



Dissemination Workshop on

Nutrition Survey Results and Action Plan Development, Cox's Bazar District.

15th May 2024

Implemented by:
Action Against Hunger (ACF)

Supported by:
UNICEF

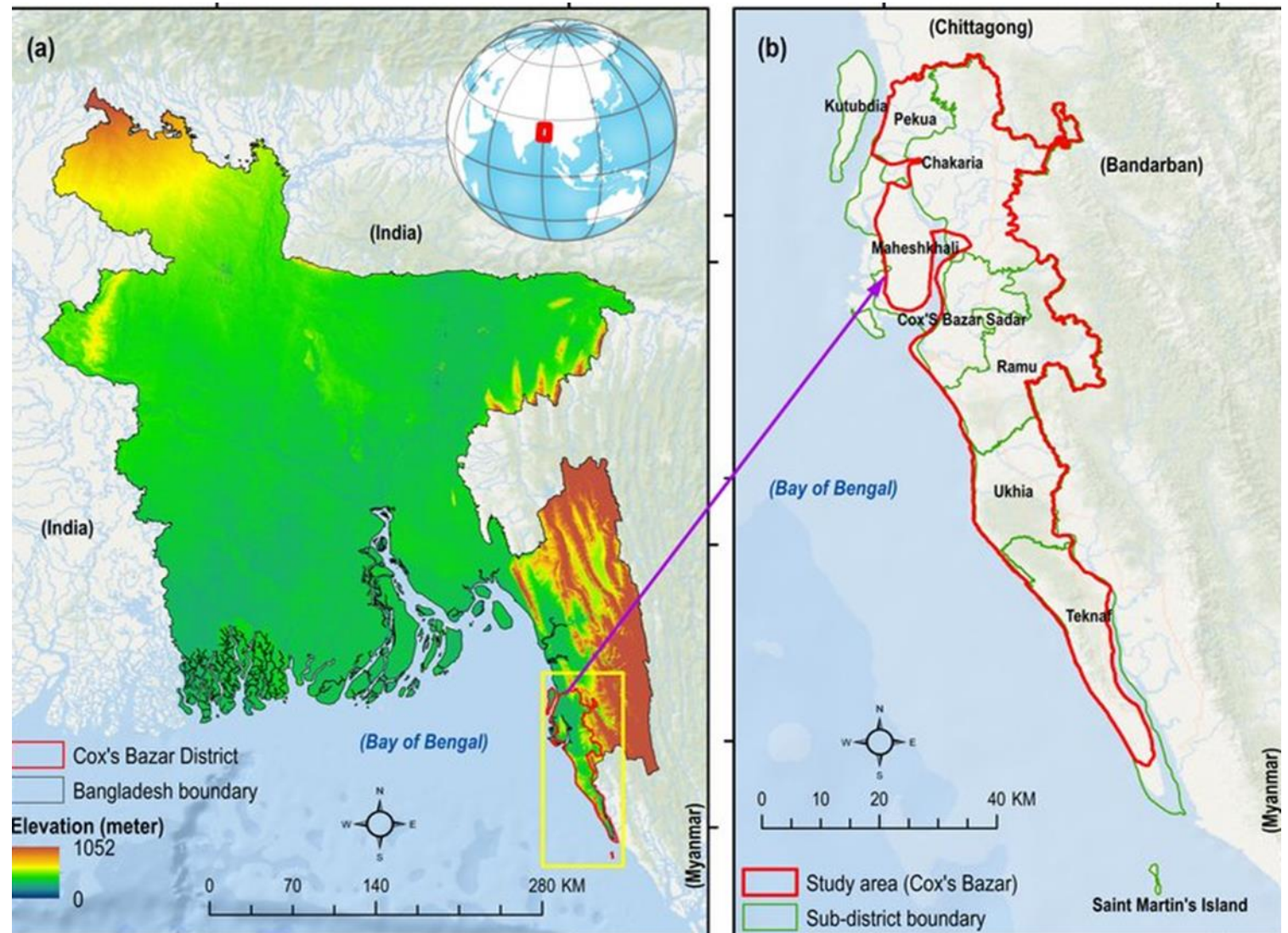


PRESENTED BY: DR MD ABUL HASAN

BACKGROUND: SURVEY LOCATION AND TIMELINE

Eight Upazila population representative SMART nutrition surveys were implemented in Cox's Bazar district

Timeline: 8th November to 29th December 2023



NUTRITION ACTOR'S PRESENCE IN COX'S BAZAR DISTRICT

UPAZILA	ACTOR PRESENCE
Ukhiya	UNICEF (IP: SHED, CARE), WFP (SHED), ACF (SHED)
Teknaf	UNICEF (IP: SHED, CARE), WFP (SHED), ACF (SHED)
Cox's Bazar Sadar	UNICEF (IP: SHED, CARE)
Ramu	UNICEF (IP: SHED, CARE)
Moheshkhali	UNICEF (IP SHED, CARE), WFP (SHED)
Kutubdia	UNICEF (IP SHED, CARE), WFP (SHED)
Chokoria	UNICEF (IP: SHED, CARE)
Pekua	UNICEF (IP SHED, CARE), WFP (SHED)

SURVEY JUSTIFICATION

- ☐ **Last SMART survey was conducted in 2021 only six upazilas,**
 - Prevalence of Wasting: Lowest in Teknaf 8.9 and Highest in Kutubdia 14.8
 - Prevalence of Stunting: Lowest in Ukhiya 20.7 and Highest in Moheshkhali 29.8
 - Prevalence Underweight: Lowest in 21.9 Teknaf and Highest in Moheshkhali 32.1
- ☐ **To monitor progress of six upazilas and to include remaining two Upazilas (Chakoria and Ramu)**
- ☐ **To facilitate data-driven decision-making and targeted interventions.**
- ☐ **To explore the nutritional landscape including WASH, food security, morbidity and mortality at the Upazila level**
- ☐ **To address complex nutritional challenges and promote evidence-based programming in the ever-evolving context.**

GENERAL OBJECTIVES

- ❑ To evaluate nutrition status of
 - Children under 6-59 months,
 - Adolescent girls (10-19 years)
 - Pregnant and lactating women (PLWs)
- ❑ To assess household food security status
 - Food Consumption Score(FCS)
 - Reduced Coping Strategy (rCSI)
 - Livelihood status
- ❑ WASH situation across the upazila
 - Status of household toilet facilities
 - Status of drinking water at Household level
 - Handwashing Practice during critical time

SPECIFIC OBJECTIVES

Nutritional Status:

- Wasting, stunting, underweight among children aged 6-59 months.
- Nutrition status of Pregnant and Lactating Women
- Nutrition status of adolescent girls

Morbidity:

- Diarrhea, Acute Respiratory Infection, Fever and measles among children 6-59 months

Coverage:

- Measles vaccination , vitamin A supplementation among children 6-59 months and deworming status 24-59 months

IYCF:

- Infant and Young Child Feeding Practices among children 0-23 months

IFA:

- Iron Folic Acid consumption among pregnant women and adolescent girls aged 10-19 years

Mortality :

- Retrospective crude mortality and under five mortality rates

FSL :

- Minimum dietary diversity for women of reproductive age (15-49 years).
- Household Food Consumption Score (FCS), reduced coping mechanism (rCSI) and Livelihood status

WASH :

- Household Water Sanitation and hygiene practices

ASSESSMENT METHODOLOGY

- ❑ **Population representative cross-sectional household survey** was conducted using SMART (Standardized Monitoring and Assessment of Relief and Transitions) survey methodology.
- ❑ **Sample size** was calculated using ENA software (Version January 11th, 2020)
- ❑ **Two Stages Cluster Sampling Technique was applied.**
 - Selection of clusters (villages) using probability proportion to size (PPS) sampling through ENA software
 - Selection of households using simple random sampling.
 - Households were selected from all **host community population**. An updated household list was developed by survey teams prior to the data collection
 - All eligible subject within selected households was included in the survey.

