PHILIPPINE FACTS AND FIGURES 2003

Part II. Anthropometric Facts and Figures

Anthropometry

How tall or short are the Filipinos? How much do they weigh? Are their weights/heights normal? How many are underweight, obese, stunted, and thin?

Anthropometry is the assessment of the individual's growth and nutritional status based on measures of weight and height. In the Sixth NNS, a calibrated Detecto platform balance weighing scale was used to measure the weight of subjects. The height of subjects who were at least two years of age was measured using the *Microtoise.* For children who were less than two years of age, recumbent length was measured using an infantometer.

The nutritional status of 0–10 year-old children was determined based on the anthropometric indices shown in Table 19 and the NCHS/WHO International Reference Standard and cut-off points (1995). The nutritional status of adolescents, adults and lactating mothers was based on Body Mass Index (BMI), which is measured as weight (kg)/[height (m)]^2, also using International Reference Standards and cut-off points (Tables 20 and 21). The nutritional status of pregnant women was based on the table on weight-for-height by month of pregnancy that was developed by FNRI (Magbitang et al., 1988) and the cut-off points shown in Table 22.

Table 19. Cut-off points used in classifying the children based on NCHS/WHO Reference Standards for Growth

Index/Classification	Cut-off Points
Weight-for-Age	
Underweight	<-2SD
Normal	-2SD to +2SD
Overweight	> +2SD
Height-for-Age	
Underheight or short	<-2SD
Normal	-2SD to +2SD
Above Average/Tall	> +2SD
Weight-for-Height	
Thin	<-2SD
Normal	-2SD to +2SD
Overweight	> +2SD
NEC*	

*Not Elsewhere Classified - those whose heights are not in the weight-for-height tables

Table 20. Cut-off points used in classifying adolescents' nutritional status of subjects 11-19 years based on BMI-for-age (Must, 1991)

Classification	Cut-off Points
Underweight	<P5
Mild	P5 to < P15
Normal	P15 to < P85
Overweight	≥P85

Table 21. Cut-off points used in classifying nutritional status of subjects 20 years and over based on BMI (NCHS/WHO, 1978)

Classification	Cut-off Points
Chronic Energy Deficiency (CED)	<18.5
Normal	18.5 to <25.0
Overweight	25.0 to <30.0
Obese	≥30.0

Table 22. Cut-off points used in classifying nutritional status of pregnant women based on weight-for-height (Magbitang, 1988)

Classification	Cut-off Points
Nutritionally at-risk	<P95
Not Nutritionally at-risk	≥P95

Table 23. Cut-off points used in classifying lactating mothers based on BMI for adults (NCHS/WHO, 1978) and BMI-for-age for adolescents (Must, 1991)

Classification	Lactating	
	Adolescent	Adults
Underweight	<P5	< P18.5
Mild	P5 to < P15	
Normal	P15 to P85	18.5 to < 25.0
Overweight	>P85	25.0 to < 30.0
Obese		≥ 30.0

1. At the National Level

1.1 Preschool-age children, 0 – 5 years old

- 72 in every 100 preschool children have normal weight-for-age, 27 in every 100 are underweight and one in every 100 is overweight.
- 70 in every 100 children have normal height-for-age, 30 in every 100 are short or underheight, and six in every 1,000 are tall for their age.
- 92 in every 100 children have normal weight-for-height, five in every 100 are thin, and two in every 100 are overweight for their height.

Table 24. Percentage distribution of 0–5 year-old children by nutritional status: Philippines, 2003

Index/Classification	Percent Distribution (n=4111)
Weight-for-Age	
Underweight	26.9
Normal	71.7
Overweight	1.4
Height-for-Age	
Underheight	29.9
Normal	69.5
Above Average/Tall	0.6
Weight-for-Height	
Thin	5.3
Normal	92.4
Overweight	2.1
NEC*	0.3

*Not Elsewhere Classified - those whose heights are not in the weight-for-height tables

Based on the NSO 2003 population projections, an estimated 3.2 million 0-5 year-old children are underweight, 3.4 million are underheight and 630,000 are thin.

- 12 in every 100 children less than one year of age are underweight, 87 have normal weight-for-age, one out of 100 is overweight
- 30–32 in every 100 are underweight among the one, two, and three year-olds; 67–69 have normal weight-for-age, and between one and two out of 100 are overweight
- 27–29 in every 100 children among the four and five year-olds are underweight; 69–71 have normal weight-for-age, two out of 100 are overweight

- The proportion of underheight children also increases from eight in every 100 among the children less than one year of age, to 25 in every 100 among one year-old children.

- The proportion of underheight further increases to 32 in every 100 among the two year-olds and 36 to 38 in every 100 among the three, four and five year-olds.

