

# Key Findings of Child and Mother Nutrition Survey of Bangladesh 2005

**Table 1: Number of PSUs, households and children enumerated, CMNS 2005**

Number of PSUs			Number of households				Non-response (%)	Number of mothers measured	Number of children measured		
Rural	Urban	Total	Total	No survey child	Survey child present	Interviewed			Girls	Boys	Total
256	147	403	8060	4603	3457	3069	11.2	3176	1833	1964	3797

**Table 2: Household socio-demography and socio-economic status, CMNS 2005**

		Rural	Urban	National
Mean household size (persons)		5.8	5.7	5.8
Household (HH) size (%)	<4 persons	8.0	9.5	8.3
	4 - 5 persons	42.1	45.3	42.8
	6 - 7 persons	27.9	27.0	27.8
	8 + persons	22.0	18.1	21.2
Mean monthly HH income (Taka)		5,905	9,687	6,688
Sex of HH head (%)	Female	4.5	4.9	4.6
	Male	95.5	95.1	95.4
Educational status of head of HH (%)	Illiterate/never attended school	61.0	41.0	56.9
	Passed class I-V	18.1	17.8	18.0
	Passed class VI-IX	12.0	18.5	13.3
	Passed SSC/HSC & above	10.0	22.7	11.8
Main occupation of HH head (%)	Business	14.8	27.5	17.3
	Service and professional	27.8	49.3	32.1
	Agriculture, animal husbandry, forestry, fisheries	47.3	12.5	40.3
	Other	10.3	10.8	10.3
Roof materials of living room of the HH head (%)	Concrete	1.8	14.2	4.3
	Corrugated iron	85.1	81.7	84.5
	Others	13.0	4.1	11.2
Wall materials of living room of the HH head (%)	Brick	9.2	39.7	15.4
	Tin	35.3	31.3	34.5
	Others	55.5	28.9	50.1
Floor materials of living room of the HH head (%)	Concrete	6.7	43.1	14.1
	Earth	91.3	55.5	84.1
	Others	2.0	1.4	1.9
Main source of light (%)	Electricity	30.1	78.1	39.8
	Kerosene	69.7	21.8	60.1
	Solar Power	0.1	0.1	0.1

**Table 3: Household food security, CMNS 2005**

		Rural	Urban	National
Daily per capita consumption (kcal)		2,090	2,025	2,077
Homestead vegetable garden (%)		52.2	28.4	47.2
What do you do with the vegetable grown in your homestead (%)	Consume by members of household	84.1	93.1	85.3
	Consumed and sold	15.5	6.9	14.4
Taken loan to buy food during the last three months (%)		27.2	19.7	25.6
Household salt is iodized (%)		80.2	93.5	83.0

**Table 4: Household health environment and access to health services, CMNS 2005**

		Rural	Urban	National
Type of toilet facility (%)	Flush/sanitary/water seal	13.4	37.3	18.2
	Pit latrine	38.0	41.5	38.7
	Fixed kutcha	25.8	12.9	23.2
	Hanging latrine beside water/open space/no fixed space	22.8	8.3	19.9
Main source of drinking water (%)	Tube well	96.8	82.0	93.9
	Tap	0.4	17.0	3.8
	Other	2.8	1.0	2.4
Distance to nearest health facility (km) (%)	<1	8.5	23.6	11.6
	1-4	52.8	69.4	56.1
	5-9	23.9	6.4	20.4
	10+	14.8	0.6	11.9
Mean distance to nearest health facility (km)		4.8	1.8	4.2
Mean transport cost to go to nearest health centre (Taka)		26	15	23

**Table 5: Mother's background characteristics, CMNS 2005**

		Rural	Urban	National
Mother's mean age in years		28.2	27.8	28.1
Mother's age in years (%)	<18	1.7	2.1	1.8
	19-24	28.7	30.4	29.0
	25-29	30.3	30.8	30.4
	30-34	21.0	19.6	20.7
	35+	18.2	17.2	18
Marital status (%)	Currently married	98.7	96.8	98.3
	Never married, widowed divorced deserted	1.3	3.2	1.7
Mother's education status (%)	Illiterate/never attended school	50.7	33.0	47.0
	Passed class I-V	23.2	21.8	22.9
	Passed class VI-IX	18.8	26.8	20.5
	Passed SSC/HSC & above	7.2	18.4	9.6
Mother's occupation (%)	Housewife	97.5	95.4	97.1
	Blue collar	1.0	0.8	1.0
	White collar	1.5	3.8	2.0
Mother earned money in the last 3 months (%)		7.2	11.4	8.1
How mother earned money in last 3 months (%)	Business/service	16.0	21.8	17.7
	House maid	8.5	11.6	9.4
	Livestock/gardening	33.3	13.8	27.5

		Rural	Urban	National
	Hand work	15.4	23.4	17.7
	Others	27.0	29.4	27.7
How mother spent the money she earned in last 3 months (%)	Spend on children	33.1	28.9	31.8
	Spend on herself	18.1	15.1	17.2
	Other	48.9	56.0	50.9
Mother save some money from income during the last 3 months (%)		26.7	37.7	29.9

**Table 6: Reproductive health of mothers, CMNS 2005**

		Rural (%)	Urban (%)	National (%)
Mother's physiological status	Not pregnant or breastfeeding	1.9	2.4	2.0
	Pregnant	3.9	2.9	3.7
	Breastfeeding	97.1	96.7	97.1
	Pregnant and breastfeeding	3.2	2.3	3.0
Age in years at first marriage in years	<18	71.4	62.0	69.4
	18 - 19	19.5	25.2	20.7
	20+	9.2	12.8	9.9
Mother's age at first pregnancy in years	<18	41.8	35.0	40.4
	18 -19	32.6	32.0	32.5
	20+	25.6	33.1	27.1
Number of live births	1-2	51.9	61.5	53.9
	3-4	31.3	28.1	30.6
	5+	16.8	10.4	15.5

**Table 7: Mother's participation in decisions on use of household resources, CMNS 2005**

Who makes the decisions on:		Rural (%)	Urban (%)	National (%)
How much money the household spends on food	Mother only	5.2	6.4	5.4
	Husband only	47.8	44.3	47.1
	Mother and other household member(s) jointly	32.0	34.8	32.6
	Other household member(s)	14.9	14.6	14.9
What food is bought for the household	Mother only	6.2	9.5	6.8
	Husband only	44.8	41.2	44.1
	Mother and other household member(s) jointly	33.8	35.2	34.0
	Other household member(s)	15.3	14.1	15.0
What food is cooked for the household	Mother only	49.5	56.7	50.9
	Husband only	10.6	6.1	9.7
	Mother and other household member(s) jointly	27.5	25.3	27.1
	Other household member(s)	12.3	12.0	12.3
Whether mother attends a health facility for her own health needs	Mother only	5.3	7.1	5.6
	Husband only	38.8	40.3	39.1
	Mother and other household member(s) jointly	40.8	40.5	40.7
	Other household member(s)	15.2	12.0	14.6
Whether mothers child	Mother only	4.7	7.3	5.2

Who makes the decisions on:		Rural (%)	Urban (%)	National (%)
	Husband only	38.8	38.8	38.8
	Mother and other household member(s) jointly	41.5	42.1	41.6
	Other household member(s)	15.0	11.8	14.4

**Table 8: Mother's knowledge on breastfeeding and complementary feeding practices, CMNS 2005**

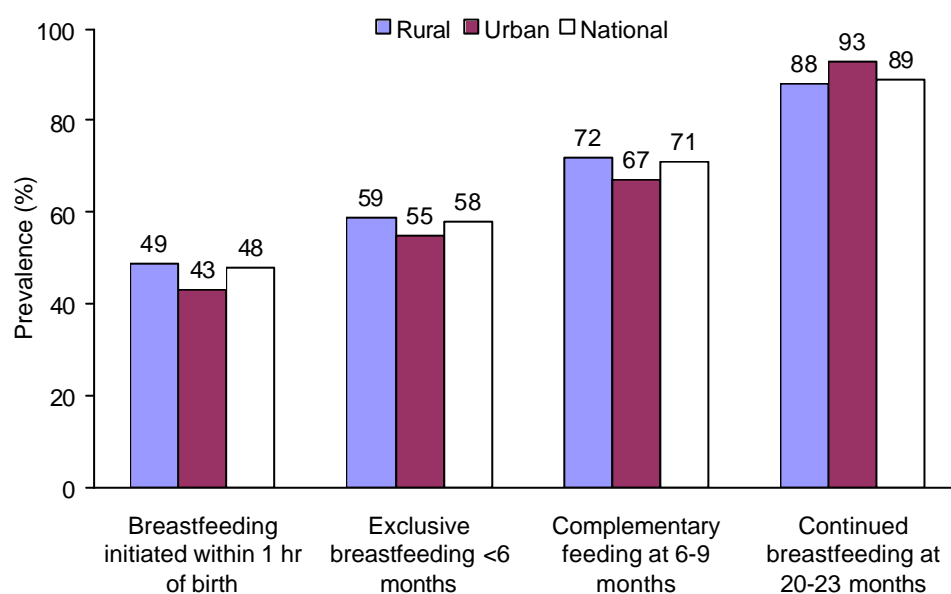
		Rural (%)	Urban (%)	National (%)
Number of months a child should be exclusively breastfed	<4	4.5	4.4	4.5
	4-5	34.0	37.4	34.7
	6	30.9	38.9	32.6
	7+	3.2	2.6	3.1
	Don't know	27.3	16.7	25.1
At what month of age should a child be given complementary food	<4	1.5	1.8	1.6
	4-5	12.2	8.8	11.5
	6	38.8	46.8	40.4
	7+	25.9	30.8	26.9
	Don't know	21.5	11.9	19.5
At what month of age a child should be given family food	<4	0.2	0	0.2
	4-5	1.7	1.2	1.6
	6	12.7	14.4	13.1
	7+	69.2	75.6	70.6
	Don't know	16.1	8.8	14.6