Summary of Final Targeted Sample Size

Name of Upazila	Estimated Population of the areas	Estimated Number of children Under 5 years	Sample size (Children 6-59 months)	Rounded HHs	Rounded Number of Clusters (assuming 15 HHs per cluster per day)
Ukhiya	284008	31809	502	990	66
Teknaf	356703	39951	452	735	49
Cox's Bazar Sadar	619379	69370	369	765	51
Ramu	358968	40204	488	1065	71
Moheshkhali	392092	43914	423	720	48
Kutubdia	148214	16600	440	705	47
Chokoria	625891	70100	488	1065	71
Pekua	226281	25343	423	660	44
Cox's Bazar District	3011536	337291	3585	6705	447

***15 households were assessed from each clusters**

SURVEY RESULTS



SAMPLE DESCRIPTION

- ❑ The survey achieved minimum number of clusters ($\geq 90\%$) and children ($\geq 80\%$) as recommended by SMART methodology to get representative results.
- ❑ Absent: 3.8%, Refusal: 0.1%, Not able to reach 0.2%*

SURVEY DATA QUALITY

Upazila	Criteria	SD WHZ	Flagged(%)	Sex-ratio	Age-ratio	Digit Pref. Weight
Ukhiya	Observed	0.94	0.8	p=0.478	p=0.817	5
Teknaf	Observed	0.94	0.2	p=0.524	p=0.355	4
Cox's Bazar Sadar	Observed	0.88	0.2	p=0.452	p=0.729	5
Ramu	Observed	0.86	0.0	P=0.146	P=0.006	5
Moheshkhali	Observed	0.88	0.5	P=0.476	P=0.135	4
Kutubdia	Observed	0.83	0.0	P=0.544	P=0.700	2
Chokoria	Observed	0.90	0.0	P=0.072	P=0.259	5
Pekua	Observed	0.85	0.5	P=0.355	P=0.973	5
	Desired	0.8-1.2	< 5%	(p>0.05)	(p>0.05)	< 13

Excellent	Good	Acceptable	Problematic

Percentage of children with exact birthday with document: 98%

SURVEY DATA QUALITY

Upazila	Criteria	Digit Pref. Height	Digit Pref. MUAC	Skewness	Kurtosis	Poisson Distribution	Overall Score*(%)
Ukhiya	Observed	6	4	0.30	0.08	p=0.065	1
Teknaf	Observed	7	6	-0.06	0.30	p=0.017	2
Cox's Bazar Sadar	Observed	6	4	0.17	0.35	P=0.127	6
Ramu	Observed	5	6	0.00	0.16	p=0.750	9
Moheshkhali	Observed	6	5	-0.23	-0.09	p=0.467	6
Kutubdia	Observed	4	2	0.18	-0.12	p=0.695	10
Chokoria	Observed	4	6	0.07	0.15	p=0.603	7
Pekua	Observed	5	4	-0.09	0.60	p=0.637	10
	Desired	< 13	< 13	< ± 0.6	< ± 0.6	(p>0.01)	< 15

Excellent	Good	Acceptable	Problematic

*Score per ENA for SMART methodology plausibility check

DEMOGRAPHY OF UNDER 5 ,PLW AND ADOLESCENT

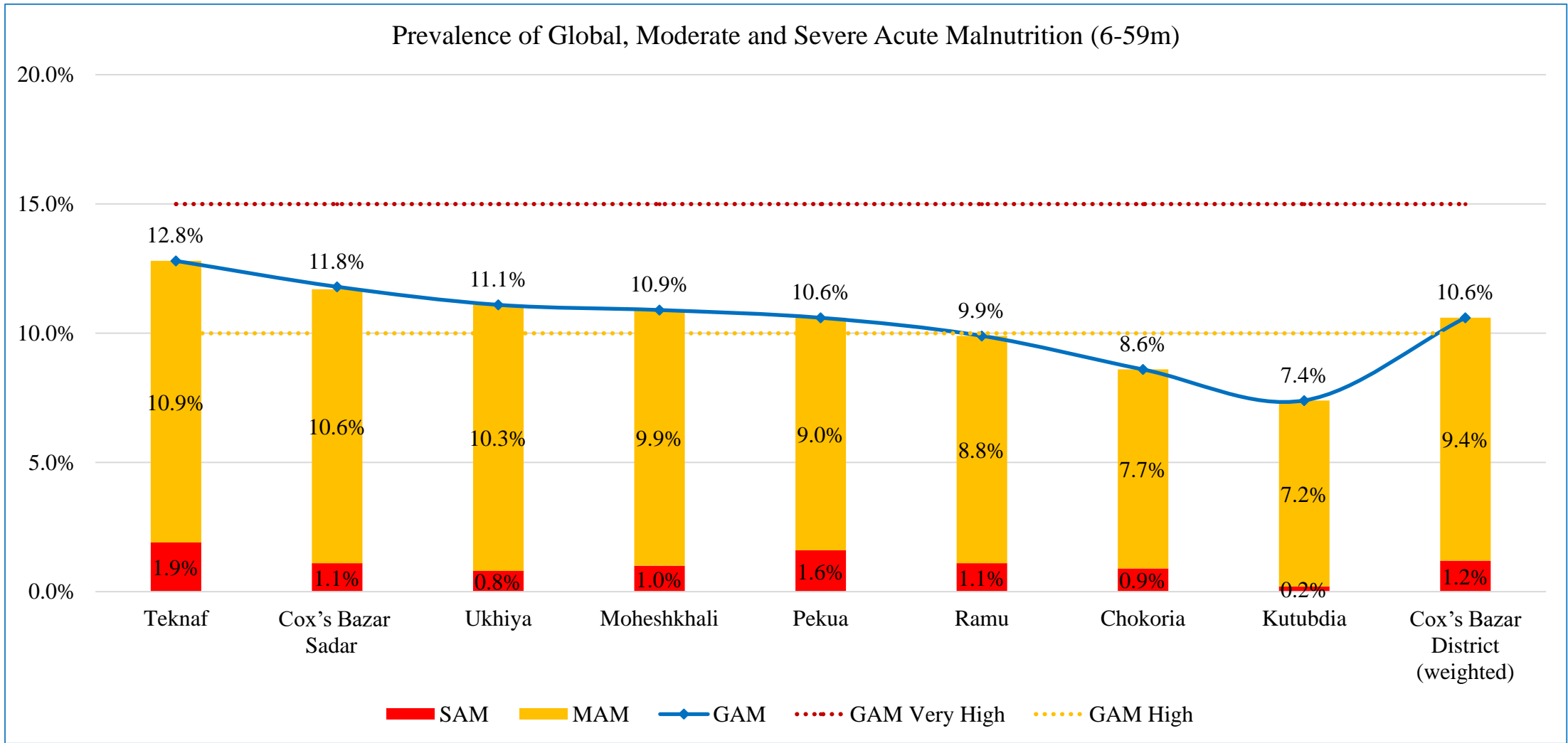
Upazila	% 6-59 months	% of Pregnant women	% of Lactating women with infant < 6 months	% of Lactating women with infant ≥ 6 months	% of Adolescent Girl (10-19)
Ukhiya	11.1	1.5	1.2	2.8	10.3
Teknaf	11.8	1.3	1.5	3.3	9.6
Cox's Bazar Sadar	12.5	1.6	1.4	3.3	8.9
Ramu	10.7	1.6	1.3	4.4	10.3
Moheshkhali	11.3	1.2	1.3	3.7	9.1
Kutubdia	13.2	1.8	1.3	4.4	9.5
Chokoria	10.5	1.4	1.4	3.8	8.7
Pekua	12.1	1.5	1.2	3.3	10.4
Cox's Bazar District (Weighted %)	13.3	1.5	1.4	3.6	9.4

RETROSPECTIVE CRUDE AND UNDER 5 DEATH RATES

Upazila	Mid-interval population	Crude death rate* Deaths/10,000/day	Mid-interval under five population	Under 5 death rate Deaths/10,000/day
Ukhiya	4771	0.11 (0.05-0.26)	577	0.17 (0.07-0.46)
Teknaf	3671	0.17 (0.07-0.43)	474	0.22 (0.03-1.66)
Cox's Bazar Sadar	3678	0.15 (0.06-0.38)	489	0.19 (0.01-2.56)
Ramu	5177	0.12 (0.04-0.34)	612	0.14 (0.01-1.89)
Moheshkhali	3398	0.07 (0.02-0.23)	419	0.20 (0.03-1.48)
Kutubdia	3469	0.02 (0.00-0.24)	505	0.00 (0.00-0.00)
Chokoria	5161	0.06 (0.02-0.15)	621	0.24 (0.06-0.96)
Pekua	3106	0.15 (0.06-0.37)	408	0.56 (0.18-1.73)
Cox's Bazar District (Weighted Value)		0.10 (0.07, 0.15)		0.22 (0.11, 0.41)

Indicator	Population	Global Emergency Threshold
Crude death rate (CDR)	Entire population	>1 death/10,000/day
Under 5 death rate (U5DR)	Children Under 5	>2 deaths/10,000/day