Table 25. Percentage distribution of 0–5 year-old children, by single age group and by nutritional status based on weight-for-age and height-for-age: Philippines, 2003

Age (years)	Sample Size	Percent Distribution by Weight-for-Age		
		Underweight	Normal	Overweight
0	667	11.7*	87.0	1.3
1	664	31.2*	68.0	0.8
2	658	31.7*	67.4	0.9
3	741	29.6*	68.6	1.8
4	683	29.2*	69.2	1.7
5	698	27.3*	70.9	1.9
		Percent Distribution by Height-for-Age		
		Underheight	Normal	Tall
0	667	8.2**	90.6	1.2
1	664	25.4*	74.2	0.4
2	658	31.8*	67.3	0.9
3	741	37.9*	61.8	0.3
4	683	36.4*	63.1	0.5
5	698	38.2*	61.2	0.6

* CVs < 10
** CVs > 10 but < 16

1.2 School-age children, 6 – 10 years old

- 73 in every one hundred 6–10 year-old children have normal weight-for-age, 26 in every 100 are underweight and one in every 100 is overweight.

- 64 in every one hundred 6–10 year-old children have normal height-for-age, 36 in every 100 are underheight and four in every 1,000 are tall for their age.

- 94 in every one hundred 6-8 year-old children have normal weight-for-height, four are thin, and three in every 1,000 are overweight.

Table 26. Percentage distribution of 6–10 year-old children by nutritional status: Philippines, 2003

Index/Classification	Percent Distribution (n= 3,436)
Weight-for-Age	
Underweight	25.6
Normal	73.1
Overweight	1.3
Height-for-Age	
Underheight	35.8
Normal	63.7
Above Average/Tall	0.4
Weight-for-Height*	
Wasted	3.5
Normal	93.9
Overweight	2.4
NEC	0.3

* 6–8 year-old children, n=2,032
** Not elsewhere classified - those whose height are beyond the limits of the weight-for-height tables

Based on the 2003 population projection from NSO, an estimated 2.4 million 6-10 year-old children are underweight and 3.3 million are underheight or short; 19,854 6–8 year-old children are thin.

- 26–27 in every 100 are underweight among the six, seven and eight year-olds, 71 to 73 in every 100 have normal weight-for-age, one to two out of 100 are overweight
- 24–25 in every 100 are underweight among the nine and 10 year-olds, 75 in 100 have normal weight-for-age, one to two out of 100 are overweight
- 34-35 in every 100 among the six, seven and nine year-olds, and 38 in every 100 among the eight and ten year-olds are underheight.

Table 27. Percentage distribution of 6–10 year-old children by single age group and by nutritional status based on weight-for-age and height-for age: Philippines, 2003

Age	Sample Size	Percent Distribution by Weight-for-Age		
		Underweight	Normal	Overweight
6	662	26.9*	71.8	1.4
7	698	26.8*	71.4	1.9
8	672	25.9*	72.9	1.2
9	696	24.8*	74.6	0.7
10	708	23.7*	74.8	1.5
		Percent Distribution by Height-for-Age		
		Underheight	Normal	Tall
6	662	34.8*	64.5	0.7
7	698	34.2*	65.3	0.5
8	672	37.8*	61.8	0.4
9	696	34.6*	65.4	0.0
10	708	37.9*	61.5	0.6

*CVs $\leq$ 10
** CVs > 10 but < 16

1.3 Trends in the nutritional status of children 0-10 years

Children 0-5 years old

- The proportion of underweight 0-5 year-old children declined by 7.6 percentage-points between 1990 and 2003, from 34.5 % to 26.9 %, showing a reduction rate of 0.58 percentage-points a year during the period.

- The proportion of underheight among these children declined by 10 percentage-points between 1990 and 2003, from 39.9 % to 29.9 %, showing a reduction rate of 0.77 percentage-points a year during the period.

- The proportion of thin in this group fluctuated between 5 to 5.3 % in 1990, 1996 and 2003, 6.6 % and 6.7 % in 1992 and 1993, and 6.0 % and 6.3 % in 1998 and 2001.

- The proportion of overweight-for-age of these children doubled between 1990 and 2003, from 0.6 % to 1.4 %.