**Table 9: Mother's reported breastfeeding and complementary feeding practices, CMNS 2005**

		Rural	Urban	National
Baby weighed within 3 days of delivery (%)		10.3	28.3	13.8
Colostrum given (%)		87.7	83.4	86.9
Prelacteal feed given (%)		63.4	56.5	62.1
Initiation of breastfeeding in hours (%)	<1	49.3	43.2	48.1
	1-24	29.8	39.4	31.7
	>24	20.3	16.4	19.5
	Never breastfed	0.1	0.2	0.1
	Do not know	0.5	0.8	0.6
Exclusively breastfed at different ages in months (%)	<1	78.2	93.1	80.8
	1	83.1	61.5	79.4
	2	57.5	63.0	58.5
	3	56.6	37.3	53.7
	4	41.6	51.9	44.8
	5	40.7	42.5	41.0
	<6	59.1	55.3	58.4
	6	50.7	52.6	51.1
	7	64.3	68.5	65.4
	8	90.4	76.7	88.3
	9	82.9	80.1	82.5
	6-9	71.6	66.6	70.6

		Rural	Urban	National
Mean age in months given first family food (SD)		7.8 (2.6)	8.2 (2.6)	7.9 (2.6)
Child currently breastfed by age of child in months (%)	0 - 11	98.9	98.7	98.9
	12 - 15	98.2	96.5	98.0
	20 - 23	87.8	92.8	88.8
	Total	96.6	97.1	96.7
Ever bottle-fed by age in months (%)	0 - 5	39.7	49.8	40.3
	6 - 11	29.7	43.0	32.3
	12 - 17	21.2	40.0	24.4
	18 - 23	24.7	34.0	26.6
	Total	25.2	38.8	27.6
Ever given cow's/goat's/powder milk by age in months (%)	0 - 5	65.0	49.8	64.2
	6 - 11	52.8	60.9	54.4
	12 - 17	53.8	74.9	57.4
	18 - 23	61.4	64.3	62.0
	Total	56.4	67.1	58.4

**Figure 1: Infant and young child feeding indicators tracking child survival (MDG 4) by area of residence, CMNS 2005**



**Table 10: Reported caring practices of child with diarrhoea, CMNS 2005**

		Rural (%)	Urban (%)	National (%)
Knowledge to prepare salt-molasses solution		75.7	89.5	78.5
Liquids/medicine given to children with diarrhea	ORS	83.0	89.0	84.3
	Salt-molasses or rice saline	25.0	40.4	28.4
	Breast milk	55.8	56.9	56.0
	Water	65.6	67.6	66.1
	Other liquid	19.8	19.3	19.7
	Medicine	82.5	77.6	81.4
Amount of liquid given to child with diarrhoea compared	Less	34.7	35.2	34.8
	Same	15.3	13.1	14.8
	More	49.2	50.6	49.5

		Rural (%)	Urban (%)	National (%)
	Do not know	0.8	1.1	0.8
Amount of food given to child with diarrhea compared to normal	Less	66.2	69.7	66.9
	Same	15.5	13.6	15.1
	More	17.3	16.4	17.1
	Do not know	1.0	0.3	0.9

**Table 11: Coverage of vitamin A supplementation and deworming in children, CMNS 2005**

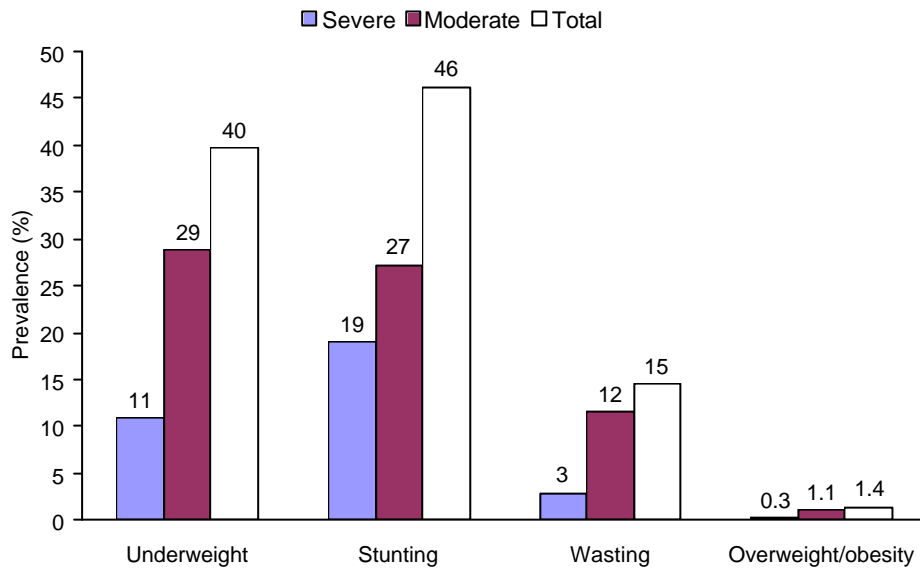
	Rural (%)	Urban (%)	National (%)
Vitamin A Capsule with his/her measles vaccine (12-23 months)	92.8	92.2	92.7
Vitamin A Capsule during the previous Vitamin A Campaign (12-59 months)	92.2	93.9	92.6
Deworming tablet during the last Vitamin A Campaign (24-59 months)	87.4	84.9	86.9

**Table 12: Maternal caring practices during pregnancy, delivery and postpartum, CMNS 2005**

		Rural (%)	Urban (%)	National (%)
Number of antenatal check-ups	0	22.8	12.1	20.6
	1-2	46.4	37.7	44.6
	3+	30.5	49.9	34.5
	Don't know	0.3	0.3	0.3
ANC provider <sup>a,b</sup>	Doctor/Nurse/FWV/FWA/MA/HA	66.3	83.0	70.2
	Trained SBA/TBA	29.1	16.4	26.2
	Untrained TBA/unqualified medical practitioner	3.1	0.5	2.5
	Others	1.4	0.1	1.1
Taken Tetanus Toxoid during pregnancy		97.7	96.7	97.4
Number of times weight was checked during pregnancy	0	57.2	33.5	51.8
	1-2	26.1	30.9	27.2
	3	7.0	8.1	7.2
	4+	9.8	27.5	13.8
Number of months took iron tablets during pregnancy	0	60.4	43.6	56.9
	1-2	20.4	23.2	21.0
	3	8.6	12.8	9.5
	4+	10.6	20.4	12.6
Food eaten in pregnancy compared with before	Less	40.4	40.6	40.5
	Same	46.7	40.8	45.5
	More	12.9	18.6	14.0
Rest taken in pregnancy compared with before	Less	22.2	19.9	21.7
	Same	59.4	52.4	57.9
	More	18.4	27.7	20.4
Place of delivery	Health facility	8.5	28.8	12.6
	Home delivery	91.3	71.3	87.2
	Other	0.2	0	0.2

		Rural (%)	Urban (%)	National (%)
Birth attendant <sup>a</sup>	Doctor/Nurse/FWV/HA	9.3	31.8	13.9
	Trained SBA/TBA	9.0	18.9	11.0
	Untrained TBA	19.9	15.1	18.9
	Neighbour/relatives/others	61.8	34.3	56.1
Taken vitamin A capsule within 6 weeks of delivery		16.5	24.4	18.1

**Figure 2: Prevalence of underweight, stunting, wasting and overweight/obesity in children aged <5 years (WHO 2005 GRS), CMNS 2005**



**Table 13: Mean weight, height, MUAC and anthropometric indices in children aged <5 years by sex and area of residence, CMNS 2005**

