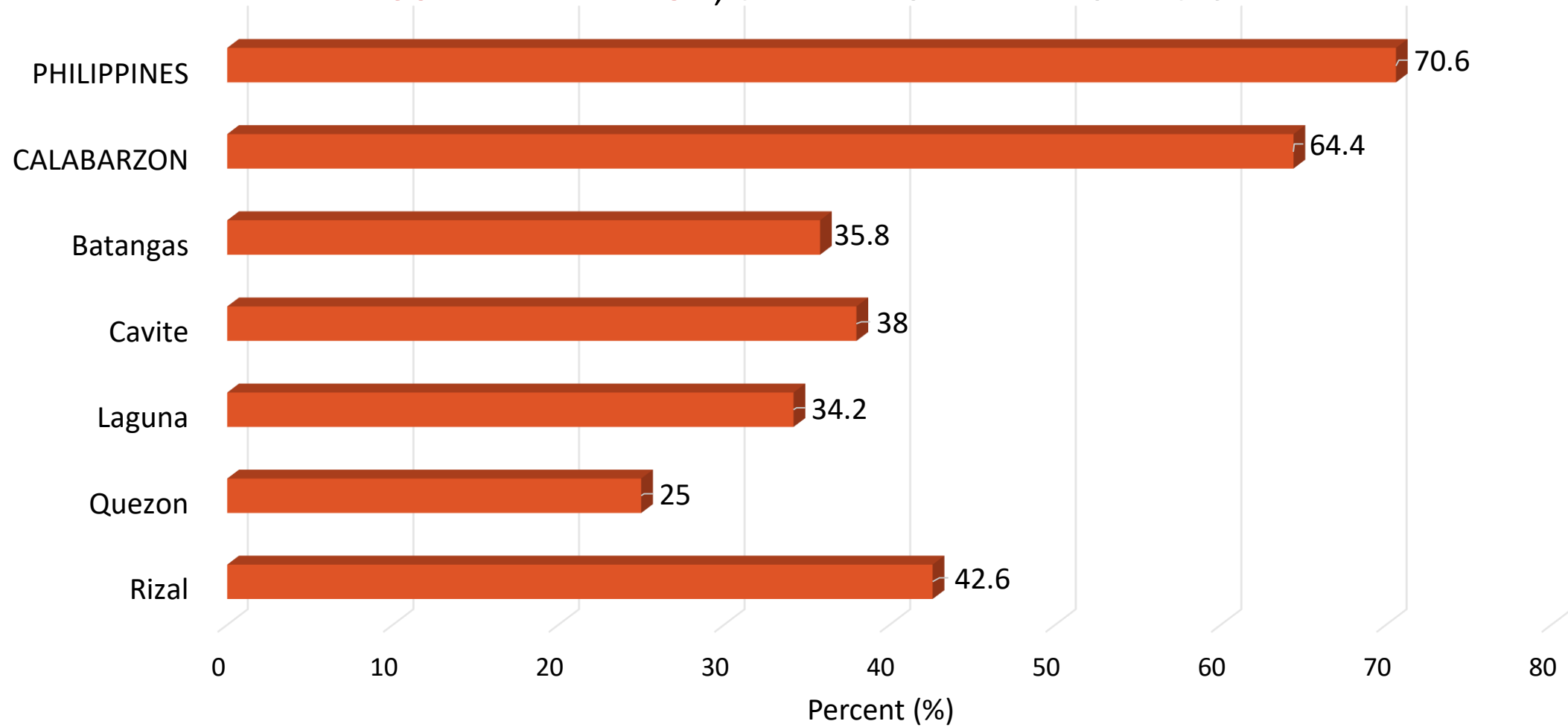


SOURCE: FNRI-DOST NNS, 2015

PERCENTAGE OF HOUSEHOLD'S **PARTICIPATION IN PANTAWID FAMILYANG
PILIPINO PROGRAM (4Ps)** BY PROVINCE, CALABARZON

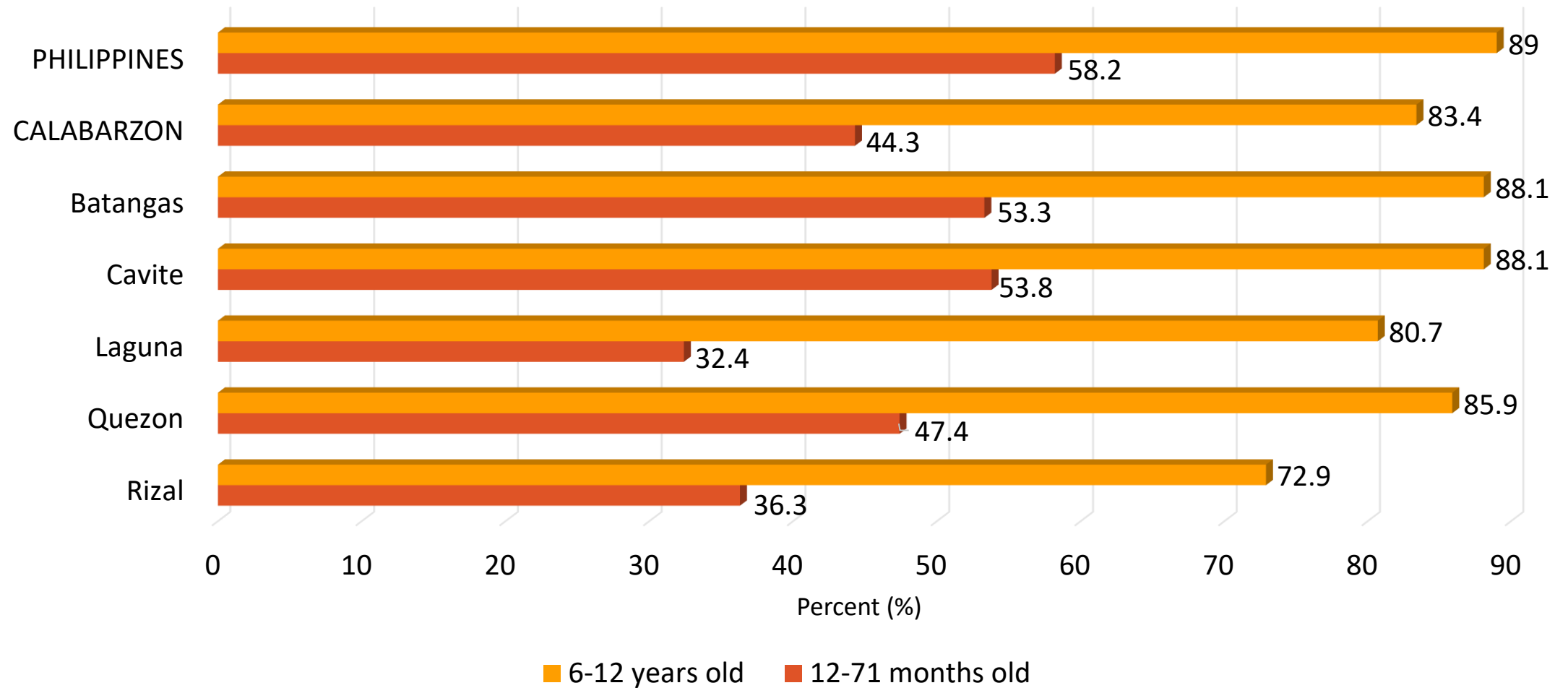
REGION/ PROVINCE	95% Confidence Interval		PERCENT (%)
	LL	UL	
Philippines	24.9	27.4	 26.1
CALABARZON	14.2	17.6	 15.8
Batangas	17.7	25.2	 21.2
Cavite	7.6	18.5	 12.0
Laguna	9.3	14.2	 11.6
Quezon	21.8	29.2	 25.3
Rizal	8.9	17.4	 12.6