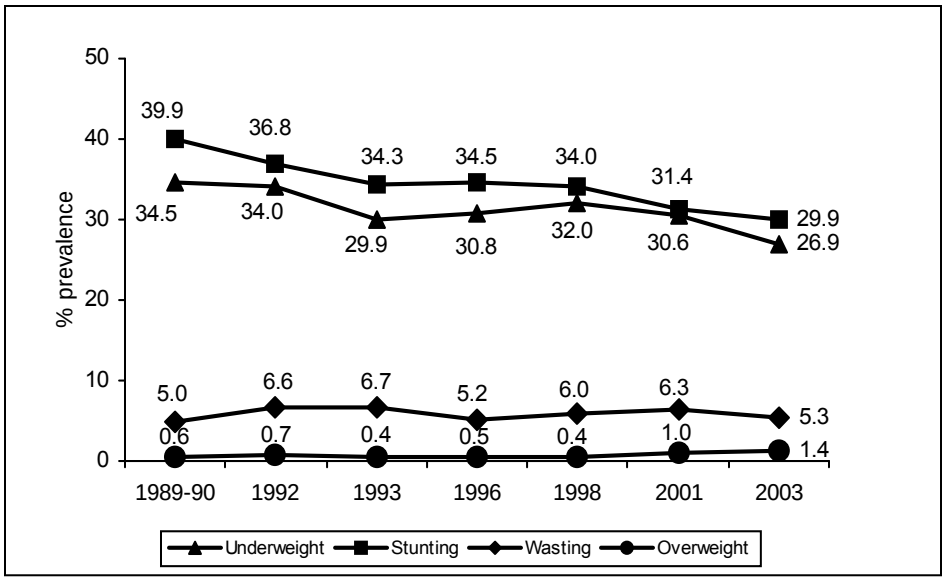

Figure 9. Trends in the prevalence of malnutrition among 0–5 year-old children: Philippines, 1989/90 – 2003

There is a more rapid change in the nutritional status of 0-5 year-old children from 1998 to 2003, than from 1990 to 1998.

- The proportion of underweight of these children declined by 5.1 percentage-points in five years, from 32.0 % in 1998 to 26.9 % in 2003; presenting a reduction rate of 1.02 percentage-points a year during the period.

- The proportion of underheight of these children declined by 4.1 percentage-points, from 34.0 % in 1998 to 29.9 % in 2003; presenting a reduction rate of 0.82 percentage-points a year.

- The proportion of thin 0–5 year-old children has declined from 6.0 % in 1998 to 5.3 % in 2003.

- The proportion of overweight-for-age among them more than tripled from 0.4 % to 1.4 %; the proportion of overweight-for-height in these children also more than doubled from 0.9 % to 2.1 %.

Table 28. Trends in the nutritional status of 0–5 year-old children: Philippines, 1998, 2001 and 2003

Classification / Nutritional Status	1998	2001	2003
Weight-for-Age			
Underweight	32.0	30.6	26.9
Normal	67.6	68.4	71.7
Overweight	0.4	1.0	1.4
Height-for-Age			
Underheight	34.0	31.4	29.9
Normal	65.7	68.0	69.5
Tall	0.4	0.5	0.6
Weight-for-Height			
Thin	6.0	6.3	5.3
Normal	93.0	92.1	92.4
Overweight for Height	0.9	1.4	2.1
NEC	0.1	0.1	0.3

* Not elsewhere classified - those whose height are beyond the limits of the weight-for-height tables

- A reduction rate of no less than 0.87 percentage-points a year after 2003 is necessary to achieve the Millennium Development Goal (MDG) target of 17.4 % in 2015.

Children 6-10 years old

- The prevalence of overweight for age among 6-10 year old children increased from a zero rate in 1998 to a 1.3 prevalence rate in 2003.

- The prevalence of underweight among them decreased by 4.6 percentage points from 1998 to 2003 indicating a reduction rate of 0.92 percentage-points a year.

- The prevalence of underheight in these children decreased by five percentage-points from 1998 to 2003 indicating a reduction rate of one percentage-point a year.

Table 29. Comparison in the prevalence of underweight and underheight among 6–10 year-old children: Philippines, 1998, 2001 and 2003

Classification / Nutritional Status	1998	2001	2003
Weight-for-Age			
Underweight	30.2	32.9	25.6
Normal	69.8	66.2	73.1
Overweight	n	0.8	1.3
Height-for-Age			
Underheight	40.8	41.1	35.8
Normal	59.2	58.7	63.7
Tall	n	0.2	0.4

n - negligible

- The prevalence of underweight among 6–10 year-old children decreased by 8.6 percentage-points from 1989/90 to 2003 which means a reduction rate of 0.66 percentage-points a year.

- The prevalence of underheight among them decreased by nine percentage-points from 1989/90 to 2003 which is a reduction rate of 0.69 percentage-points a year.

- The prevalence of overweight for age increased by 1.2 percentage points from 1989/90 to 2003.