Indicator	Rural						Urban						National					
	Girl		Boy		Total		Girl		Boy		Total		Girl		Boy		Total	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Age (mo)	30.1	16.8	30.3	17.2	30.2	17.0	29.8	17.0	31.1	17.3	30.5	17.2	30.5	17.3	30.0	16.9	30.3	17.1
Weight (kg)	10.0	2.9	10.6	2.9	10.3	2.9	10.5	3.3	11.3	3.3	10.9	3.3	10.7	3.0	10.1	3.0	10.4	3.0
Height (cm)	81.9	12.5	83.4	12.6	82.7	12.6	83.3	13.1	85.2	13.1	84.3	13.1	83.8	12.8	82.2	12.6	83.0	12.7
MUAC (mm)	141	11	143	10	142	11	145	13	147	13	146	13	144	11	142	12	143	1.1
WAZ <sub>WHO</sub>	-1.77	1.16	-1.78	1.08	-1.77	1.12	-1.41	1.20	-1.39	1.22	-1.40	1.21	-1.70	1.13	-1.70	1.17	-1.70	1.15
HAZ <sub>WHO</sub>	-1.87	1.55	-1.88	1.56	-1.87	1.55	-1.39	1.58	-1.58	1.47	-1.49	1.52	-1.81	1.55	-1.77	1.56	-1.79	1.56
WHZ <sub>WHO</sub>	-0.96	1.26	-1.05	1.24	-1.01	1.25	-0.86	1.24	-0.74	1.32	-0.80	1.29	-0.99	1.26	-0.94	1.25	-0.96	1.26
BAZ <sub>WHO</sub>	-0.80	1.32	-0.82	1.32	-0.81	1.32	-0.73	1.27	-0.56	1.36	-0.64	1.32	-0.76	1.33	-0.78	1.31	-0.77	1.32
MUACZ	-1.62	0.72	-1.63	0.71	-1.63	0.71	-1.34	0.78	-1.33	0.82	-1.34	0.80	-1.57	0.74	-1.57	0.74	-1.57	0.74

**Table 14: Prevalence of malnutrition in children aged <5 years by sex, age, area of residence and season, CMNS 2005**

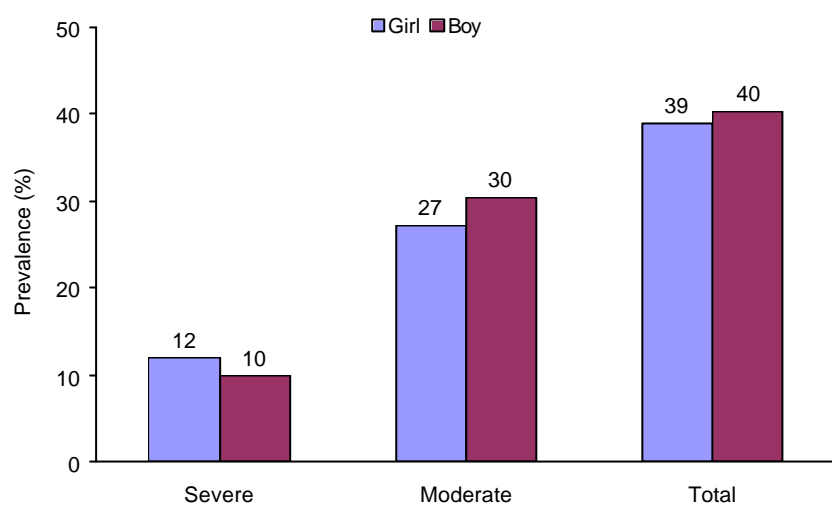
Characteristic	Underweight (%) (WAZ <sub>WHO</sub> )	Stunted (%) (HAZ <sub>WHO</sub> )	Wasted (%) (WHZ <sub>WHO</sub> )	Overweight (%) (BAZ <sub>WHO</sub> )
<b>Sex of child</b>				
Girl	39.0	45.3	14.5	1.6
Boy	40.3	47.1	14.5	1.2
<b>Age group of child (months)</b>				
0 - 5	26.2	13.6	24.1	1.2
6 - 11	30.7	21.8	19.0	0.9
12 - 17	42.3	40.4	22.2	2.5
18 - 23	42.0	57.9	14.5	2.3
24 - 35	41.5	53.3	13.8	1.5
36 - 47	43.6	57.4	9.4	1.2
48 - 59	40.8	48.7	10.9	0.7
<b>Age group of child (months)</b>				
0 – 23	35.9	34.5	19.8	1.1
24 – 59	42.0	53.2	11.3	1.4
<b>Area of residence</b>				
Rural	42.2	48.8	15.1	1.3
Urban	29.9	35.9	12.2	1.9
<b>Division</b>				
Barisal	41.6	52.9	14.7	3.4
Chittagong	39.7	51.5	13.4	1.2
Dhaka	39.6	42.9	15.3	1.7
Khulna	35.1	43.6	8.4	0.1
Rajshahi	41.1	45.7	16.6	1.4
Sylhet	40.5	47.0	15.4	1.0
<b>Season</b>				
Winter	36.2	49.3	11.8	1.7
Summer	39.0	40.8	17.3	0.4
Rainy	42.3	48.1	15.1	1.7
Autumn	40.2	45.8	13.7	1.6
<b>National prevalence</b>	39.7	46.2	14.5	1.4

**Table 15: Prevalence of moderate and severe malnutrition in children aged <5 years by sex and area of residence, CMNS 2005**

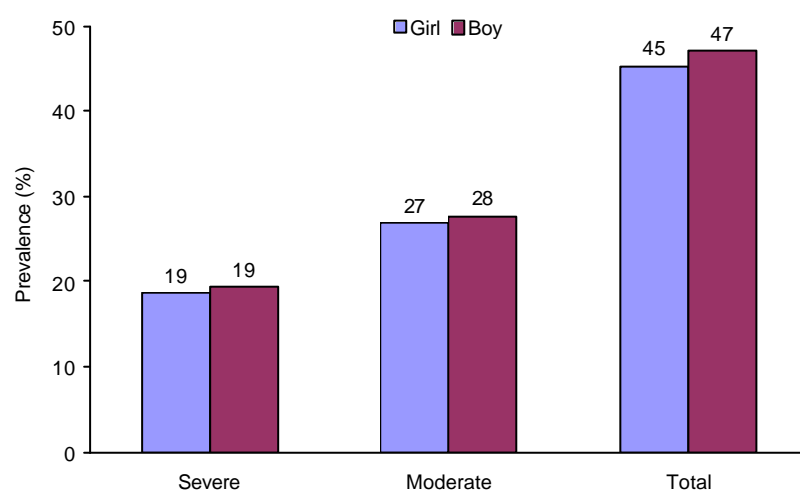
Indicator <sup>a</sup>		Rural (%)			Urban (%)			National (%)		
		Girl	Boy	Total	Girl	Boy	Total	Girl	Boy	Total
Underweight (WAZ <sub>WHO</sub> )	Moderate	28.3	32.3	30.3	22.6	23.2	22.9	27.1	30.4	28.8
	Severe	13.1	10.7	11.9	7.1	6.9	7.0	11.9	9.9	10.9
	Total	41.3	43.0	42.2	29.7	30.1	29.9	39.0	40.3	39.7
Stunting (HAZ <sub>WHO</sub> )	Moderate	28.2	28.8	28.5	20.9	23.2	22.1	26.8	27.7	27.2
	Severe	20.0	20.6	20.3	12.8	14.7	13.8	18.6	19.4	19.0
	Total	48.2	49.4	48.8	33.7	38.0	35.9	45.3	47.1	46.2
Wasting (WHZ <sub>WHO</sub> )	Moderate	12.2	11.8	12.0	11.3	8.5	9.8	12.0	11.1	11.6
	Severe	2.6	3.5	3.0	2.0	2.7	2.4	2.5	3.3	2.9
	Total	14.8	15.3	15.1	13.3	11.2	12.2	14.5	14.5	14.5
Obesity (BAZ <sub>WHO</sub> )	Moderate	1.3	0.7	1.0	1.1	1.5	1.3	1.2	0.9	1.1
	Severe	0.4	0.3	0.3	0.2	0.4	0.3	0.3	0.3	0.3
	Total	1.6	1.0	1.3	1.4	1.9	1.6	1.6	1.2	1.4
MUACZ	Moderate	25.5	27.8	26.7	16.5	17.2	16.9	23.8	25.6	24.7
	Severe	2.9	2.3	2.6	1.6	1.3	1.4	2.7	2.1	2.4
	Total	28.4	30.1	29.3	18.1	18.5	19.3	26.5	27.7	27.1
MUAC <125 mm		6.2	3.4	4.8	2.7	2.2	2.4	5.6	3.2	4.3
MUAC <110 mm		0.3	0.2	0.2	0.3	0.0	0.1	0.3	0.1	0.2