PERCENT OF CHILDREN 12-71 MONTHS WHO PARTICIPATED IN **VITAMIN A SUPPLEMENTATION**, CALABARZON AND PROVINCES

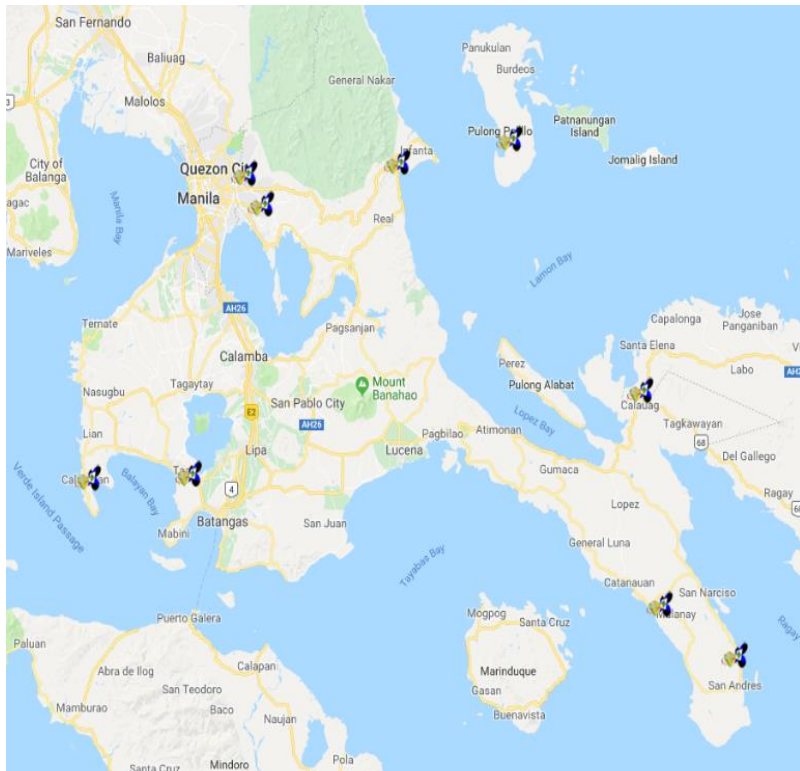


SOURCE: FNRI-DOST NNS, 2015

PERCENT PARTICIPATION OF CHILDREN IN **DEWORMING PROGRAM** OF
CALABARZON AND PROVINCES



DOST-PINOY



Municipality/ City	Status of Training	Status of Advocacy	Status of Monitoring
Polilio, Quezon	✓	✓	To be scheduled
Calauag, Quezon	✓	✓	On-going (4 th cycle)
Malunay, Quezon	✓	✓	On-going (2 nd cycle)
San Andres, Quezon	✓	✓	At endline
Real, Quezon	✓	✓	✓
Antipolo City, Rizal	✓	✓	At endline
Angono, Rizal	✓	X	To be scheduled
San Luis, Batangas	X	✓	X
Clatagan, Batangas	✓	✓	✓