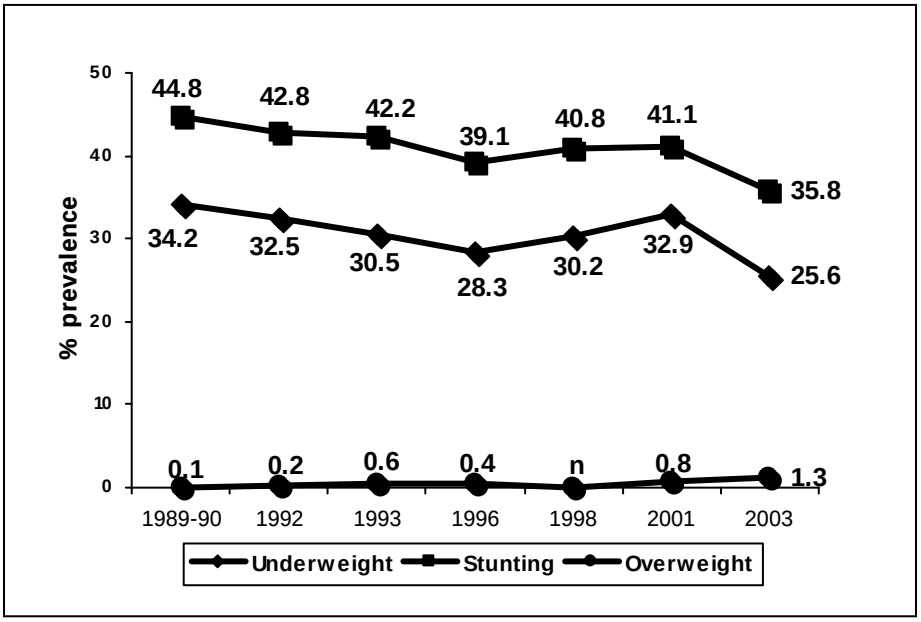

Figure 10. Trends in the prevalence of malnutrition among 6–10 year-old children: Philippines, 1989/90 – 2003

1.4 Adolescents, 11–19 years old

- The mean height of pre-adolescents, 11–12 years old, is 139.6 centimeters among females, and 136.4 among males; the mean weight of the same group is 32.6 kilograms among females and 30.4 among males.

- The mean height of adolescents 13–19 years old is 150.4 centimeters among females, and 157.2 among males; the mean weight of the same group is 44.6 kilograms among females, and 47.0 among males.

Table 30. Mean weight and height of adolescents, 11–19 years old, by age group and by gender: Philippines, 2003

Age Group (years)	Male		Female		Both Gender	
	Mean Weight (kg)	Mean Height (cm)	Mean Weight (kg)	Mean Height (cm)	Mean Weight (kg)	Mean Height (cm)
11-12	30.40	136.40	32.60	139.61	31.47	137.96
13-19	47.03	157.21	44.36	150.36	45.75	153.94
All	**42.88**	**152.01**	**41.36**	**147.62**	**42.15**	**149.91**

- 49 in every 100 adolescents 11–12 years old, and 68 in 100 among the 13–19 year-old adolescents, have normal BMI.
- Among the 11–12 year-old adolescents, 26 in every 100 are underweight while four in 100 are overweight. There are more males (31 in 100) than females (21 in 100) among 11–12 year-old adolescents who are underweight, and also slightly more males (five in 100) than females (three in 100) who are overweight.
- Among the 13–19 year-old adolescents, 12 in every 100 are underweight while three in 100 are overweight. There are less underweight among females (six in 100) than males (17 in 100).
- Among male adolescents, underweight as well as overweight decreases with age; among female adolescents, underweight decreases while overweight increases with age.

Table 31. Percentage distribution of adolescents by gender, age and nutritional status using BMI classification: Philippines, 2003

Age Group & Gender	Sample size	Underweight < P5th	Mild P5th to < P15th	Normal P15th to < P85th	Overweight ≥ P85th
Male					
11-12	683	31.0*	21.5	42.6	4.9
13-19	1831	17.0*	21.5	58.5	2.9
All	**2514**	**20.5***	**21.5**	**54.6**	**3.4**
Female					
11-12	660	20.6*	19.3	56.7	3.4
13-19	1682	6.4*	11.5	78.2	3.9
All	**2342**	**10.1***	**13.5**	**72.7**	**3.8**
Both					
11-12	1343	25.9*`	20.4	49.4	4.2
13-19	3513	12.0*	16.7	67.9	3.4
All	**4856**	**15.5***	**17.7**	**63.2**	**3.6**

* CVs ≤ 10

1.5 Trends in the nutritional status of adolescents

- The prevalence of underweight decreased from 34.0 % in 1993 to 25.9 % in 2003 among the 11–12 year-old adolescents, with 4.1 percentage-points over 10 years. (There is a decrease from 28.7% to 12.0 %, or 16.7 percentage-points during the same period, among 13–19 year-old adolescents)

- The reduction in underweight prevalence was 20.6 percentage-points in 10 years among female adolescents, and 9.3 percentage-points among the male adolescents in the same period.