<sup>a</sup> Moderate -3.00 to -2.01; severe <-3.00; total <-2.00

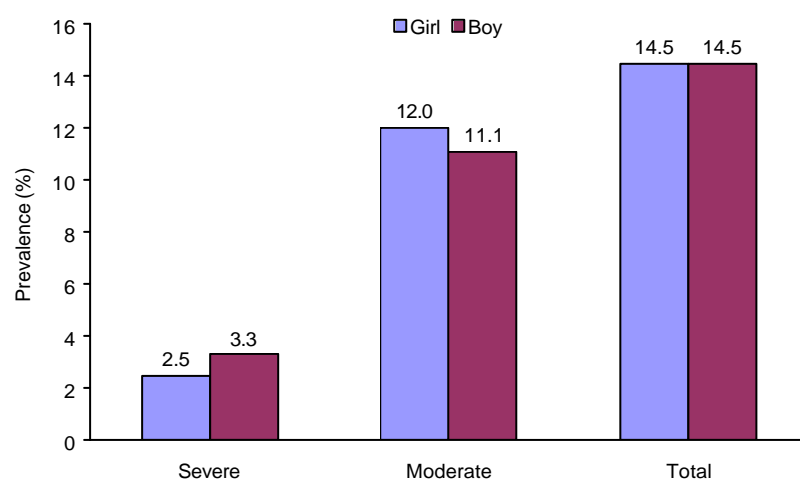
**Figure 3: Prevalence of underweight ( $WAZ_{WHO}$ ) in children aged <5 years by sex, CMNS 2005**



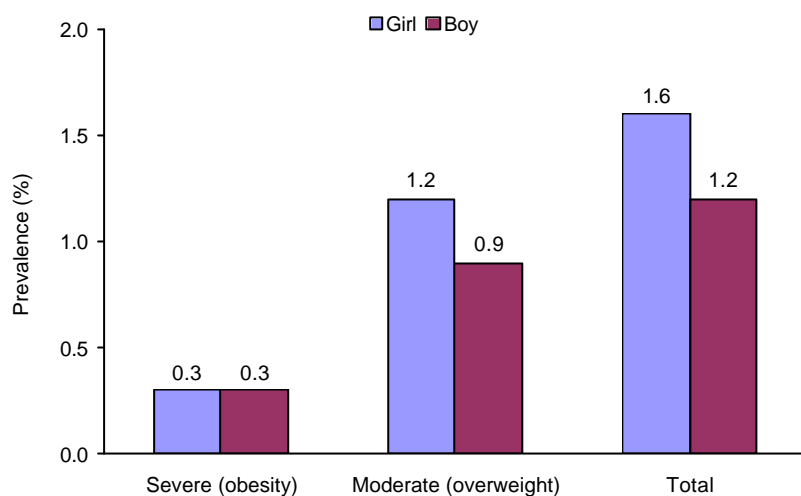
**Figure 4: Prevalence of stunting ( $HAZ_{WHO}$ ) in children aged <5 years by sex, CMNS 2005**



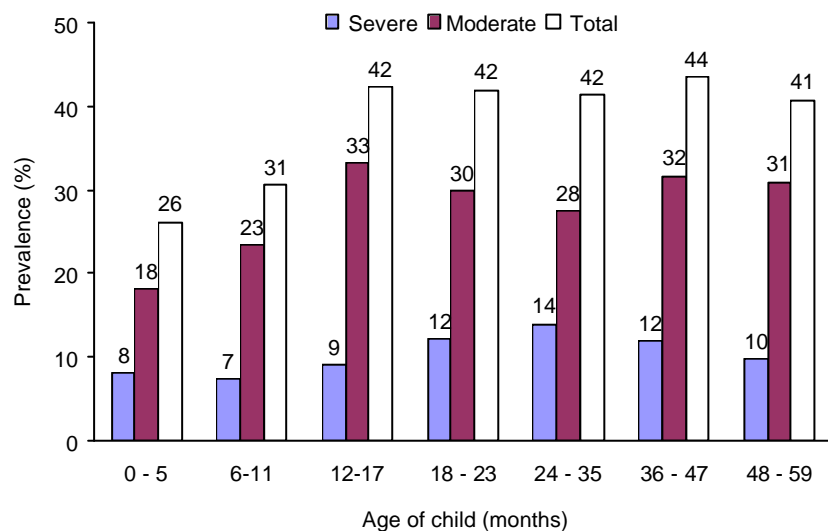
**Figure 5: Prevalence of wasting ( $WHZ_{WHO}$ ) in children aged <5 years by sex, CMNS 2005**



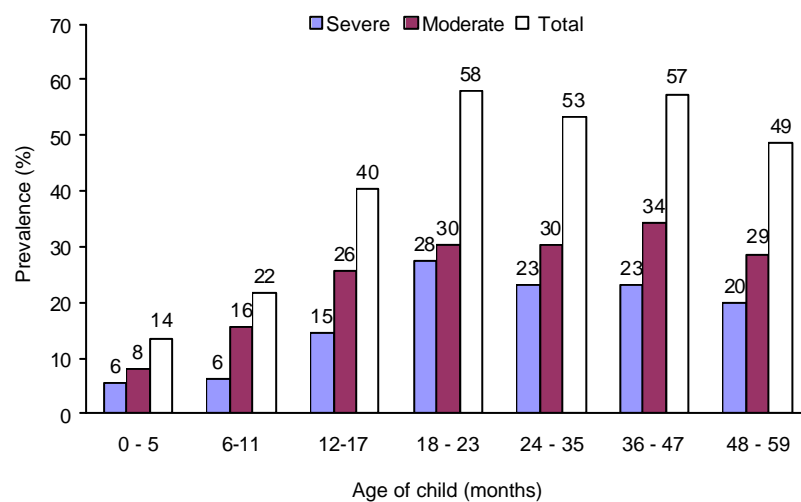
**Figure 6: Prevalence of overweight/obesity ( $BAZ_{WHO}$ ) in children aged <5 years by sex, CMNS 2005**



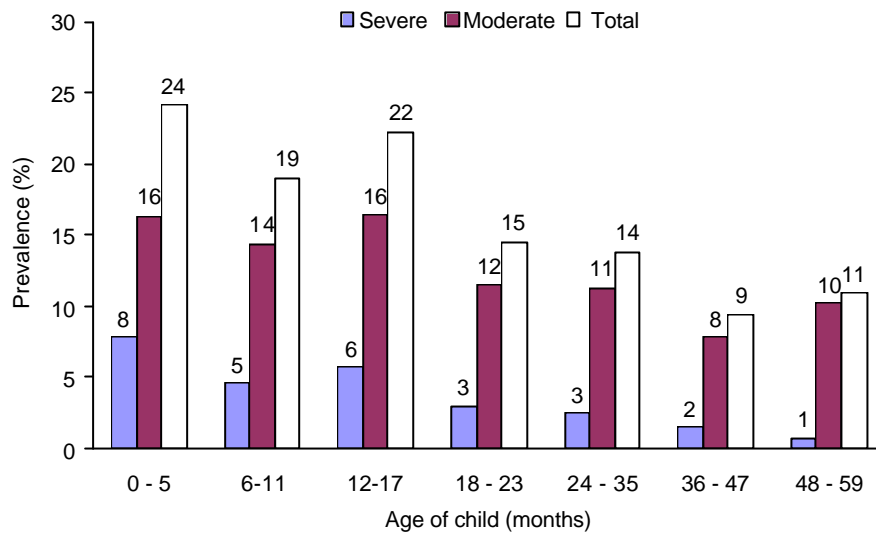
**Figure 7: Prevalence of underweight ( $WAZ_{WHO}$ ) in children aged <5 years by age group, CMNS 2005**



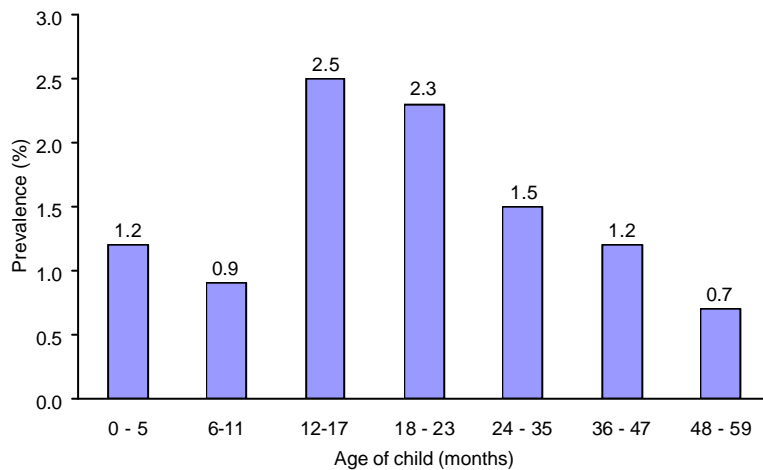
**Figure 8: Prevalence of stunting ( $HAZ_{WHO}$ ) in children aged <5 years by age group, CMNS 2005**