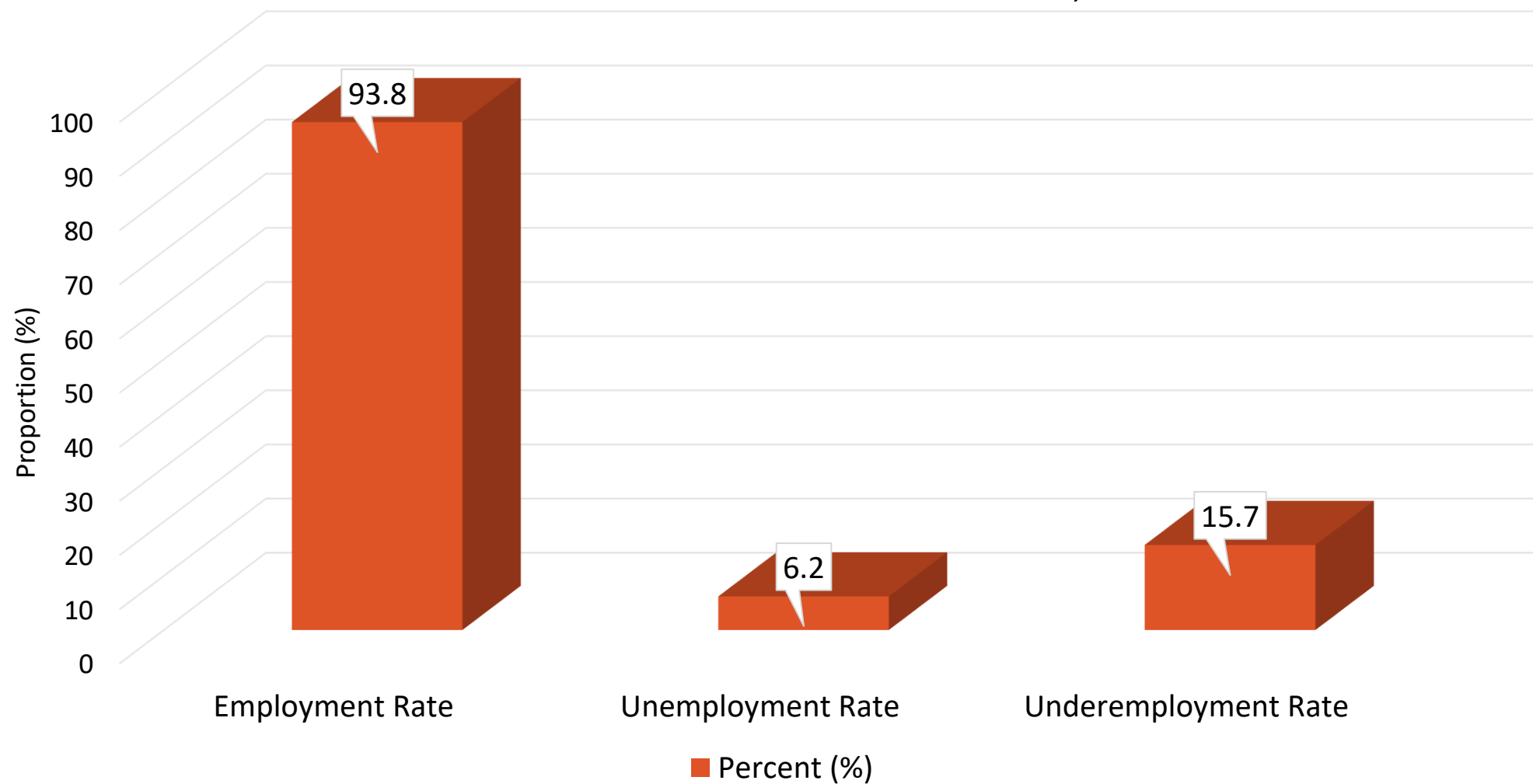


BASIC CAUSES

EMPLOYMENT
AND POVERTY

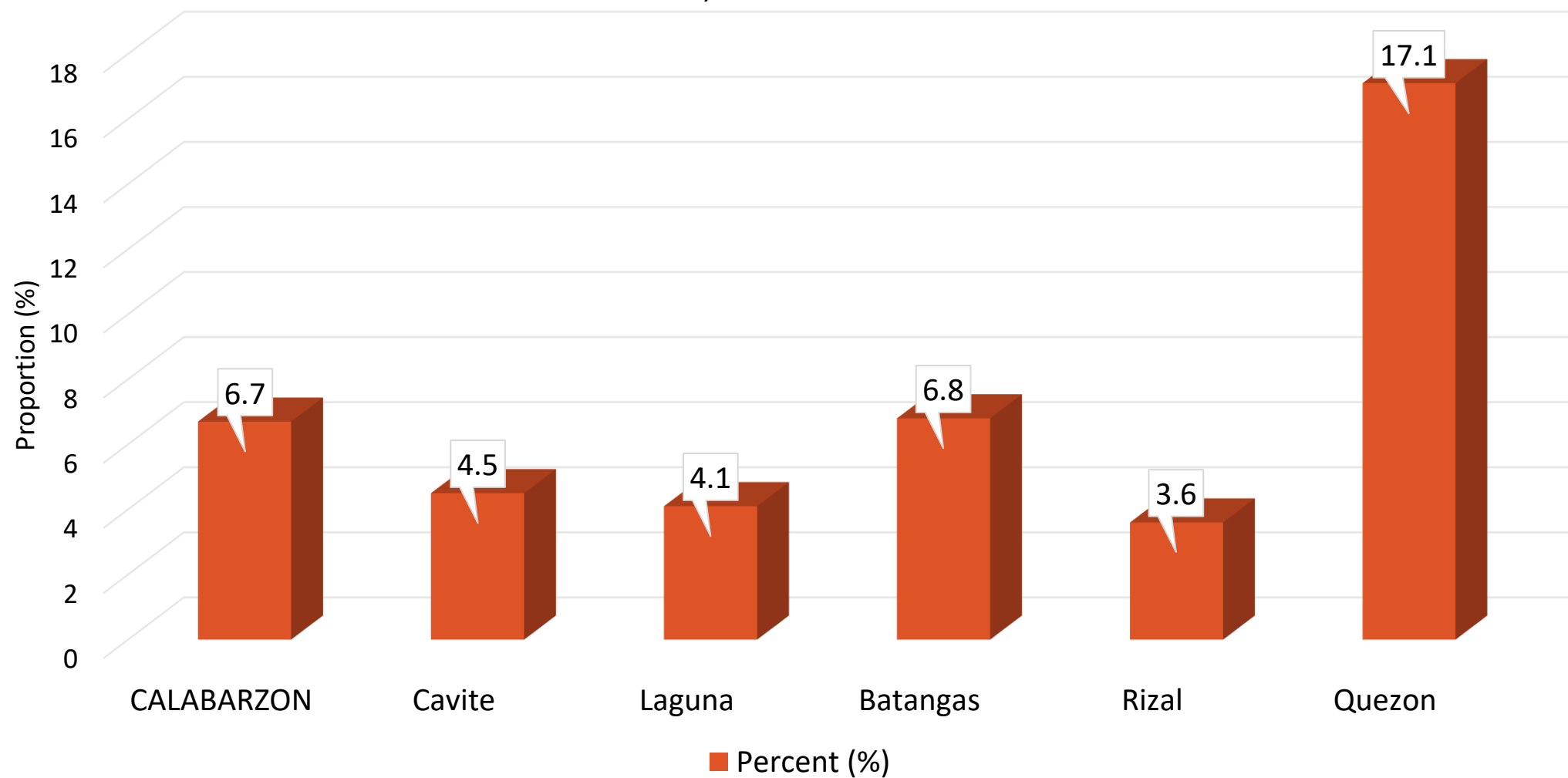
Image from Michelle Patino

LABOR AND EMPLOYMENT AS OF OCT 2016, CALABARZON



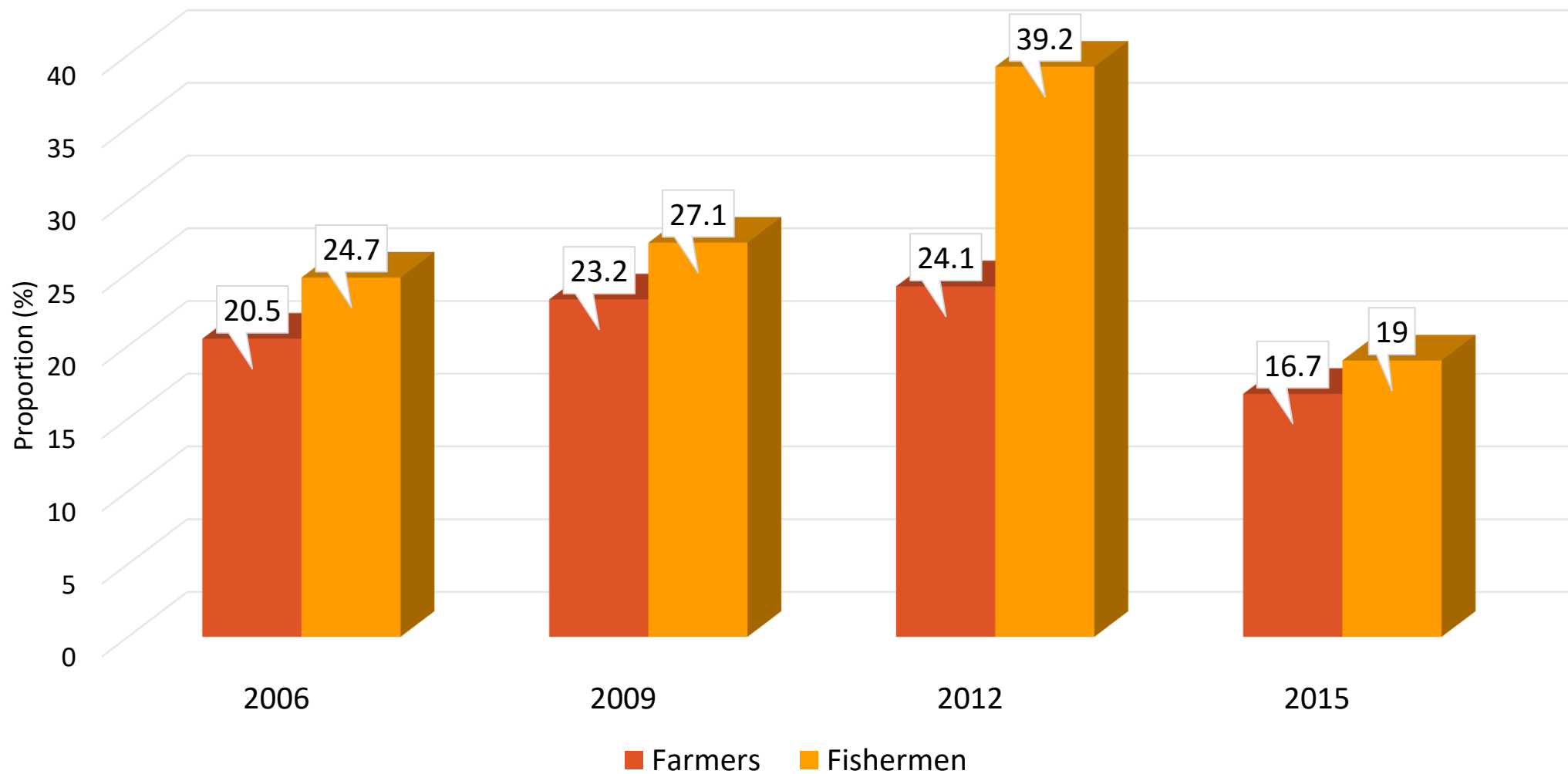
SOURCE: NEDA, 2015

POVERTY INCIDENCE, CALABARZON AND PROVINCES



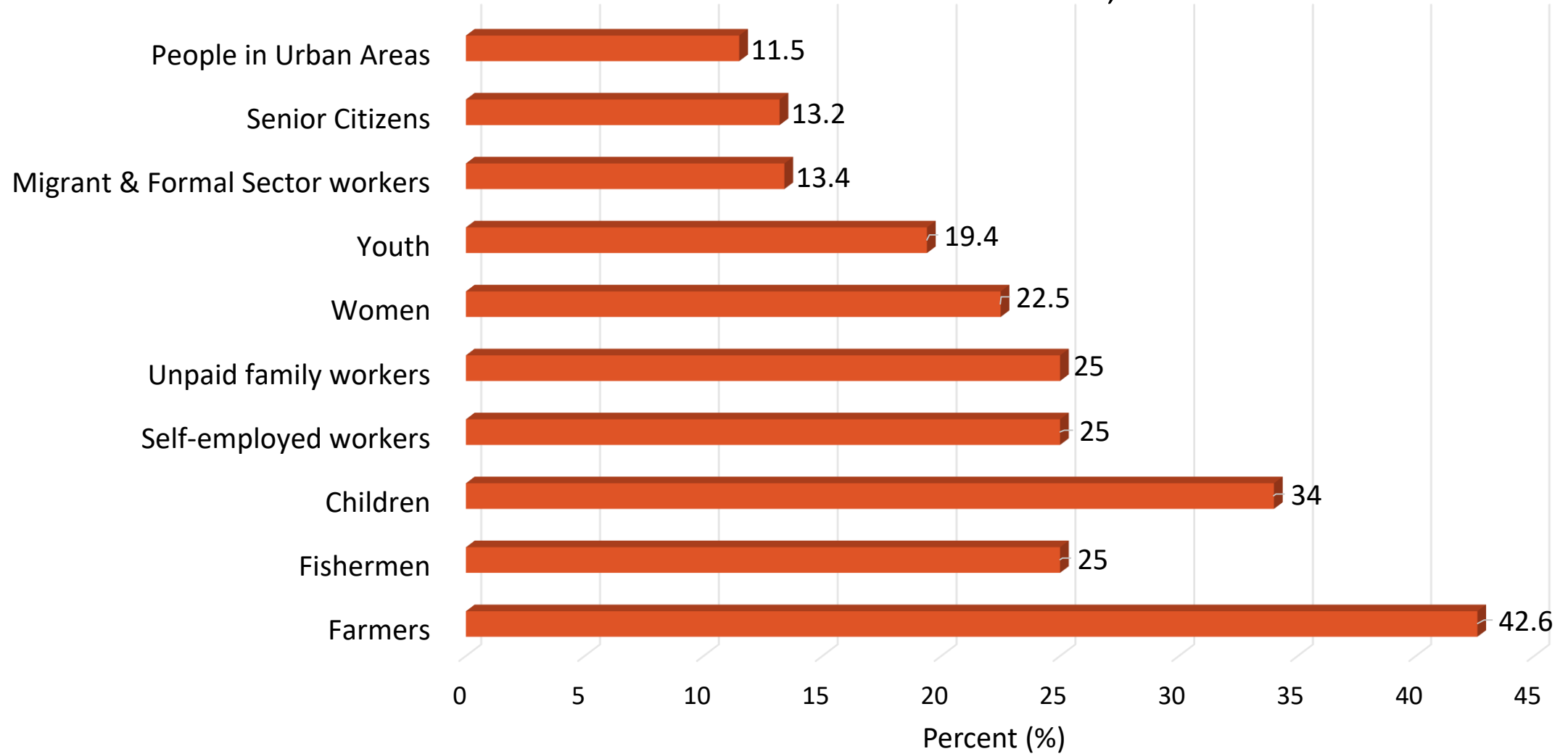
SOURCE: PSA, 2015

TRENDS IN **POVERTY INCIDENCE** OF **FARMERS & FISHERMEN**, CALABARZON



SOURCE: PSA, 2015