- The prevalence of overweight increased from 2.2 % in 1993 to 4.2 % in 2003 among the 11–12 year-old adolescents, or 2 percentage-points over 10 years. Among the 13–19 year-old adolescents, overweight increased from 2.4 % in 1993 to 3.6 % in 2003, which means 0.9 percentage-points in 10 years.

- The increase in overweight prevalence was 1.6 percentage-points in 10 years among female adolescents, and 0.8 percentage-point among the male adolescents in the same period.

Table 32. Trends in the prevalence of underweight and overweight among adolescents: Philippines, 1993 – 2003

Gender/ Age	Underweight			Overweight		
	1993	1998	2003	1993	1998	2003
	% Prevalence					
Male						
11 – 12	27.1	34.0	31.0	2.6	1.8	4.9
13 – 19	19.1	19.3	17.0	2.5	1.0	2.9
All	**21.6**	**23.0**	**20.5**	**2.6**	**1.2**	**3.4**
Female						
11 – 12	19.2	27.2	20.6	1.5	3.2	3.4
13 – 19	5.9	12.9	6.4	2.5	5.2	3.9
All	**9.5**	**16.4**	**10.1**	**2.2**	**4.7**	**3.8**
Both						
11 – 12	23.5	30.6	25.9	2.2	2.5	4.2
13 – 19	12.6	16.2	12.0	2.5	3.1	3.4
All	**15.8**	**19.8**	**15.5**	**2.4**	**2.9**	**3.6**

1.6 *Adults, 20 years old and over*

- The mean weight of male adults, 20–39 and 40–59 years old is 60.1 and 60.5 kilograms, respectively; their mean height is 163.5 and 162.6 centimeters, respectively.

- The mean weight of female adults of the same age is 51.7 and 54.2 kilograms, respectively; their mean height is 151.8 and 151.1 centimeters, respectively.

- The mean weight and mean height of adults 60 years of age and over, for both males and females are generally lower than the younger and middle-aged adults. The mean weight and mean height of elderly females with 48.3 kilograms and 148.0 centimeters, respectively; the mean weight and mean height of elderly males are 53.7 kilograms and 160.0 centimeters, respectively.

Table 33. Mean weight and height of adults, 20 years old and over, by age group and by gender: Philippines, 2003

Age Group (years)	Male		Female		Both Gender	
	Mean Weight (kg)	Mean Height (cm)	Mean Weight (kg)	Mean Height (cm)	Mean Weight (kg)	Mean Height (cm)
20-39	60.09	163.49	51.68	151.76	56.44	158.41
40-59	60.52	162.61	54.21	151.11	57.28	156.70
60 and over	53.73	159.67	48.30	147.96	50.6	152.97

- 69 in every 100 adults, 20–39 years old, have normal BMI; the proportion with normal BMI is lower among the middle-aged (40–59 years old) and older (60 years old and over) adults: 59 and 58 in 100, respectively.

- 12 in 100 adults, 20 years of age and over, manifest Chronic Energy Deficiency (CED). Twenty in every 100 adults, 20 years of age and over, are overweight to obese.

- CED affects 11 in every one hundred adults 20–39 year-old adults, and 10 in one hundred adults 40–59 years old. Among the older adults, 23 in 100 manifest CED.

- Overweight or obesity affects 21 in one hundred 20–39 year-old adults, 31 in 100 middle-aged adults, and 19 in 100 older adults.

- Between male and female adults, there are more underweight as well as more overweight-obese among the latter. Fourteen in 100 female adults manifest CED while 27 in 100 are overweight-obese (vis-à-vis 10 and 20 in 100, respectively, among males).

Table 34. Percentage distribution of adults, 20 years old and over, by BMI, by age and by gender: Philippines, 2003

Age Group (Years)	CED (<18.5)	Normal (18.5 to < 25.0)	Overweight (25.0 to <30.0)	Obese (≥ 30.0)
Male	**10.6***	**68.5**	**17.9**	**3.0**
Female	**14.2***	**58.5**	**21.6**	**5.7**
Both Gender				
20-39	10.6*	68.7	17.1	3.6
40-59	10.4*	58.7	25.1	5.7
60 and over	23.4*	57.5	15.8	3.3
All	**12.3***	**63.7**	**19.7**	**4.3**

* CVs ≤ 10

- Using the suggested cut-off points for determining risk to diabetes, hypertension, and other co-morbidities related to coronary heart disease among Asian population (WHO Expert consultation, 2004), less than one-half (47.3 %) of the Filipino adult population are low-risk, 29.6 % are moderate risk and 10.7 % are high-risk to develop metabolic diseases.