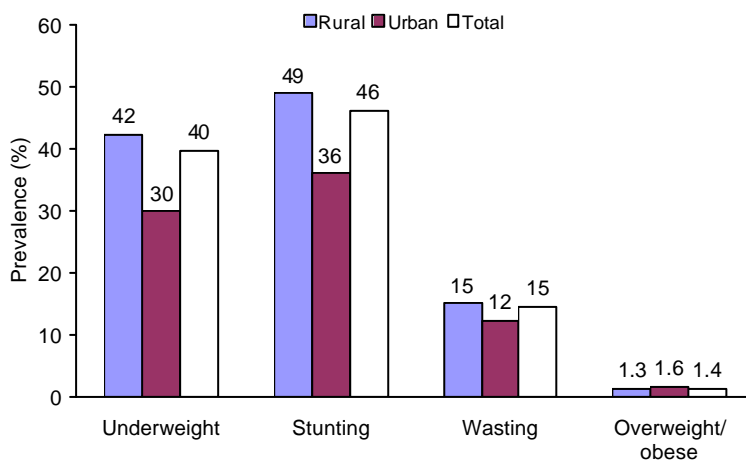
**Figure 9: Prevalence of wasting (WHZ<sub>WHO</sub>) in children aged <5 years by age group, CMNS 2005**



**Figure 10: Prevalence of overweight/obesity (BAZ<sub>WHO</sub>) in children aged <5 years by age group, CMNS 2005**



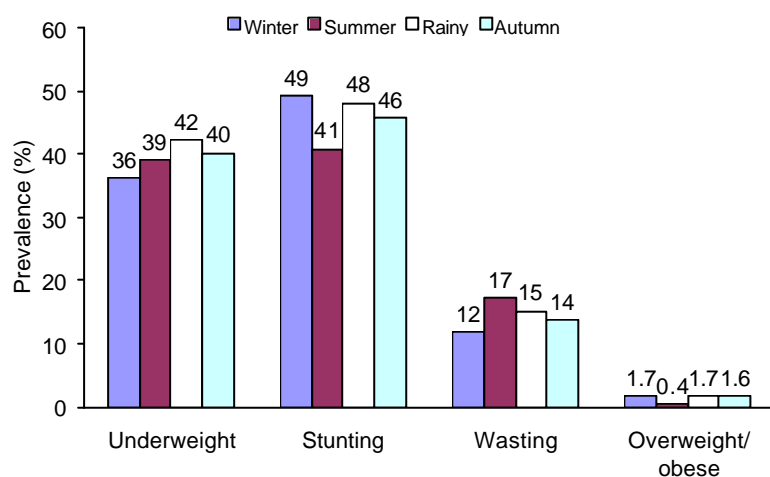
**Figure 11: Prevalence of underweight, stunting, wasting and obesity in children aged <5 years by area of residence (WHO 2005 GRS) , CMNS 2005**



**Table 16: Prevalence of malnutrition in children aged <5 years by division and area of residence, CMNS 2005**

		Barisal (%)	Chittagong (%)	Dhaka (%)	Khulna (%)	Rajshahi (%)	Sylhet (%)	National (%)
Underweight (WAZ <sub>WHO</sub> <-2)	Rural	41.5	41.0	45.3	36.4	42.3	42.4	42.2
	Urban	42.5	35.0	26.4	28.8	33.0	20.4	29.9
	Total	41.6	39.7	39.6	35.1	41.1	40.5	39.7
Stunted (HAZ <sub>WHO</sub> <-2)	Rural	52.7	54.1	47.5	45.0	46.8	49.2	48.8
	Urban	54.0	41.5	32.1	36.5	38.0	24.1	35.9
	Total	52.9	51.5	42.9	43.6	45.7	47.0	46.2
Wasted (WHZ <sub>WHO</sub> <-2)	Rural	14.9	13.5	17.0	7.6	17.0	16.2	15.1
	Urban	13.8	12.8	11.3	12.8	14.3	7.4	12.2
	Total	14.7	13.4	15.3	8.4	16.6	15.4	14.5
Overweight (BAZ <sub>WHO</sub> >2)	Rural	3.7	1.0	1.6	0	1.5	0.5	1.3
	Urban	1.1	1.7	1.9	0.6	0.7	5.6	1.6
	Total	3.4	1.2	1.7	0.1	1.4	1.0	1.4

**Figure 12: Prevalence of underweight, stunting, wasting and obesity in children aged <5 years by season (WHO 2005 GRS) , CMNS 2005**



**Table 17: Prevalence of malnutrition in children aged <5 years by recent health status, CMNS 2005**

Disease in the previous 2 weeks	Underweight (%) (WAZ <sub>WHO</sub> )	Stunted (%) (HAZ <sub>WHO</sub> )	Wasted (%) (WHZ <sub>WHO</sub> )	Overweight (%) (BAZ <sub>WHO</sub> )
<b>Diarrhoea</b>				
Yes	46.1	46.3	17.3	1.4
No	39.6	46.2	14.4	1.4
<b>Fever and cough</b>				
Yes	42.9	44.8	20.1	0.9
No	38.7	46.7	12.7	1.5
<b>National prevalence</b>	<b>39.7</b>	<b>46.2</b>	<b>14.5</b>	<b>1.4</b>

**Table 18: Prevalence of malnutrition in children aged <5 years by maternal characteristics, CMNS 2005**

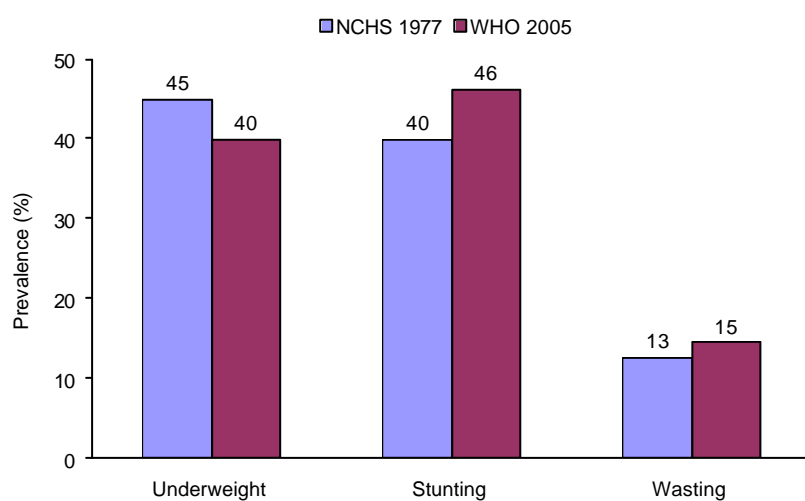
	Underweight (%) (WAZ <sub>WHO</sub> )	Stunted (%) (HAZ <sub>WHO</sub> )	Wasted (%) (WHZ <sub>WHO</sub> )	Overweight (%) (BAZ <sub>WHO</sub> )
<b>Mother's education status</b>				
Illiterate/never attended school	46.8	52.4	17.3	0.7
Passed class I-V	38.8	45.5	14.1	2.1
Passed class VI-IX	33.0	41.5	10.9	1.3
Passed SSC/HSC & above	21.4	24.7	9.2	2.1
<b>Mother's age in years</b>				
19-24	37.5	44.7	13.8	1.7
25-29	39.1	45.7	14.4	1.4
30-34	40.6	45.1	16.0	1.2
35+	45.1	51.2	14.0	0.7
<b>Mother's occupation</b>				
Housewife	40.3	46.2	14.8	1.3
Working (white/blue collar)	31.3	46.1	5.4	0.6
<b>Mother's nutritional status</b>		<sup>NS</sup>	<sup>NS</sup>	
Chronic energy deficiency	46.8	52.4	17.3	0.7
Normal	38.8	45.5	14.1	2.1
Overweight/obesity	33.0	41.5	10.9	1.3
<b>National prevalence<sup>a</sup></b>	<b>40.0</b>	<b>46.2</b>	<b>14.5</b>	<b>1.3</b>

**Table 19: Other associations of malnutrition in children aged <5 years, CMNS 2005**

Characteristic	Underweight (%) (WAZ <sub>WHO</sub> )	Stunted (%) (HAZ <sub>WHO</sub> )	Wasted (%) (WHZ <sub>WHO</sub> )	Overweight (%) (BAZ <sub>WHO</sub> )
<b>HH wealth index quintiles</b>				
Poorest	48.7	54.0	19.3	0.8
Second	44.6	50.4	16.5	1.2
Middle	43.7	51.7	15.6	1.6
Fourth	37.3	44.5	11.0	1.2
Richest	24.9	29.8	10.4	2.2
<b>HH cultivated land (acres)<sup>e</sup></b>				
00.00	42.0	48.3	15.4	1.2
0.01 – 0.99	39.6	47.7	13.6	1.3
1.00 – 1.99	36.6	40.6	14.9	1.2
2.00 – 4.99	32.5	34.7	12.9	2.8
5.00+	29.3	38.5	12.6	2.8
<b>Annual HH income (Taka)</b>				
<35,000	42.1	49.3	15.2	1.2
35,000 – 49,999	46.0	51.1	17.8	1.1
50,000 – 64,999	40.6	47.0	15.3	1.0
65,000 – 79,999	41.4	48.3	11.5	1.6
80,000+	32.5	38.4	12.5	1.9
<b>Annual HH expenditure (Taka)</b>				
<35,000	45.1	50.6	16.4	1.1
35,000 – 49,999	42.5	50.6	15.5	1.4
50,000 – 64,999	40.0	46.2	15.0	1.3
65,000 – 79,999	44.2	52.0	13.3	0.6
80,000+	31.7	36.5	12.7	1.9
<b>Per capita kilocal consumption</b>				