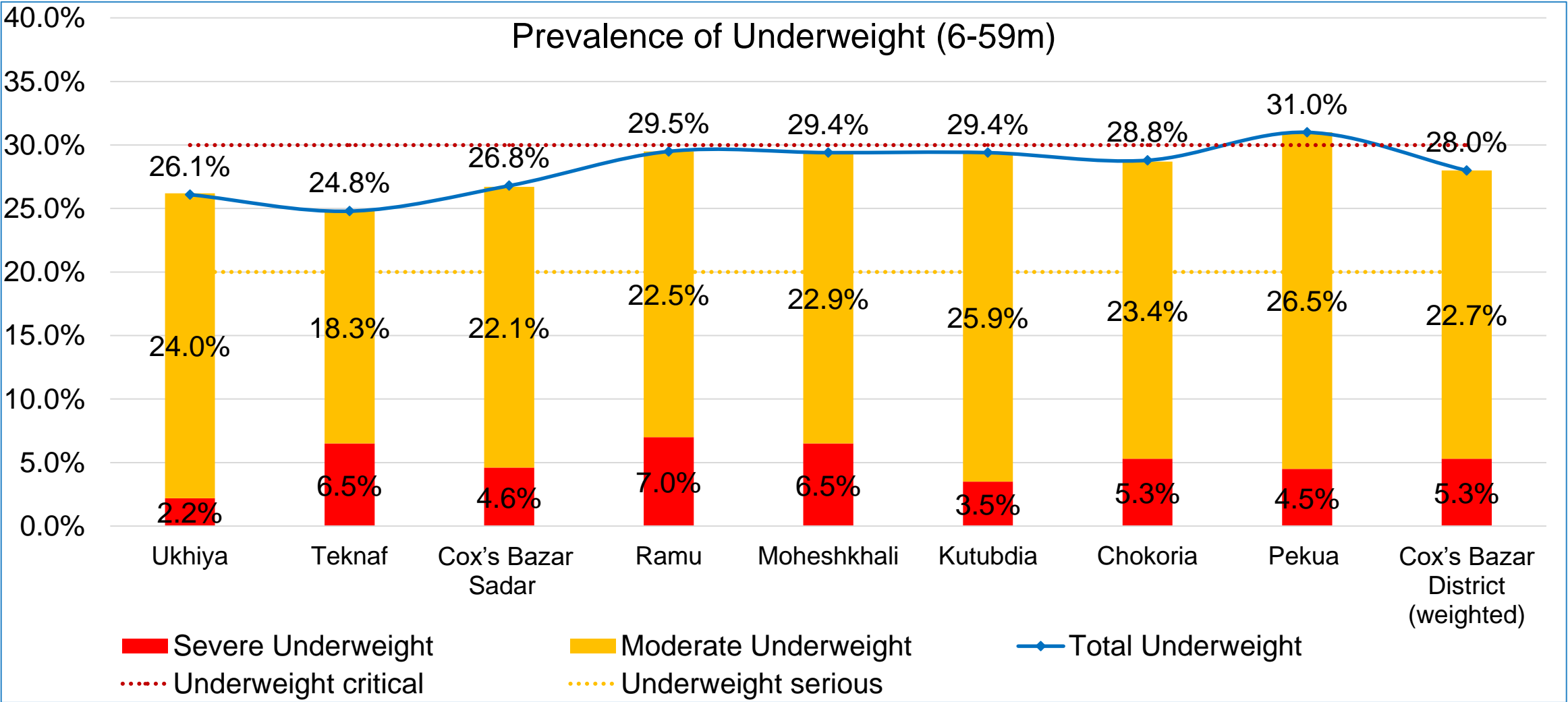
PREVALENCE OF ACUTE MALNUTRITION BASED ON WEIGHT-FOR-HEIGHT Z SCORES AND/OR OEDEMA



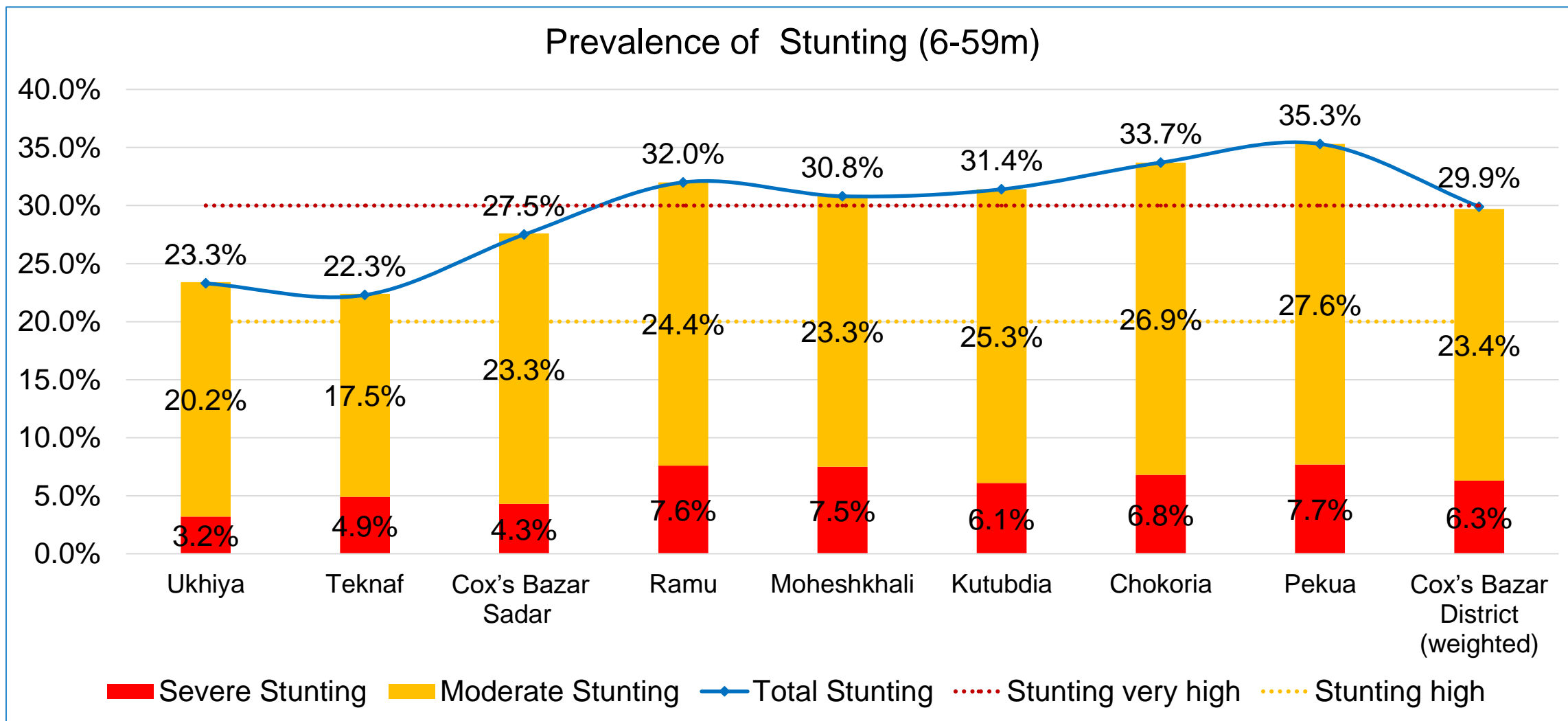
PREVALENCE OF ACUTE MALNUTRITION BASED ON COMBINED CRITERIA

Upazila	Acute Malnutrition		
	N	Global Acute Malnutrition (cGAM)	Severe Acute Malnutrition (cSAM)
		% (95% CI)	% (95% CI)
Teknaf	417	12.9 (9.6 - 17.2)	2.2 (1.0 - 4.5)
Cox's Bazar Sadar	452	11.7 (8.7 - 15.5)	1.1 (0.5 - 2.6)
Pekua	378	11.6 (8.7 - 15.5)	1.6 (0.7 - 3.4)
Moheshkhali	386	11.1 (8.2 - 14.9)	1.0 (0.4 - 2.7)
Ukhiya	508	11.0 (8.2 - 14.6)	1.0 (0.4 - 2.7)
Ramu	548	10.0 (8.1 - 13.2)	1.1 (0.5 - 2.3)
Chokoria	546	8.6 (6.6 - 11.2)	0.9 (0.4 - 2.1)
Kutubdia	459	8.1 (6.0 - 10.7)	0.2 (0.0 - 1.6)
Cox's Bazar District (Weighted)		10.8 (9.6-11.9)	1.2 (0.9-1.6)