- More females have moderate to high risk to the same disorders than males.

Table 35. Percentage distribution of adults by age group and by nutritional status based on BMI for Asian population: Philippines, 2003

Age Group (Years)	CED (<18.5)	Low Risk (18.5 to <23.0)	Moderate Risk (23.0 to 27.4)	High Risk (≥27.5)
20-39	10.6	53.0	27.4	9.1
40-59	10.4	40.6	34.9	14.1
60 and over	23.4	43.8	24.3	8.5
All	**12.3**	**47.3**	**29.6**	**10.7**

Table 36. Percentage distribution of adults by gender and by nutritional status based on BMI for Asian population: Philippines, 2003

Gender	CED (<18.5)	Low Risk (18.5 to <23.0)	Moderate Risk (23.0 to 27.4)	High Risk (≥27.5)
Male	10.6	52.7	38.2	8.4
Female	14.2	41.5	31.0	13.2
All	**12.3**	**47.3**	**29.6**	**10.7**

1.7 Trends in the nutritional status of adults

- The prevalence of CED decreased from 13.9 % in 1993 and 13.2 % in 1998 to 12.3 % in 2003, or a 1.6 percentage-point reduction in 10 years. This was about 4-5 % decrease each five-year period between 1993 and 2003.

- Among the middle-aged and older adults, CED decreased by 4.1 and 5.7 percentage-points, respectively, over the ten-year period. CED among the 20–39 years old adults declined by a mere 0.4 percentage-point during the same period.

- The prevalence of overweight and obesity rose from 16.6 % in 1993 and 20.2 % in 1998, to 24.0 % in 2003, or a 7.4 percentage-point increase in ten years. This was a steady 19.0 to 21.0 % increase each five-year period between 1993 and 2003.

- From 1993 to 2003, the proportion of overweight and obese increased by 6.3 percentage-points, 7.6 percentage-points, and 7.7 percentage-points among the 20–39 years, 40–59 years and 60 years old and over, respectively.

- The proportion of overweight and obese increased by 6.5 percentage-points among male adults, and 8.7 percentage-points among female adults, over the ten-year period.

Table 37. Trends in the prevalence of underweight and overweight among adults: Philippines, 1993 – 2003

Gender/Age	CED			Overweight/Obese		
	1993	1998	2003	1993	1998	2003
	% Prevalence					
Male	11.5	11.1	10.6	14.4	17.0	20.9
Female	16.1	15.4	14.2	18.6	23.3	27.3
Both						
20-39	11.0	11.2	10.6	14.4	18.5	20.6
40-59	14.5	12.0	10.4	23.2	25.3	30.8
60&over	29.1	25.4	23.4	11.4	14.6	19.1
All	13.9	13.2	12.3	16.6	20.2	24.0

1.8 Pregnant Women

- 73 in every 100 of the pregnant women are considered not nutritionally at-risk and 27 out of 100 are nutritionally at-risk.

Table 38. Percentage distribution of pregnant women, by weight-for-height classification: Philippines, 2003

Classification	Percent Distribution
Nutritionally at-risk (<P95)	26.6
Not Nutritionally at-risk (≥P95)	73.4

1.9 Lactating Mothers

- 71 in every 100 of the lactating women are considered normal, 12 are underweight and 18 are overweight for their height

Table 39. Percentage distribution of lactating mothers by nutritional status: Philippines, 2003

Classification	Percent Distribution
Underweight	11.7
Normal	70.7
Overweight	17.6

1.10 Trends in the Prevalence of Malnutrition of Pregnant Women and Lactating Mothers

Pregnant Women

- The proportion of nutritionally at-risk pregnant women decreased by 4.1 % from 1998 to 2003 representing a decrease of 0.82 percentage points a year.

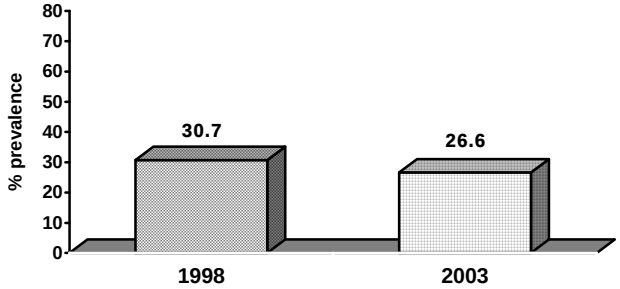

Figure 11. Comparison in the prevalence of nutritionally-at-risk pregnant women: Philippines, 1998 and 2003

Lactating Mothers

- The prevalence of underweight among lactating mothers decreased by 1.5 % from 1998 to 2003 showing a decrease of 0.3 percentage point per year.
- The prevalence of overweight lactating mothers increased by 4.0 % from 1998 to 2003 or an average of 0.8 % increase per year.