Characteristic	Underweight (%) (WAZ <sub>WHO</sub> )	Stunted (%) (HAZ <sub>WHO</sub> )	Wasted (%) (WHZ <sub>WHO</sub> )	Overweight (%) (BAZ <sub>WHO</sub> )
<b>HH wealth index quintiles</b>				
<1,600	44.4	47.5	18.9	1.1
1,600-1,849	40.0	49.7	14.1	1.3
1,850-2,122	44.6	49.3	16.3	0.7
2,122+	35.7	42.1	12.6	1.9
<b>Homestead garden</b>				
Yes	38.6	46.4	13.7	1.6
No	40.7	46.0	15.2	1.2
<b>Taken loan to buy food</b>				
Yes	44.8	50.9	17.2	1.2
No	37.9	44.5	13.5	1.5
<b>Main source of drinking water</b>				
Tube well	40.4	46.8	14.5	1.3
Tap	21.9	24.1	12.6	2.5
Other	40.0	57.4	18.9	3.3
<b>Type of toilet facility</b>				
Flush/sanitary/water seal	27.4	33.7	10.7	2.4
Pit latrine	38.1	46.0	13.1	1.3
Fixed kutcha	45.4	52.1	15.8	0.9
Hanging latrine beside water/open space/no fixed space	47.6	51.3	19.2	1.2
<b>Affected by 2004 Monsoon floods</b>				
Yes	42.2	48.1	14.2	0.9
No	37.6	44.6	14.7	1.8
<b>Sex of household head</b>				
Male	40.1	46.3	14.7	1.4
Female	32.6	45.4	10.1	1.8
<b>National prevalence</b>	<b>39.7</b>	<b>46.2</b>	<b>14.5</b>	<b>1.4</b>

**Figure 13: Comparison of the prevalence of underweight, stunting and wasting in children aged <5 years estimated using the WHO 2005 GRS and NCHS 1977 GRS, CMNS 2005**



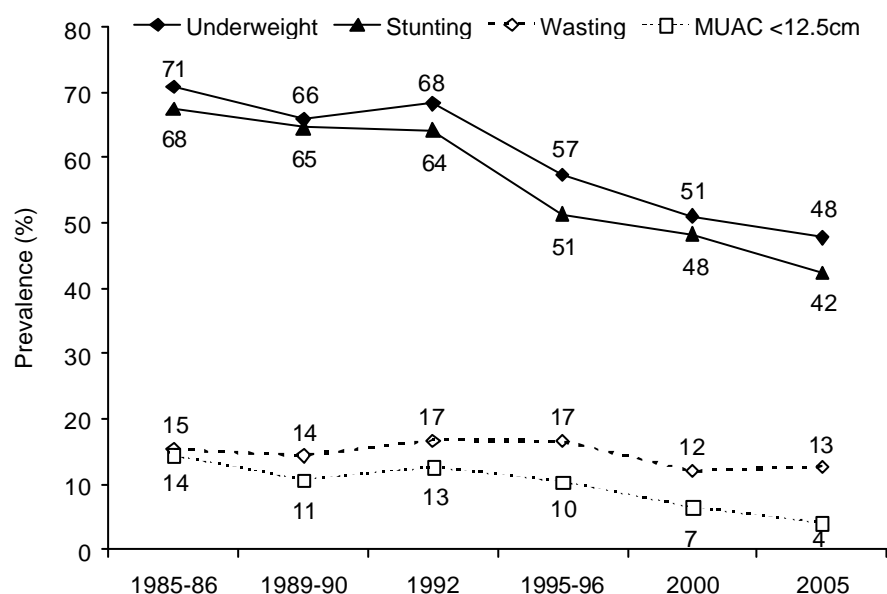
**Table 20: Prevalence of underweight, stunting and wasting in children aged <5 years in South Asian countries (NCHS 1977 GRS) , CMNS 2005**

Country	Underweight	Stunting	Wasting
Afghanistan	39	54	7
<b>Bangladesh</b>	<b>45</b>	<b>40</b>	<b>13</b>
Bhutan	19	40	3
India	47	46	16
Maldives	30	25	13
Nepal	48	51	10
Pakistan	38	37	13
Sri Lanka	29	14	14

**Table 21: Prevalence of malnutrition in children aged 6-59 months, 1985 to 2005 (NCHS 1977) , CMNS 2005**

Indicator		Year of the CNS/CMNS					
		1985	1989-90	1992	1995	2000	2005
Underweight (WAZ <sub>NCHS</sub> <-2)	Rural	72.0	66.7	69.8	59.3	52.6	50.1
	Urban	62.3	62.7	57.2	46.3	41.8	38.5
	National	70.9	65.8	68.3	57.4	51.0	47.8
Stunting (HAZ <sub>NCHS</sub> <-2)	Rural	68.9	66.7	65.8	52.8	50.2	44.9
	Urban	57.1	58.3	52.8	42.9	37.5	32.5
	National	67.5	64.6	64.2	51.4	48.3	42.4
Wasting (WHZ <sub>NCHS</sub> <-2)	Rural	15.4	14.7	16.9	17.2	12.2	13.1
	Urban	14.0	14.0	15.1	13.3	10.9	10.8
	National	15.3	14.4	16.7	16.6	12.0	12.7
MUAC <12.5cm <sup>a</sup>	Rural	14.9	11.0	13.2	11.0	7.0	4.9
	Urban	9.9	8.5	8.4	6.6	3.6	2.6
	National	14.4	10.7	12.6	10.4	6.5	4.1

**Figure 14: Trends in undernutrition in children aged 6-59 months, 1985 to 2005 (NCHS 1977) , CMNS 2005**



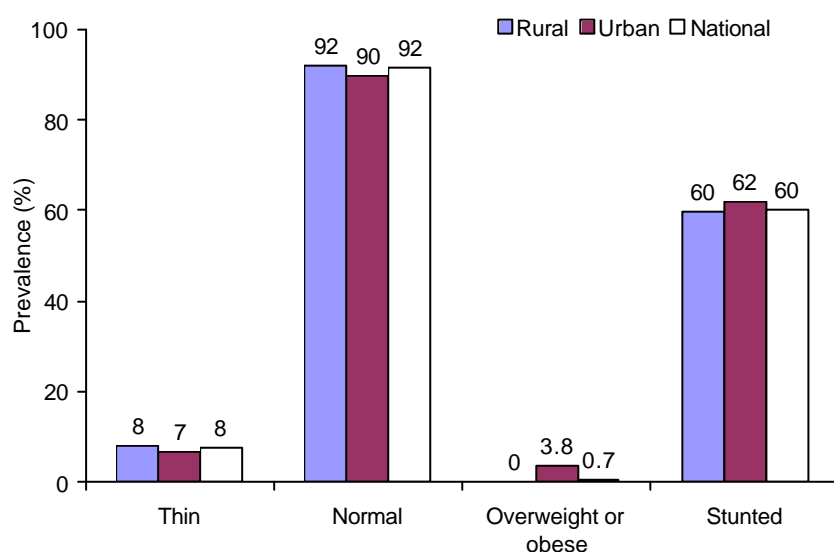
**Table 22: Mean age, weight, height MUAC and BMI of non-pregnant mothers by area of residence, CMNS 2005**

	Rural		Urban		Total	
	Mean	SD	Mean	SD	Mean	SD
Age (years)	28.2	6.2	27.8	6.0	28.1	6.2
Weight (kg)	44.5	7.0	48.8	9.5	45.4	7.8
Height (cm)	149.5	6.4	149.9	7.8	149.6	6.7
MUAC (cm)	23.8	2.5	25.3	3.3	24.1	2.8
BMI	19.9	2.8	21.7	3.7	20.2	3.1

**Table 23: Nutritional status of non-pregnant adolescent mothers by area of residence, CMNS 2005**

Nutritional status		Rural (%)	Urban (%)	Total (%)
Thin	<5 <sup>th</sup> percentile BMI-for-age	7.9	6.5	7.6
Normal	5 <sup>th</sup> -84 <sup>th</sup> percentile BMI-for-age	92.1	89.7	91.7
Overweight/obese	≥ 85 <sup>th</sup> percentile BMI-for-age	0	3.8	0.7
Stunting	HAZ<-2.00	59.9	61.8	60.2