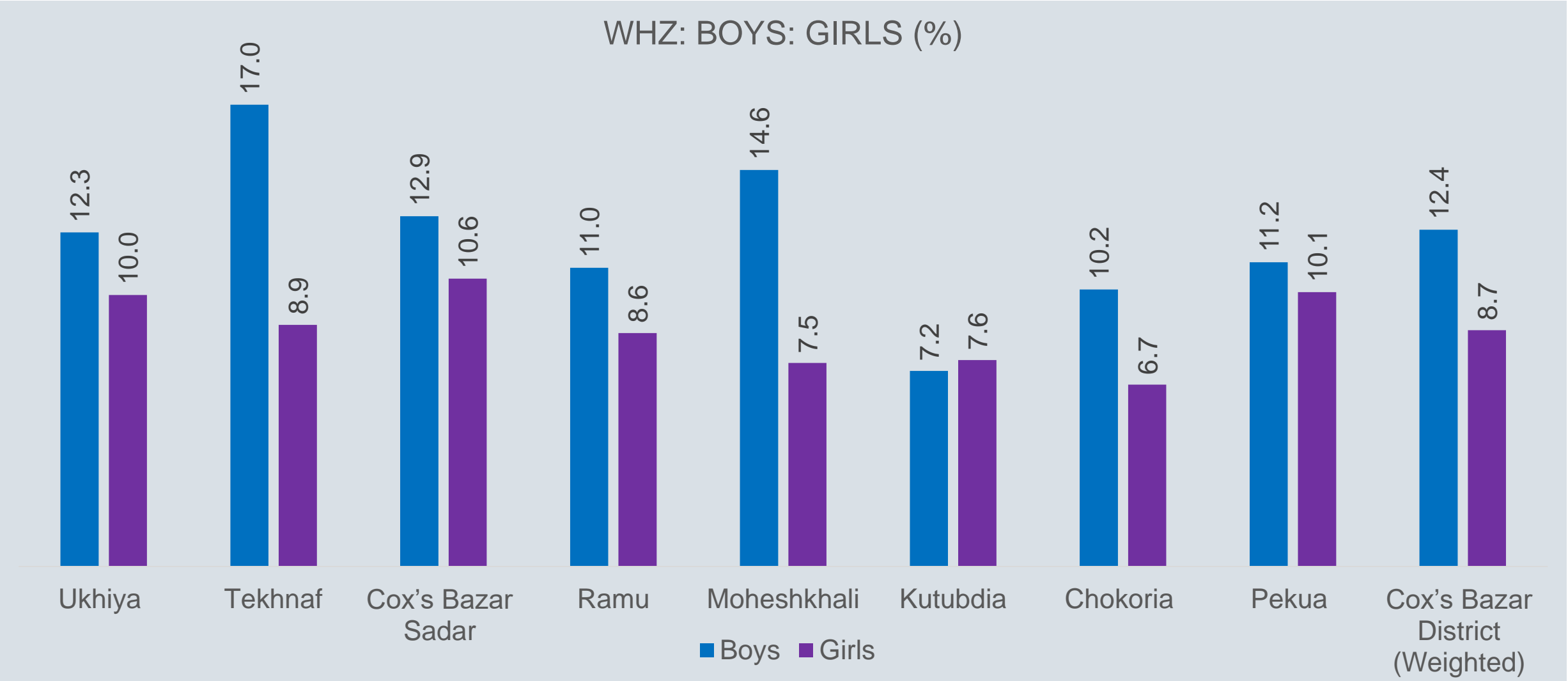
PREVALENCE OF UNDERWEIGHT BASED ON WEIGHT -FOR-AGE Z-SCORES



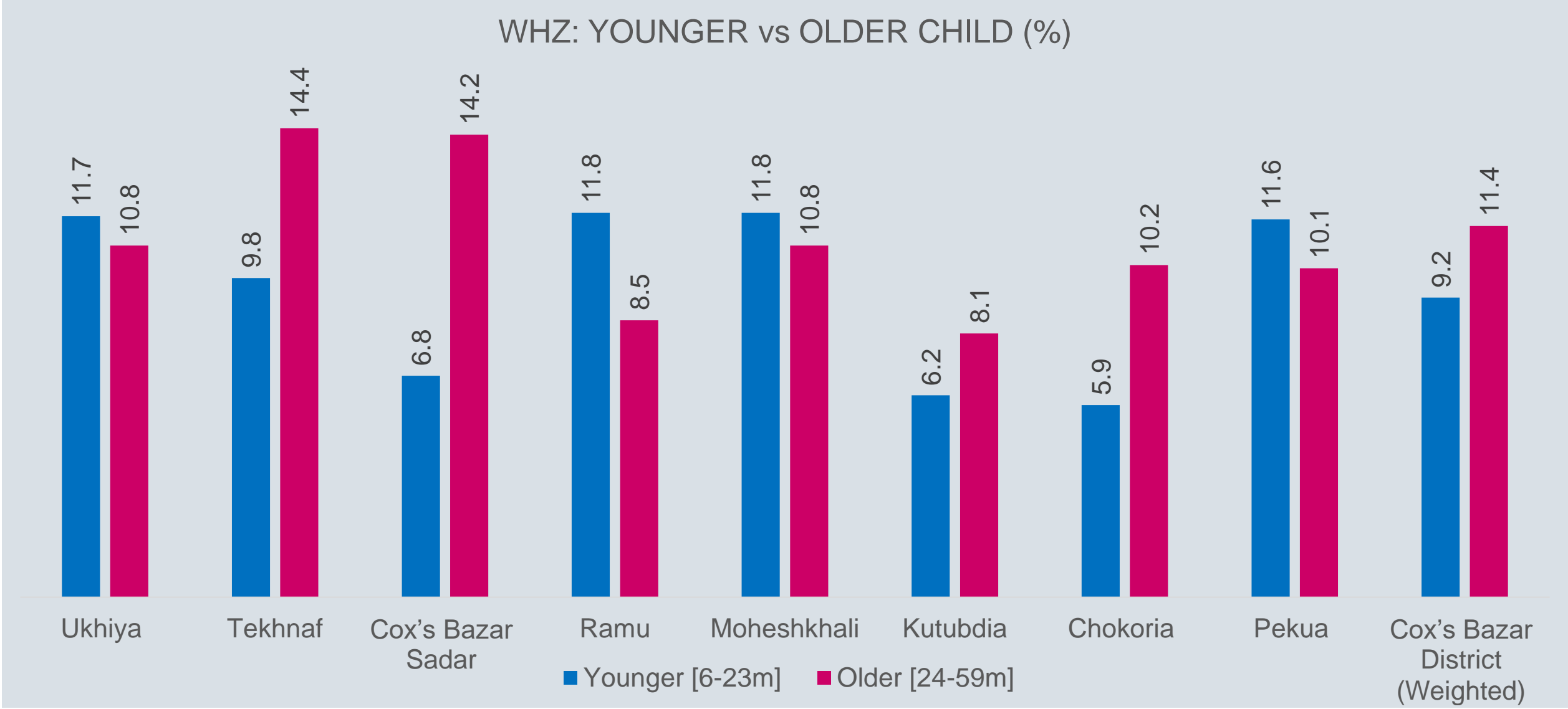
PREVALENCE OF STUNTING BASED ON HEIGHT-FOR-AGE Z-SCORES



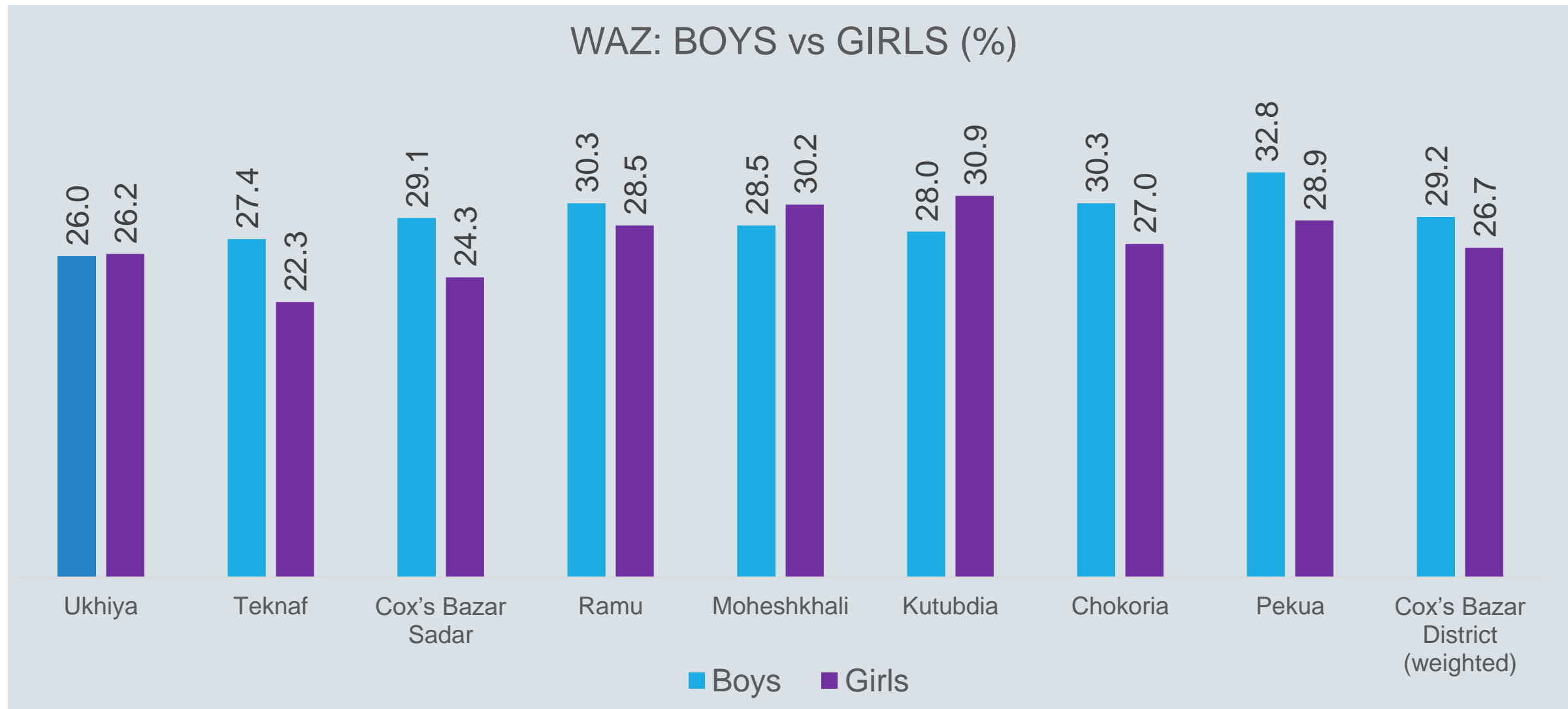
GAM PREVALENCE (BASED ON Z SCORE): BOYS VS GIRLS