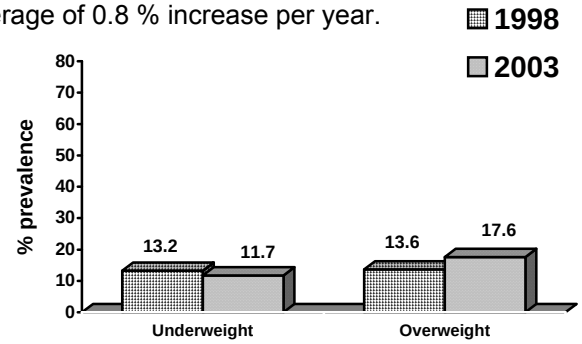

Figure 12. Comparison in the prevalence of underweight and overweight among lactating mothers: Philippines, 1998 and 2003

2. At the Regional Level

2.1 Preschool-age children, 0-5 years-old

- Estimates of the proportion of underweight and underheight among the 0-5 year-old children with the various indicators of reliability of estimates are shown in Table 39 and 40

- Based on the cut-off of reliability used by NSO, these regions with coefficient of variation (CV) equal to 15% or more are unreliable estimates for the region

- The regions of Northern Mindanao, Davao, and CAR have CVs of more than 15%, indicating that estimates of underweight have wide confidence intervals (CI).

Table 40. Estimates of the proportion of underweight among 0-5 year-old children, standard error, confidence interval, margin of error, and coefficient of variation: Philippines, 2003

Region	Sample Size	% Under-weight	Standard Error	90% Confidence Interval		Margin of Error	% CV
				LL	UL		
Philippines	**4111**	**26.9**	**0.8**	**25.2**	**28.5**	**1.6**	**3.1**
• Ilocos	227	28.9	4.2	20.6	37.1	8.2	14.5
• Cagayan Valley	182	34.1	3.3	27.6	40.6	6.5	9.7
• Central Luzon	325	21.7	2.3	17.1	26.2	4.6	10.7
• IV-A. CALABARZON	385	22.4	2.5	17.6	27.3	4.8	11.0
• IV-B. MIMAROPA	180	34.2	3.4	27.6	40.8	6.6	9.8
• Bicol	268	32.8	3.5	26.0	39.6	6.8	10.5
• Western Visayas	252	32.6	3.3	26.1	39.1	6.5	10.1
• Central Visayas	278	29.4	3.5	22.7	36.0	6.6	11.5
• Eastern Visayas	263	29.9	3.0	24.1	35.7	5.8	9.9
• Zamboanga Peninsula	169	31.5	3.5	24.7	38.4	6.8	11.0
• Northern Mindanao	176	24.3	4.3	15.8	32.9	8.5	17.9
• Davao	192	22.6	3.6	15.5	29.8	7.2	16.1
• SOCCSKSARGEN	229	30.3	3.1	24.3	36.3	6.0	10.1
• CARAGA	221	30.2	3.0	24.3	36.0	5.8	9.8
• NCR	396	17.8	2.5	12.9	22.7	4.9	14.0
• CAR	152	16.3	3.2	9.9	22.6	6.3	19.8
• ARMM	216	34.0	3.2	27.9	40.2	6.2	9.3

- Among the regions, Northern Mindanao, Davao and MIMAROPA have CVs of more than 15% indicating that estimates have wide confidence intervals

Table 41. Estimates of the proportion of underheight among 0-5 year-old children, standard error, confidence interval, margin of error and coefficient of variation: Philippines, 2003

Region	Sample Size	% Under-height	Standard Error	90% Confidence Interval		Margin of Error	% CV
				LL	UL		
Philippines	**4111**	**29.9**	**0.9**	**28.1**	**31.7**	**1.8**	**3.0**
• Ilocos	227	28.6	2.9	22.9	34.2	5.6	10.0
• Cagayan Valley	182	35.4	4.4	26.7	44.1	8.7	12.5
• Central Luzon	325	18.3	2.6	13.1	23.5	5.2	14.4
• IV-A. CALABARZON	385	22.7	2.8	17.2	28.2	5.5	12.3
• IV-B. MIMAROPA	180	32.5	5.0	22.8	42.2	9.7	15.3
• Bicol	268	29.8	2.9	24.1	35.6	5.7	9.8
• Western Visayas	252	35.8	3.4	29.0	42.5	6.8	9.6
• Central Visayas	278	36.6	3.4	30.8	43.3	6.7	9.3
• Eastern Visayas	263	37.8	3.8	30.3	45.4	7.6	10.2
• Zamboanga Peninsula	169	42.8	3.4	36.2	49.3	6.6	7.9
• Northern Mindanao	176	29.3	4.7	0	38.6	9.3	16.1
• Davao	192	31.4	4.9	21.8	41.1	9.7	15.7
• SOCCSKSARGEN	229	41.2	5.1	31.3	51.1	9.9	12.3
• CARAGA	221	32.2	3.6	25.2	39.2	7.0	11.1
• NCR	396	22.0	2.8	16.6	27.5	5.5	12.6
• CAR	152	30.0	4.0	22.1	37.9	7.9	13.4
• ARMM	216	35.9	2.7	30.5	41.2	5.3	7.5