**Figure 15: Nutritional status of adolescent non-pregnant mothers, CMNS 2005**



**Table 24: Nutritional status of non-pregnant adult mothers by area of residence (international BMI criteria) , CMNS 2005**

BMI categories		kg/m <sup>2</sup>	Rural (%)	Urban (%)	National (%)
Chronic energy deficiency	Grade III	<16.0	4.1	2.0	3.7
	Grade II	16.0 to 16.9	8.1	4.6	7.4
	Grade I	17.0 to 18.4	23.0	14.4	21.2
	Total	<18.5	35.2	21.0	32.2
Normal		18.5 to 24.9	58.9	60.2	59.2
Overweight and obese	Grade I	25.0 to 29.9	5.3	15.8	7.5
	Grade II	30.0 to 39.9	0.6	3.0	1.1
	Grade III	≥40	0	0	0
	Total	≥25.0	5.9	18.8	8.6

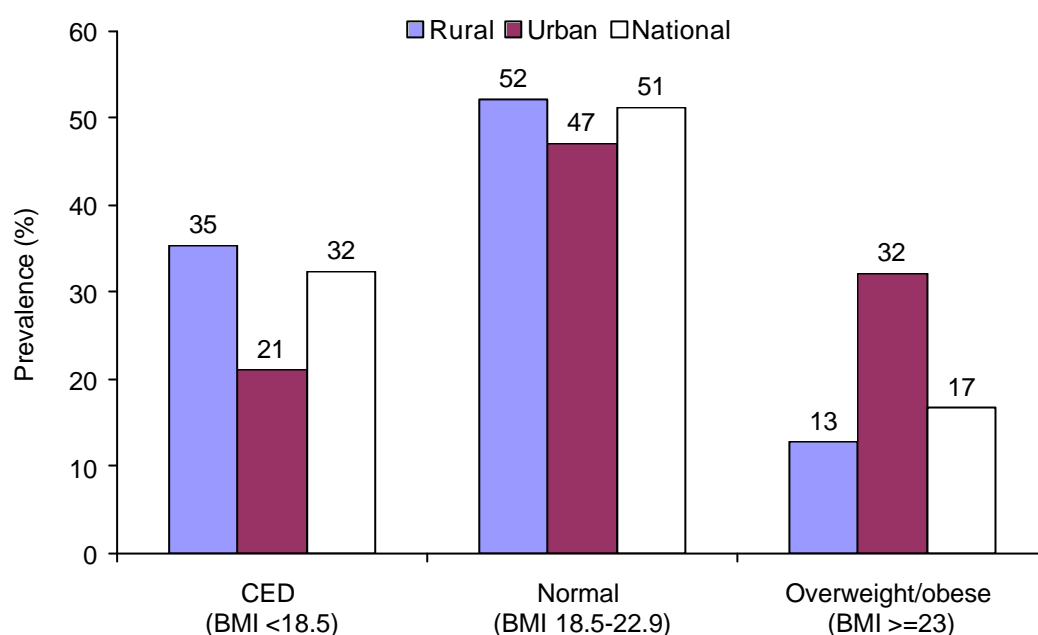
**Table 25: Nutritional status of non-pregnant adult mothers by area of residence (Asian population BMI criteria) , CMNS 2005**

BMI categories		kg/m <sup>2</sup>	Rural (%)	Urban (%)	National (%)
Chronic energy deficiency	Grade III	<16.0	4.1	2.0	3.7
	Grade II	16.0 to 16.9	8.1	4.6	7.4
	Grade I	17.0 to 18.4	23.0	14.4	21.2
	Total	<18.5	35.2	21.0	32.2
Normal		18.5 to 22.9	52.1	47.0	51.1
Overweight and obese	Increased risk	23.0 to 27.4	10.6	23.5	13.3
	High risk	≥27.5	2.1	8.5	3.4
	Total	≥23.0	12.7	32.0	16.7

**Table 26: Prevalence of malnutrition in non-pregnant adult mothers by age, area of residence and season, CMNS 2005**

Characteristic	CED (<18.5 kg/m <sup>2</sup> ) %	Normal (18.5-22.9 kg/m <sup>2</sup> ) %	Overweight/obese (≥23 kg/m <sup>2</sup> ) %
<b>Age group of mother (years)</b>			
19-24	34.4	53.7	11.9
25-29	27.7	53.8	18.5
30-34	33.8	47.5	18.8
35+	34.7	47.2	18.1
<b>Area of residence</b>			
Rural	35.1	52.2	12.7
Urban	21.0	47.0	32.0
<b>Division</b>			
Barisal	31.7	55.0	13.3
Chittagong	30.8	49.5	19.7
Dhaka	29.8	52.3	17.9
Khulna	27.7	50.1	22.2
Rajshahi	37.3	51.1	11.6
Sylhet	37.0	47.6	15.4
<b>Season</b>			
Winter	30.5	51.4	18.1
Summer	33.0	51.5	15.5
Rainy	31.8	51.8	16.4
Autumn	33.7	49.4	16.9
<b>National prevalence</b>	<b>32.2</b>	<b>51.1</b>	<b>16.7</b>

**Figure 16: Nutritional status of non-pregnant adult women by area of residence, CMNS 2005**



**Table 27: Prevalence of malnutrition in non-pregnant adult mothers by division and area of residence, CMNS 2005**

		Barisal (%)	Chittagong (%)	Dhaka (%)	Khulna (%)	Rajshahi (%)	Sylhet (%)	National (%)
<b>CED</b> (<18.5 kg/m <sup>2</sup> )	Rural	32.3	34.2	34.6	28.6	38.9	39.1	35.1
	Urban	27.6	19.0	18.8	23.1	26.6	19.5	21.0
	Total	31.7	30.8	29.8	27.7	37.3	37.0	32.2
<b>Normal</b> (18.5-22.9 kg/m <sup>2</sup> )	Rural	56.7	50.2	54.7	51.0	51.2	48.7	52.2
	Urban	44.7	47.1	46.9	45.5	50.5	39.0	47.0
	Total	55.0	49.5	52.3	50.1	51.1	47.6	51.1
<b>Overweight/obesity</b> (≥23 kg/m <sup>2</sup> )	Rural	11.0	15.6	10.8	20.3	9.9	12.2	12.7
	Urban	27.6	33.9	34.3	31.3	23.0	41.5	32.0
	Total	13.3	19.7	17.9	22.2	11.6	15.4	16.7

**Table 28: Prevalence of malnutrition in non-pregnant adult mothers by maternal, CMNS 2005 characteristics**

	<b>CED</b> (<18.5 kg/m <sup>2</sup> ) %	<b>Normal</b> (18.5-22.9 kg/m <sup>2</sup> ) %	<b>Overweight/obese</b> (≥23 kg/m <sup>2</sup> ) %
<b>Mother's education status</b>			
Illiterate/never attended school	37.6	52.9	9.5
Passed class I-V	32.9	53.3	13.8
Passed class VI-IX	25.4	51.4	23.2
Passed SSC/HSC & above	17.9	36.3	45.8
<b>Mother's occupation</b>			
Housewife	32.5	51.1	16.3
Working	22.4	49.6	28.0
<b>National prevalence</b>	<b>32.2</b>	<b>51.1</b>	<b>16.7</b>