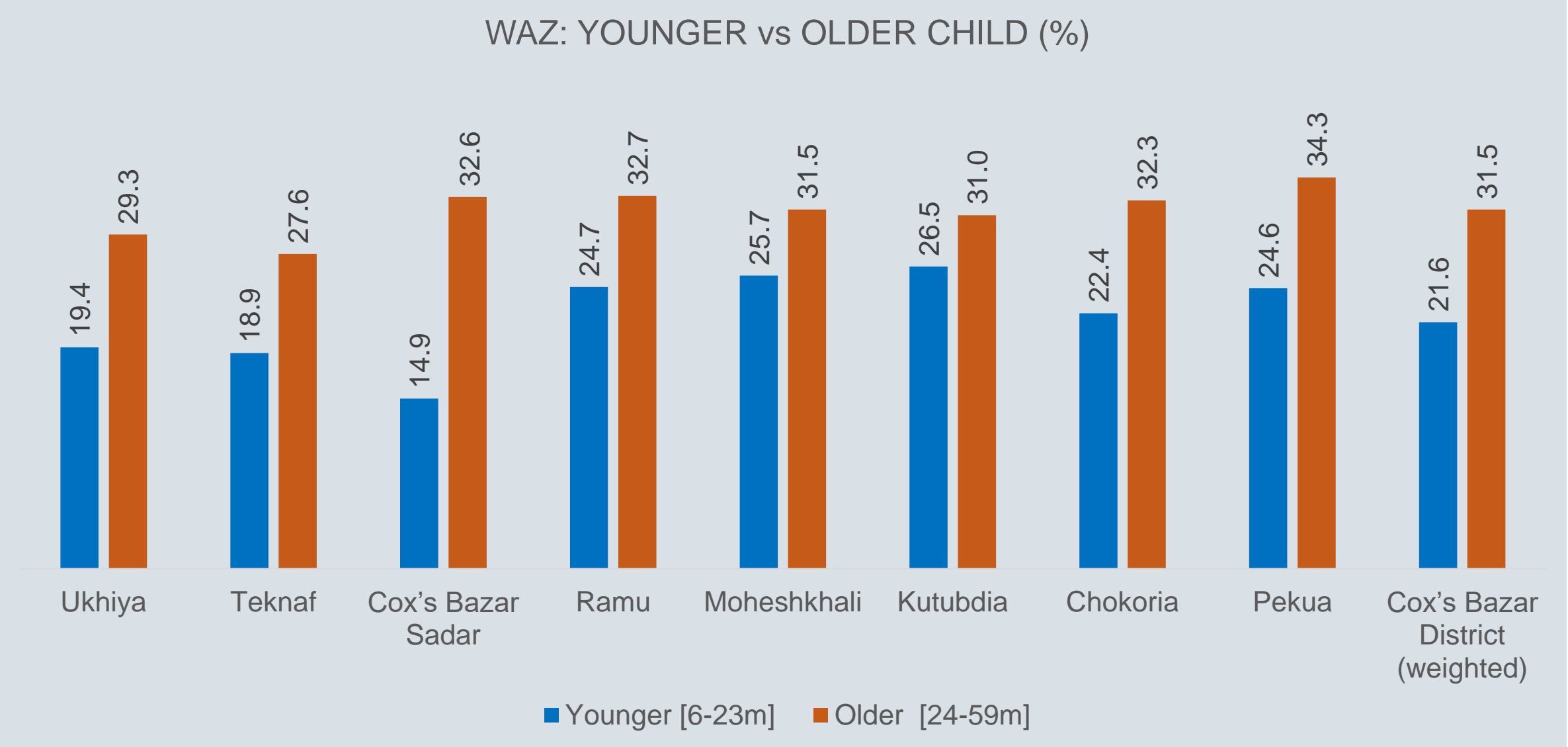
GAM PREVALENCE (BASED ON Z SCORE): YOUNGER VS OLDER CHILD