PERCENT OF **POOR** AMONG THE **BASIC SECTORS** IN 2015, PHILIPPINES



SOURCE: PSA, 2015

Annual Per Capita Poverty Threshold (Pesos), CALABARZON and provinces

Region and Province	Number
CALABARZON	22 121
Cavite	24 882
Laguna	21 770
Batangas	21 767
Rizal	24 198
Quezon	20 515

STATUS OF CURRENT PROGRAMS

FUNCTIONAL LOCAL NUTRITION COMMITTEES, CALABARZON

LGU	Fully Functional	Substantially Functional	Partially Functional	Non- Functional
Provinces				
1. Cavite	✓			
2. Laguna	✓			
3. Batangas		✓		
4. Rizal				✓
5. Quezon	✓			

LGU	Fully Functional	Substantially Functional	Partially Functional	Non- Functional
Cities				
6. Antipolo City			✓	
7. Bacoor City			✓	
8. Batangas City		✓		
9. Biñan City	✓			
10. Cabuyao City	✓			
11. Calamba City	✓			
12. Cavite City				✓
13. Dasmariñas City		✓		
14. Imus City			✓	
15. Lipa City			✓	
16. Lucena City			✓	
17. San Pablo City			✓	
18. San Pedro City			✓	
19. Sta. Rosa City	✓			
20. Tagaytay City	✓			
21. Tanauan City	✓			
22. Tayabas City	✓			
23. Trece Martires City	✓			

SUMMARY ANALYSIS

CAUSES OF MALNUTRITION IN CALABARZON

- ✓ Physical inactivity
- ✓ Low rates of Exclusive Breastfeeding for infants 0-6 months
- ✓ Low prevalence of initiation of breastfeeding with one hour after delivery (Unang Yakap)
- ✓ Low/Poor participation in Pantawid Pamilyang Pilipino Program (4Ps)
- ✓ Low attainment of Minimum Meal Frequency and Minimum Acceptable Diet
- ✓ Lifestyle Factors and Behaviors
- ✓ Poverty (esp. farmers and fishermen)