**Table 29: Other associations of nutritional status in non-pregnant adult mothers, CMNS 2005**

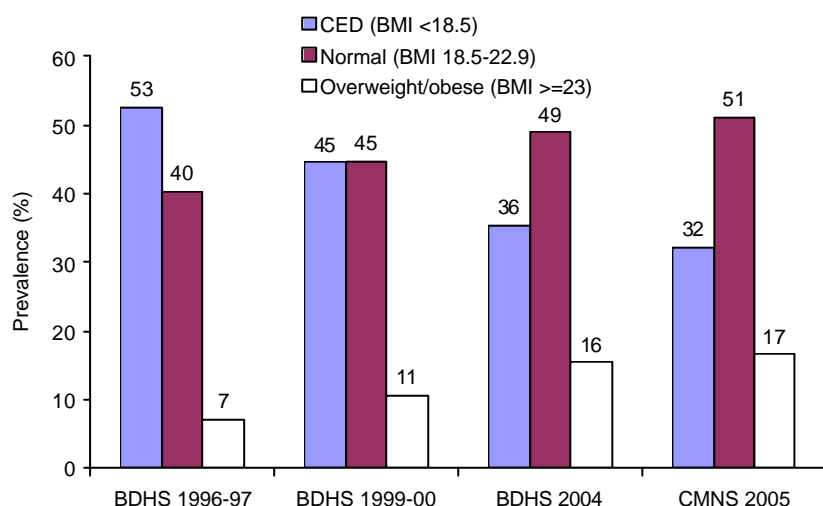
	<b>CED</b> ( $<18.5 \text{ kg/m}^2$ ) %	<b>Normal</b> ( $18.5\text{-}22.9 \text{ kg/m}^2$ ) %	<b>Overweight/obese</b> ( $\geq 23 \text{ kg/m}^2$ ) %
<b>HH wealth index quintiles</b>			
Poorest	44.0	51.0	5.0
Second	41.0	51.9	7.1
Middle	34.4	55.2	10.4
Fourth	30.2	50.8	19.1
Richest	14.7	45.8	39.5
<b>HH cultivated land (acre)</b>			
00.00	33.0	51.1	15.9
0.01 – 0.99	33.4	51.8	14.8
1.00 – 1.99	30.0	53.5	16.6
2.00 – 4.99	29.4	48.1	22.5
5.00+	27.8	43.1	29.1
<b>Annual HH income (Taka)</b>			
<35000	41.8	50.9	7.3
35000 – 49999	33.4	54.7	11.9
50000 – 64999	36.2	50.1	13.8
65000 – 79999	30.8	47.4	21.8
80000+	20.6	50.4	29.1
<b>Annual HH expenditure (Taka)</b>			
<35000	39.1	54.0	6.9
35000 – 49999	39.0	52.0	9.0
50000 – 64999	33.6	54.4	12.0
65000 – 79999	29.4	50.1	20.5
80000+	21.8	46.0	32.1
<b>Per capita kilocal consumption</b>			
<1,600	39.8	45.1	15.1
1,600-1,849	32.9	55.9	11.2
1,850-2,122	35.6	49.7	14.7
2,122+	28.3	51.1	20.6
<b>Homestead garden</b>			
Yes	34.2	52.2	13.6
No	30.5	50.1	19.4
<b>Taken loan to buy food</b>			
Yes	38.1	51.7	13.6
No	30.2	50.9	18.9
<b>Main source of drinking water</b>			
Tube well	33.0	51.5	15.5
Tap	13.0	42.0	45.1
Other	35.9	49.9	14.2
<b>Type of toilet facility</b>			
Flush/sanitary/water seal	20.2	45.0	34.8
Pit latrine	29.4	53.4	17.2
Fixed kutchra	39.4	52.5	8.1
Hanging latrine beside water/open space/no fixed space	42.4	50.8	6.7
<b>Affected by monsoon flood</b>			
Yes	34.4	51.8	13.8
No	30.4	50.5	19.2
<b>Sex of household head</b>			
Male	32.3	51.5	16.2

	<b>CED</b> ( $<18.5 \text{ kg/m}^2$ ) %	<b>Normal</b> ( $18.5-22.9 \text{ kg/m}^2$ ) %	<b>Overweight/obese</b> ( $\geq 23 \text{ kg/m}^2$ ) %
Female	29.4	42.0	28.5
<b>National prevalence</b>	<b>32.2</b>	<b>51.1</b>	<b>16.7</b>

**Table 30: Nutritional status of non-pregnant adult mothers, 1996-7 to 2005, CMNS 2005**

BMI categories		$\text{kg/m}^2$	BDHS 1996-97	BDHS 1999-00	BDHS 2004	CMNS 2005
Chronic energy deficiency	Grade III	$<16.0$	10.1	6.4	5.2	3.7
	Grade II	16.0 to 16.9	14.1	12.0	8.4	7.4
	Grade I	17.0 to 18.4	28.4	26.2	21.9	21.2
	Total	$<18.5$	52.6	44.6	35.5	32.2
Normal		18.5 to 22.9	40.3	44.7	49.0	51.1
Overweight and obese	Increased risk	23.0 to 27.4	5.8	8.6	12.4	13.4
	High risk	$\geq 27.5$	1.3	2.0	3.0	3.3
	Total	$\geq 23$	7.1	10.7	15.5	16.7

**Figure 17: Nutritional status of non-pregnant adult mothers, 1996-7 to 2005**



**Table 31: Mean weight, height and MUAC by sex and age, CMNS 2005**

Age in completed months	Weight (kg)			Height (cm)			Mid-upper arm circumference (mm)		
	Girls	Boys	Total	Girls	Boys	Total	Girls	Boys	Total
0	3.4	3.4	3.4	52.1	52.0	52.0			
1	4.1	4.3	4.2	54.1	54.9	54.6			
2	4.9	4.8	4.9	57.6	57.0	57.3			
3	5.1	5.6	5.3	58.9	61.0	59.9			
4	5.6	6.4	6.0	61.0	63.2	62.1			
5	6.3	6.6	6.5	63.7	64.5	64.2			
6	6.3	7.2	6.7	64.6	67.0	65.8			
7	6.7	7.4	7.0	65.8	67.5	66.5			
8	7.1	7.6	7.3	67.9	68.9	68.4			
9	6.9	7.7	7.4	67.6	69.9	68.8			

Age in completed months	Weight (kg)			Height (cm)			Mid-upper arm circumference (mm)		
	Girls	Boys	Total	Girls	Boys	Total	Girls	Boys	Total
10	7.4	8.0	7.6	68.8	71.6	69.6			
11	7.4	7.9	7.7	70.3	71.4	70.9			
12	7.7	8.1	7.9	70.6	72.7	71.7	134	138	136
13	7.8	8.5	8.2	71.5	73.5	72.5	133	139	136
14	7.8	8.5	8.2	71.5	74.1	72.9	133	137	135
15	8.0	8.8	8.4	73.4	74.4	73.9	135	139	137
16	8.2	9.0	8.7	74.4	75.4	75.0	133	139	137
17	8.5	9.0	8.8	75.2	76.9	76.1	134	139	137
18	8.7	9.5	9.2	76.0	76.2	76.1	131	140	136
19	8.2	9.2	8.8	74.6	79.0	77.2	132	138	136
20	8.9	9.8	9.2	76.7	79.0	77.5	138	141	139
21	8.9	9.4	9.1	77.0	78.3	77.7	135	139	137
22	9.6	9.1	9.3	78.8	79.1	79.0	141	137	139
23	9.6	9.9	9.8	79.1	79.4	79.3	135	142	138
24	9.8	9.7	9.7	80.9	80.0	80.5	139	141	140
25	9.6	10.3	10.0	81.1	82.0	81.6	138	141	140
26	9.9	10.8	10.3	81.2	83.7	82.4	138	143	140
27	10.1	10.3	10.2	81.7	82.6	82.3	141	142	142
28	10.0	11.6	10.7	81.8	86.8	84.0	139	146	142
29	10.0	10.8	10.4	81.9	84.1	83.1	139	145	142
30	10.3	11.0	10.6	83.0	85.8	84.2	141	142	142
31	10.5	11.0	10.7	83.3	86.3	84.4	142	145	143
32	10.4	11.2	10.8	84.7	85.5	85.0	141	142	141
33	10.7	11.0	10.8	85.7	86.2	85.9	141	141	141
34	10.9	11.6	11.3	85.9	86.8	86.4	143	144	143
35	10.9	11.4	11.2	86.4	86.7	86.6	144	146	145
36	11.2	11.8	11.6	86.5	88.9	87.8	143	145	144
37	11.7	11.8	11.7	88.2	88.3	88.3	146	143	144
38	11.8	11.6	11.7	89.9	87.3	88.4	147	146	146
39	11.3	12.1	11.6	88.6	89.4	88.9	142	147	144
40	11.8	12.0	11.9	89.8	91.1	90.4	143	145	144
41	11.6	12.2	11.9	89.8	91.4	90.6	144	144	144
42	12.0	12.5	12.3	90.8	91.1	91.0	145	146	145
43	12.3	12.2	12.3	91.3	92.4	92.0	144	143	143
44	12.2	12.2	12.2	92.4	91.9	92.2	146	141	144
45	12.5	13.1	12.9	93.4	93.2	93.3	146	146	146
46	12.1	13.5	12.8	91.5	95.4	93.6	146	149	148
47	12.4	13.6	12.9	92.3	94.7	93.3	147	150	148
48	13.2	13.5	13.3	93.8	95.5	94.7	149	148	148
49	12.8	13.4	13.1	93.3	95.5	94.6	146	147	147
50	13.4	13.2	13.3	95.3	95.5	95.4	150	146	148
51	12.8	13.6	13.3	95.6	97.2	96.6	143	148	146
52	13.2	13.7	13.4	96.7	97.6	97.1	146	147	146
53	13.6	13.9	13.7	97.7	98.0	97.8	148	147	147
54	13.3	14.1	13.8	95.8	98.7	97.6	150	149	149
55	13.3	14.4	13.8	96.9	99.0	97.9	146	149	148
56	13.3	13.6	13.5	97.9	98.0	97.9	149	147	148
57	14.1	14.3	14.2	99.6	100.2	100.0	150	145	148
58	13.8	14.4	14.1	99.8	99.6	99.7	147	150	149
59	14.3	14.7	14.5	101.0	102.5	101.8	148	150	149
Total	10.2	10.8	10.5	82.3	83.9	83.1	116	120	118