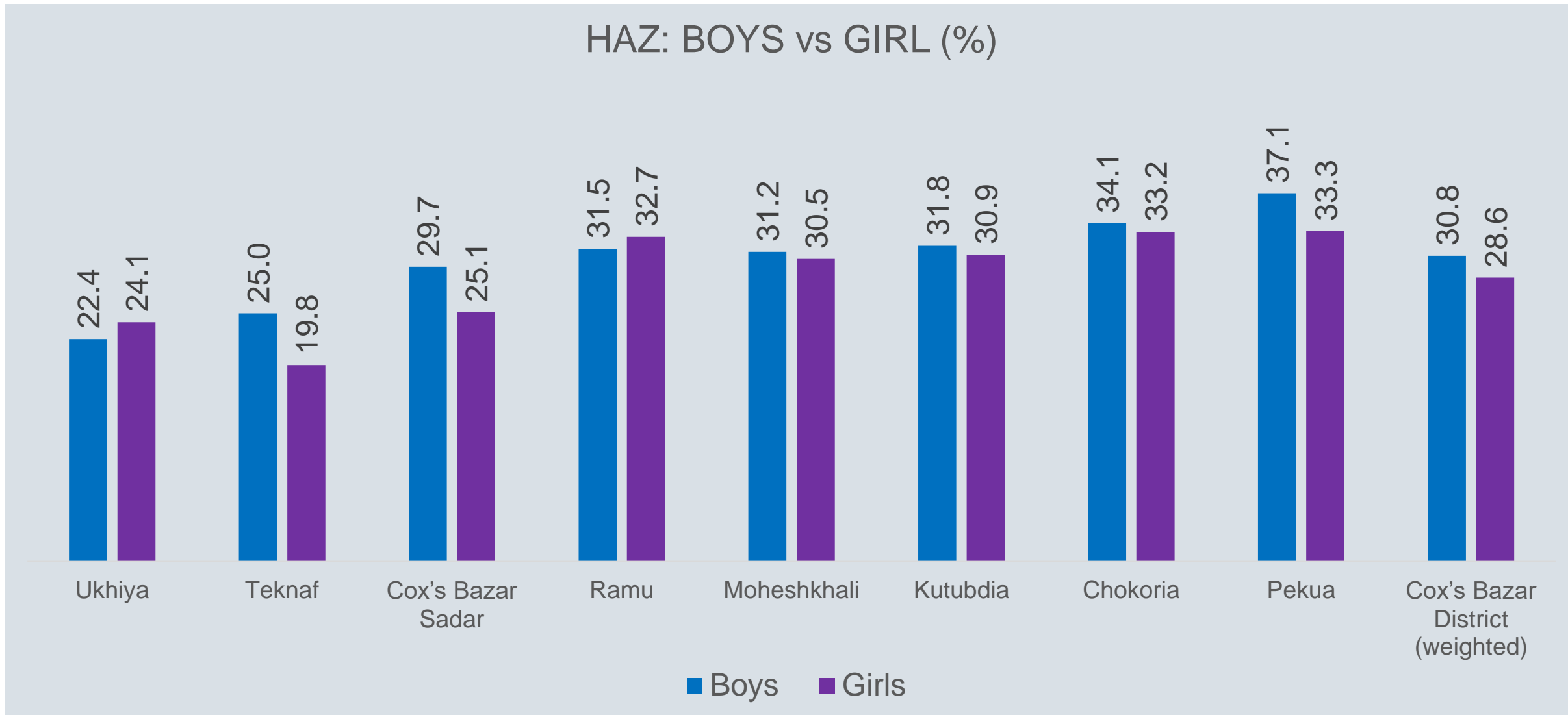
UNDERWEIGHT PREVALENCE : BOYS VS GIRLS



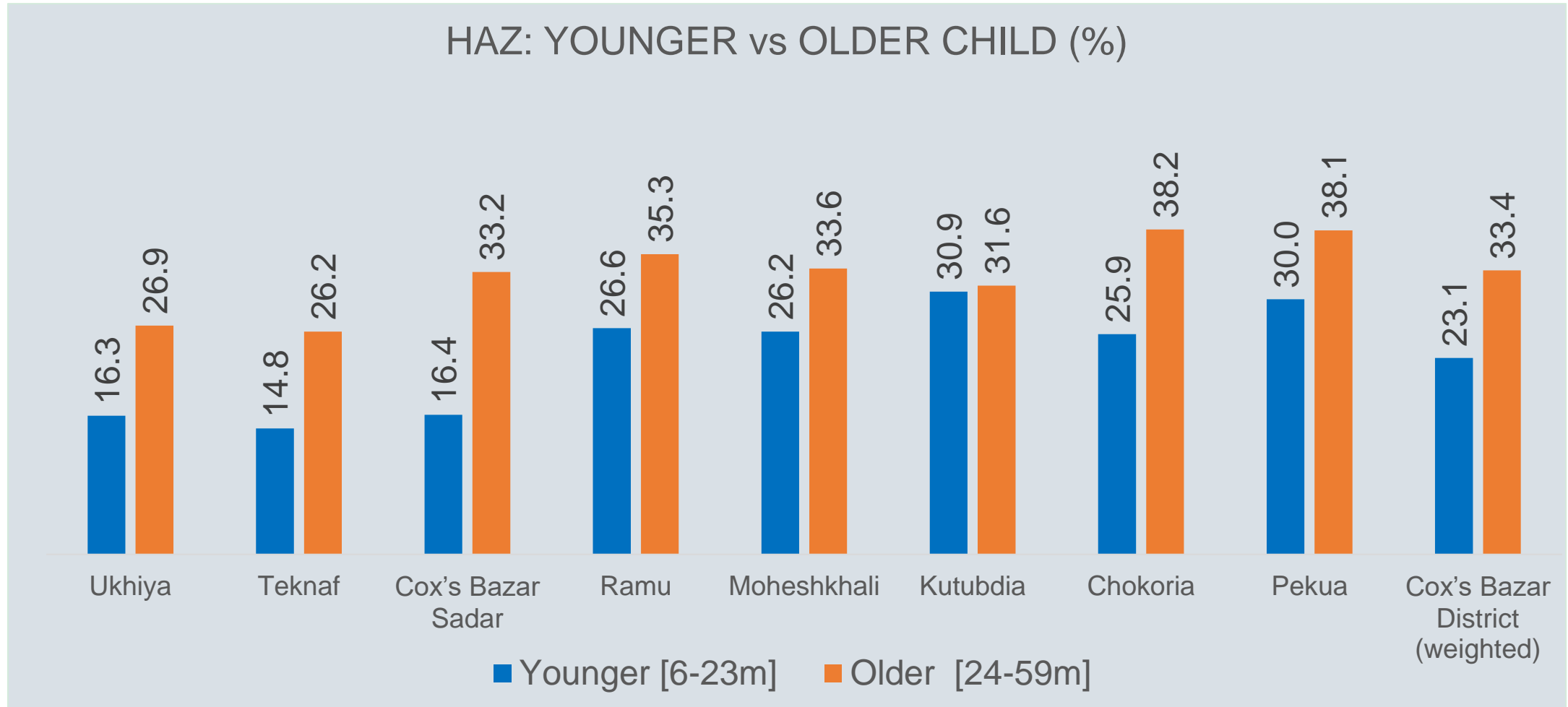
UNDERWEIGHT PREVALENCE : YOUNGER VS OLDER CHILD