2.2 School-age children, 6-10 years-old

- The regions of Cagayan Valley, Central Luzon, Mimaropa, Northern Mindanao, Davao, NCR and ARMM have CVs of more than 15%, which indicates that estimates have wide confidence intervals and data are not reliable at the regional level.

- On the other hand, all estimates of underheight in all the regions have CVs less than 15%, hence data are reliable at the regional level.

Table 42. Estimates of the proportion of underweight among 6-10 year-old children, standard error, confidence interval, margin of error and coefficient of variation: Philippines, 2003

Region	Sample Size	% Under-height	Standard Error	90% Confidence Interval		Margin of Error	% CV
				LL	UL		
Philippines	**3436**	**25.6**	**0.9**	**23.8**	**27.3**	**1.8**	**3.5**
• Ilocos	201	28.8	3.5	22.0	35.6	6.8	12.0
• Cagayan Valley	164	19.5	3.9	11.9	27.1	7.6	19.7
• Central Luzon	275	17.7	2.8	12.3	23.1	5.4	15.6
• IV-A. CALABARZON	280	22.5	2.5	17.5	27.5	5.0	11.3
• IV-B. MIMAROPA	176	32.2	4.9	22.6	41.9	9.6	15.2
• Bicol	205	36.1	3.7	28.8	43.4	7.3	10.3
• Western Visayas	221	30.8	3.4	24.1	37.4	6.7	11.0
• Central Visayas	262	25.0	3.6	17.9	32.1	7.1	14.5
• Eastern Visayas	225	35.0	4.3	26.5	43.4	8.5	12.3
• Zamboanga Peninsula	138	29.9	4.3	21.4	38.4	8.5	14.4
• Northern Mindanao	156	26.7	4.4	18.1	35.2	8.6	16.3
• Davao	150	22.3	3.4	15.7	28.8	6.6	15.1
• SOCCSKSARGEN	195	29.7	2.7	24.5	35.0	5.2	9.0
• CARAGA	186	31.7	3.9	24.1	39.3	7.6	12.2
• NCR	285	15.7	2.4	11.0	20.5	4.8	15.4
• CAR	132	21.7	4.4	13.1	30.3	8.6	20.2
• ARMM	185	23.7	4.1	15.6	31.8	8.1	17.5

Table 43. Estimates of the proportion of underheight among 6-10 year-old children, standard error, confidence interval, margin of error and coefficient of variation: Philippines, 2003

Region	Sample Size	% Under-weight	Stan-dard Error	90% Confidence Interval		Margin of Error	% CV
				LL	UL		
Philippines	**3436**	**35.8**	**1.0**	**33.8**	**37.9**	**2.1**	**2.9**
• Ilocos	201	26.9	3.0	20.9	32.8	5.9	11.2
• Cagayan Valley	164	30.0	4.1	21.9	38.0	8.1	13.7
• Central Luzon	275	23.4	2.8	18.0	28.9	5.5	11.9
• IV-A. CALABARZON	280	26.3	2.7	21.0	31.6	5.3	10.2
• IV-B. MIMAROPA	176	41.9	5.5	31.1	52.7	10.8	13.1
• Bicol	205	41.4	4.8	32.0	50.7	9.3	11.5
• Western Visayas	221	43.1	3.9	35.3	50.8	7.7	9.2
• Central Visayas	262	39.4	4.4	30.8	48.0	8.6	11.1
• Eastern Visayas	225	50.4	4.9	40.8	60.0	9.6	9.7
• Zamboanga Peninsula	138	54.6	4.6	45.6	63.6	9.0	8.4
• Northern Mindanao	156	40.7	4.6	31.7	49.7	9.0	11.2
• Davao	150	39.2	5.9	28.2	50.3	11.0	14.3
• SOCCSKSARGEN	195	42.4	4.8	32.9	51.9	9.5	11.4
• CARAGA	186	46.3	4.0	38.4	54.1	7.9	8.7
• NCR	285	25.5	3.0	19.6	31.5	5.9	11.8
• CAR	132	37.3	5.5	26.4	48.2	10.9	14.9
• ARMM	185	37.7	4.2	29.4	46.0	8.3	11.2