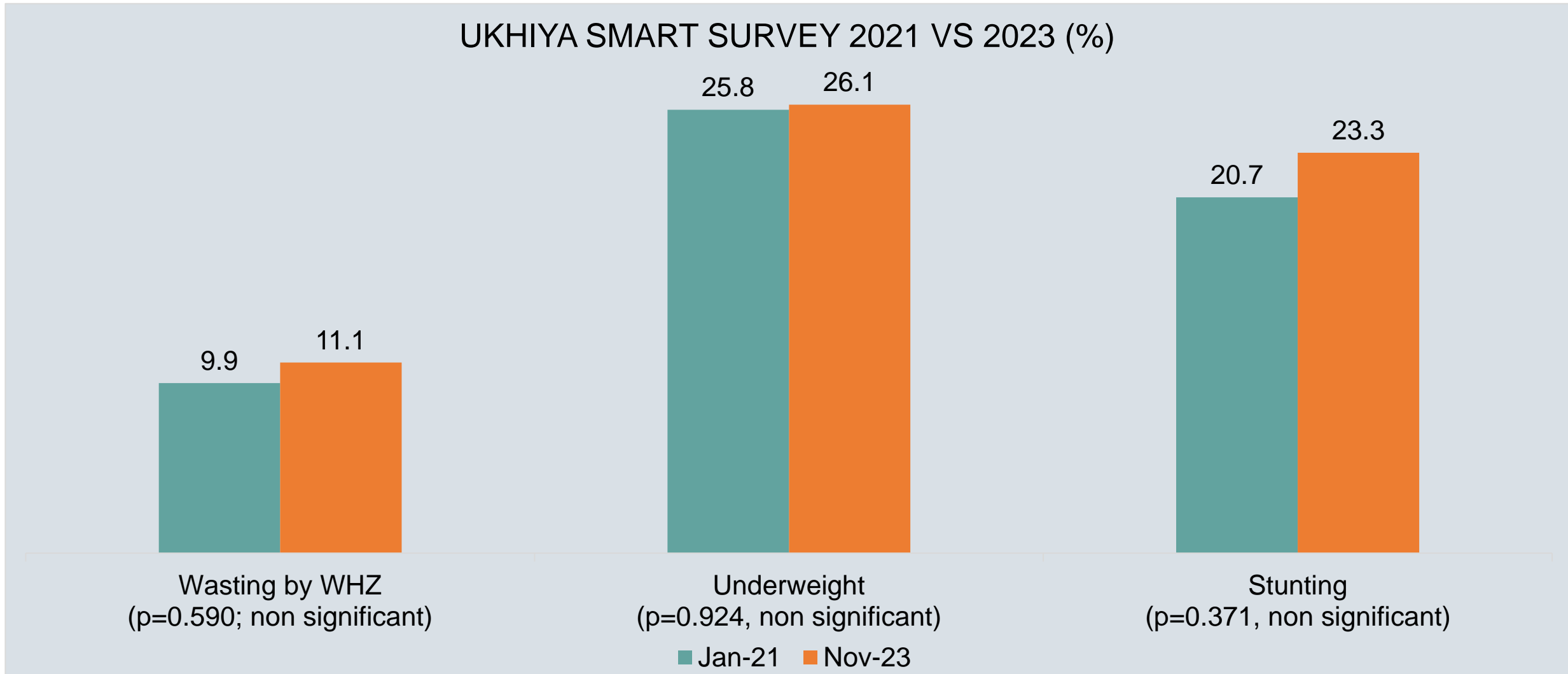
STUNTING PREVALENCE: BOYS VS GIRLS



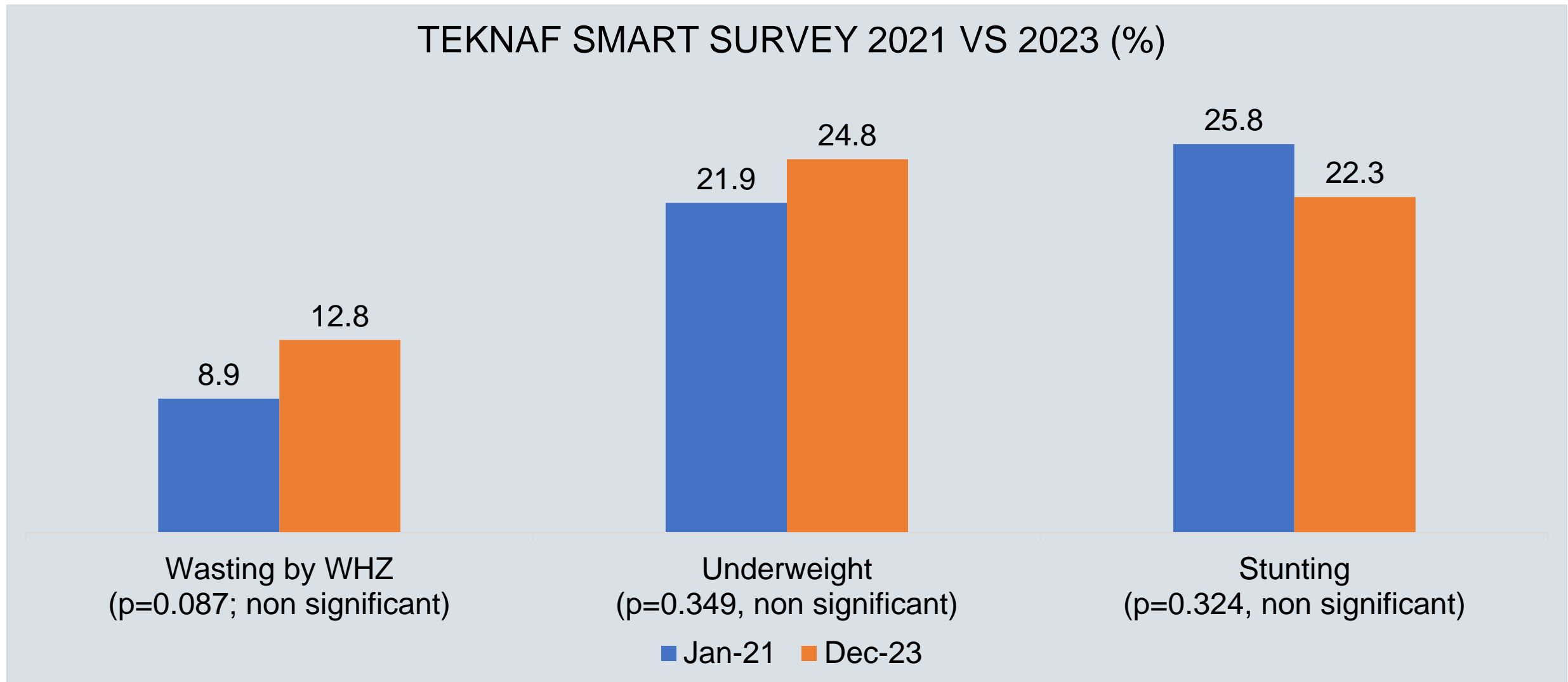
STUNTING PREVALENCE: BOYS VS GIRLS/YOUNGER VS OLDER CHILD



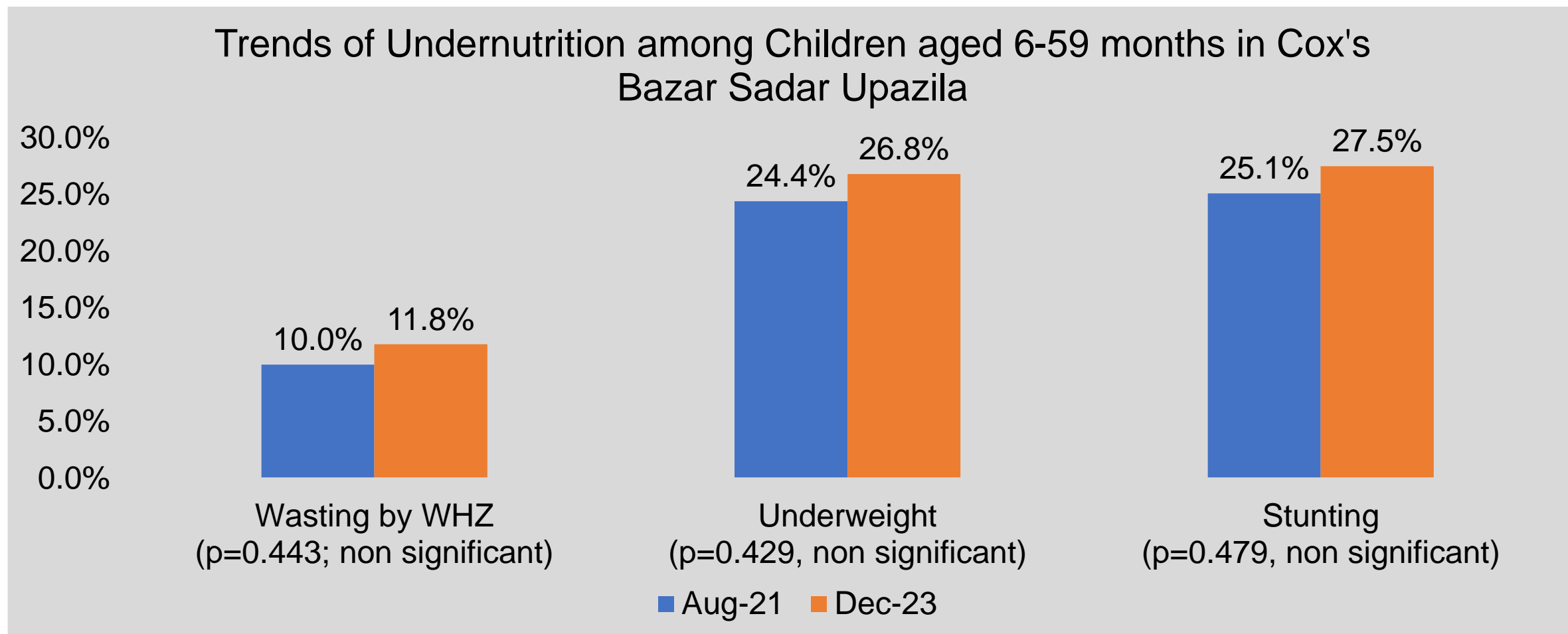
TREND OF UNDERNUTRITION AMONG CHILDREN 6-59M IN UKHIYA (2021 VS 2023)



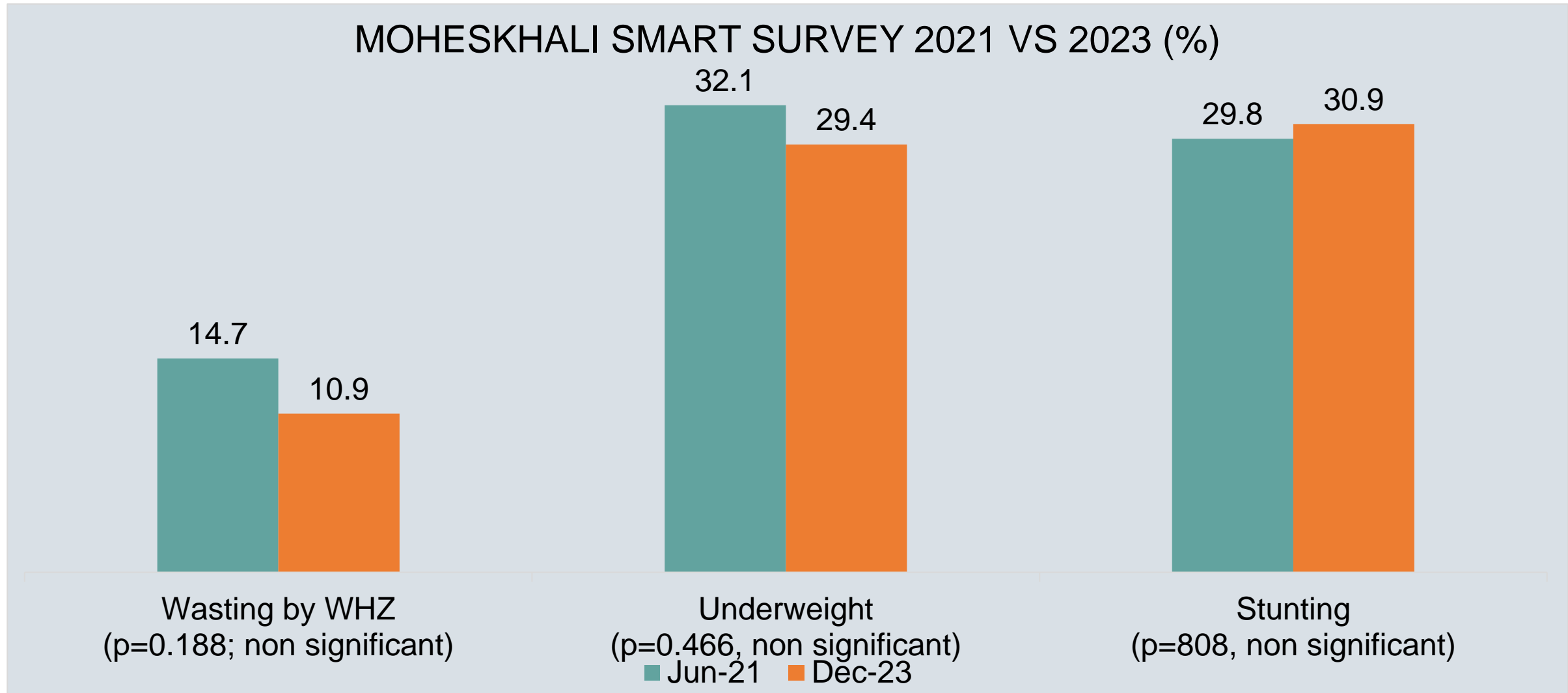
TREND OF UNDERNUTRITION AMONG CHILDREN 6-59M IN TEKNAF (2021 VS 2023)



TREND OF UNDERNUTRITION AMONG CHILDREN 6-59M IN COX'S BAZAR SADAR (2021 VS 2023)

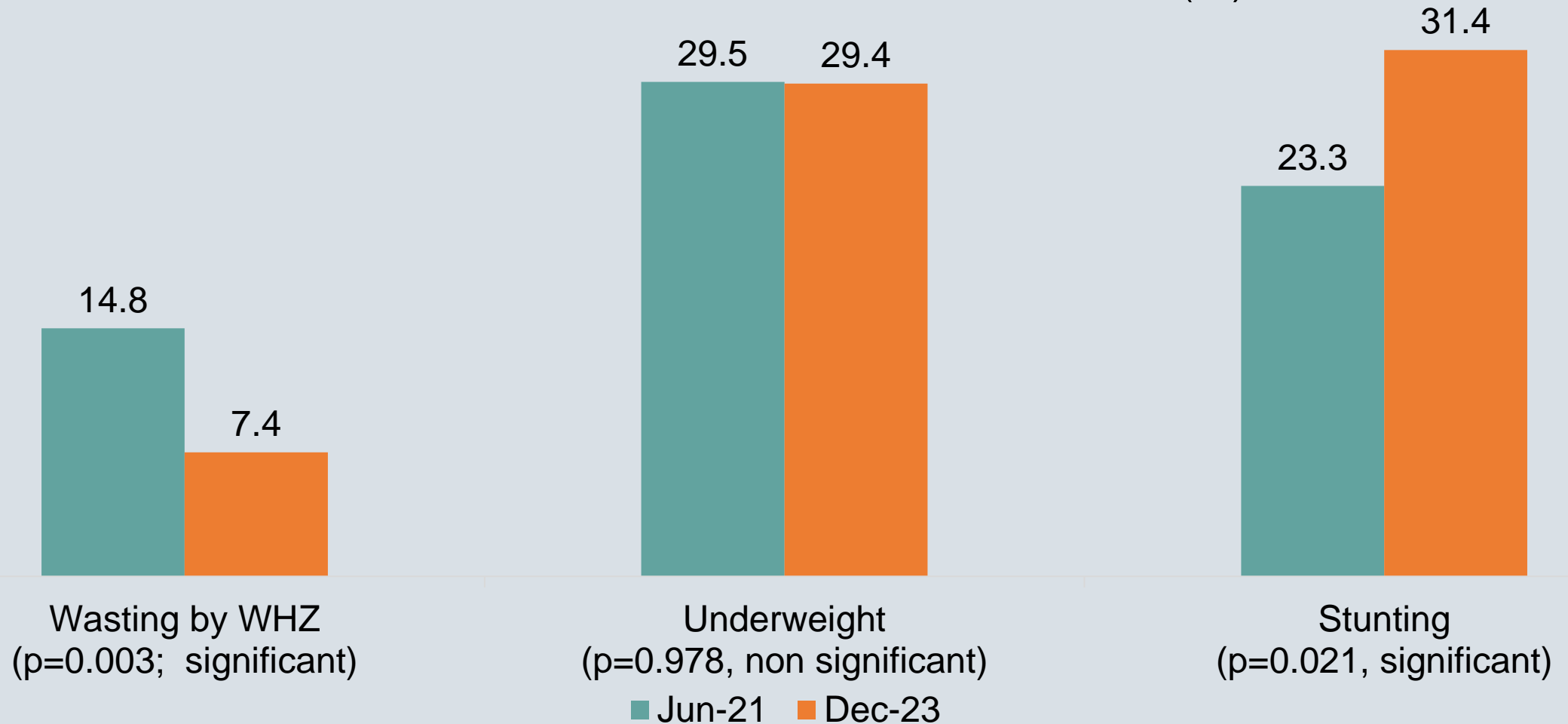


TREND OF UNDERNUTRITION AMONG CHILDREN 6-59M MOHESKHALI (2021 VS 2023)



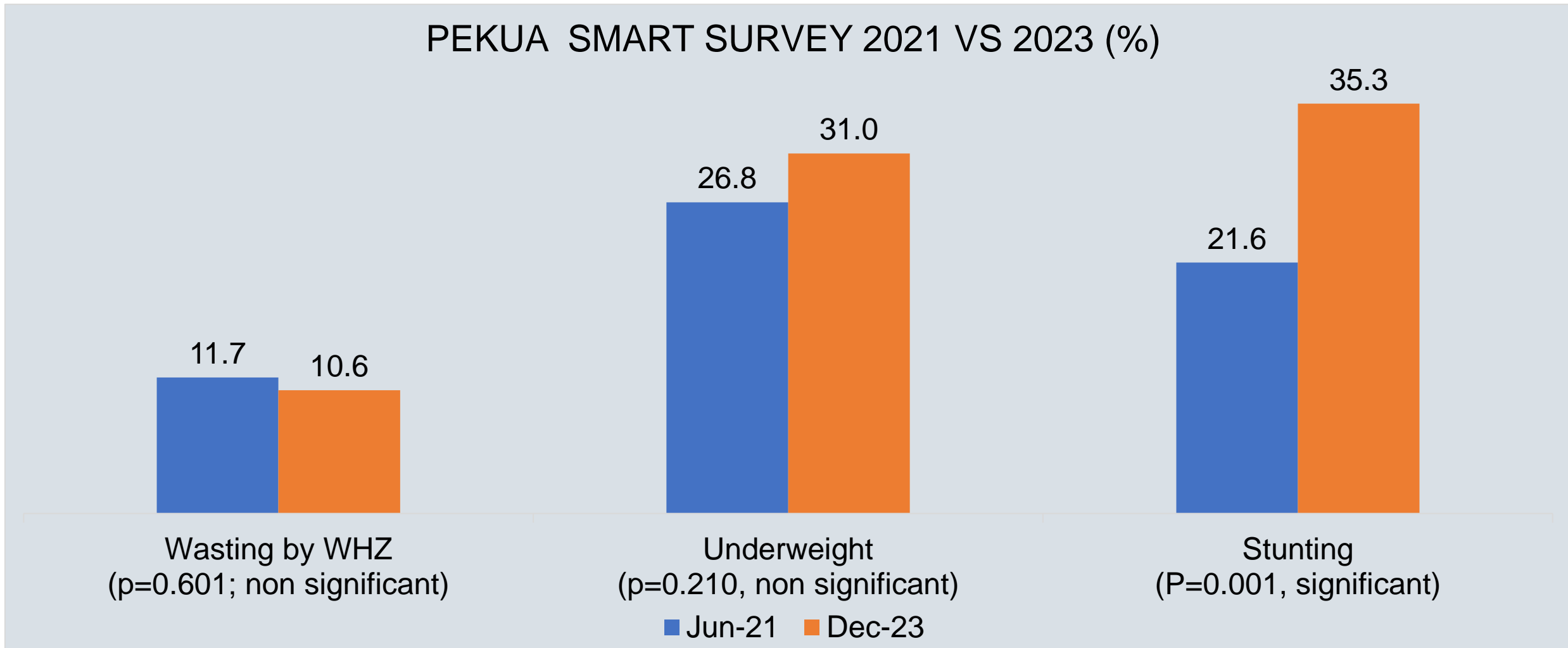
TREND OF UNDERNUTRITION AMONG CHILDREN 6-59M KUTUBDIA (2021 VS 2023)

KUTUBDIA SMART SURVEY 2021 VS 2023 (%)

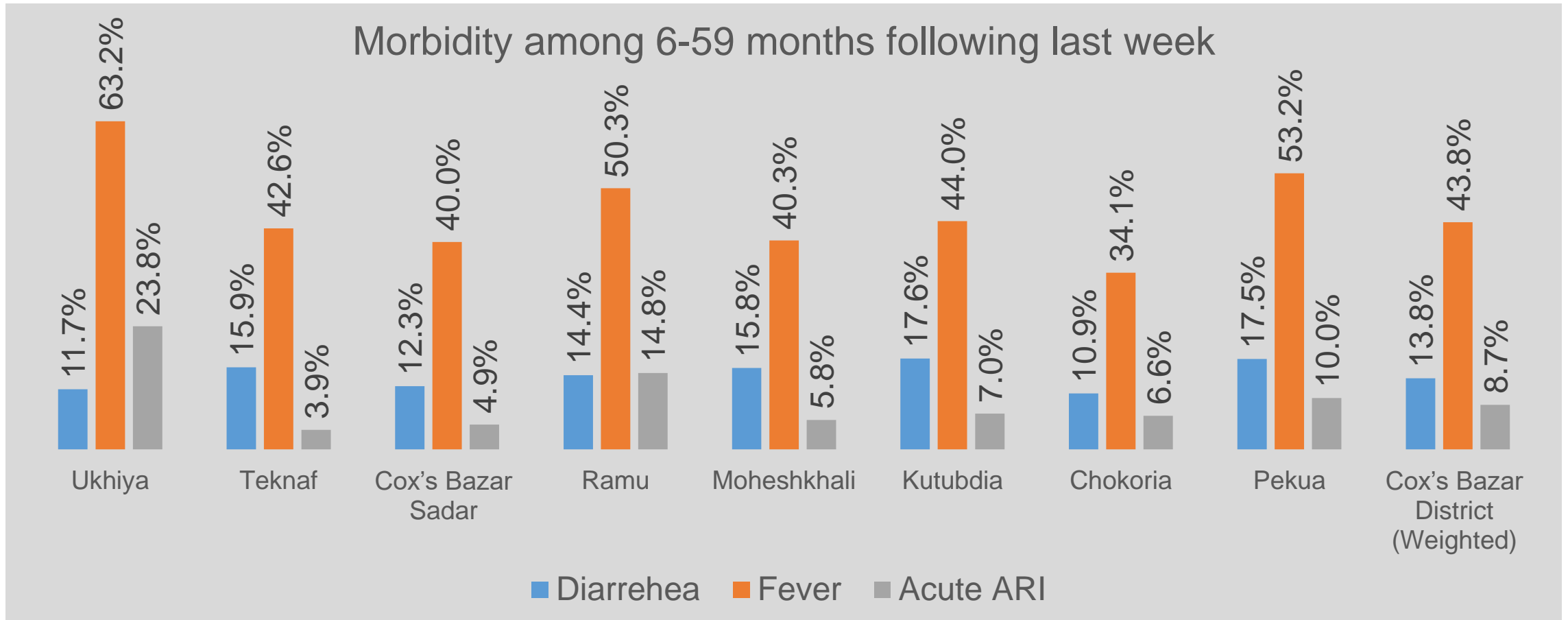


TREND OF UNDERNUTRITION AMONG CHILDREN 6-59M

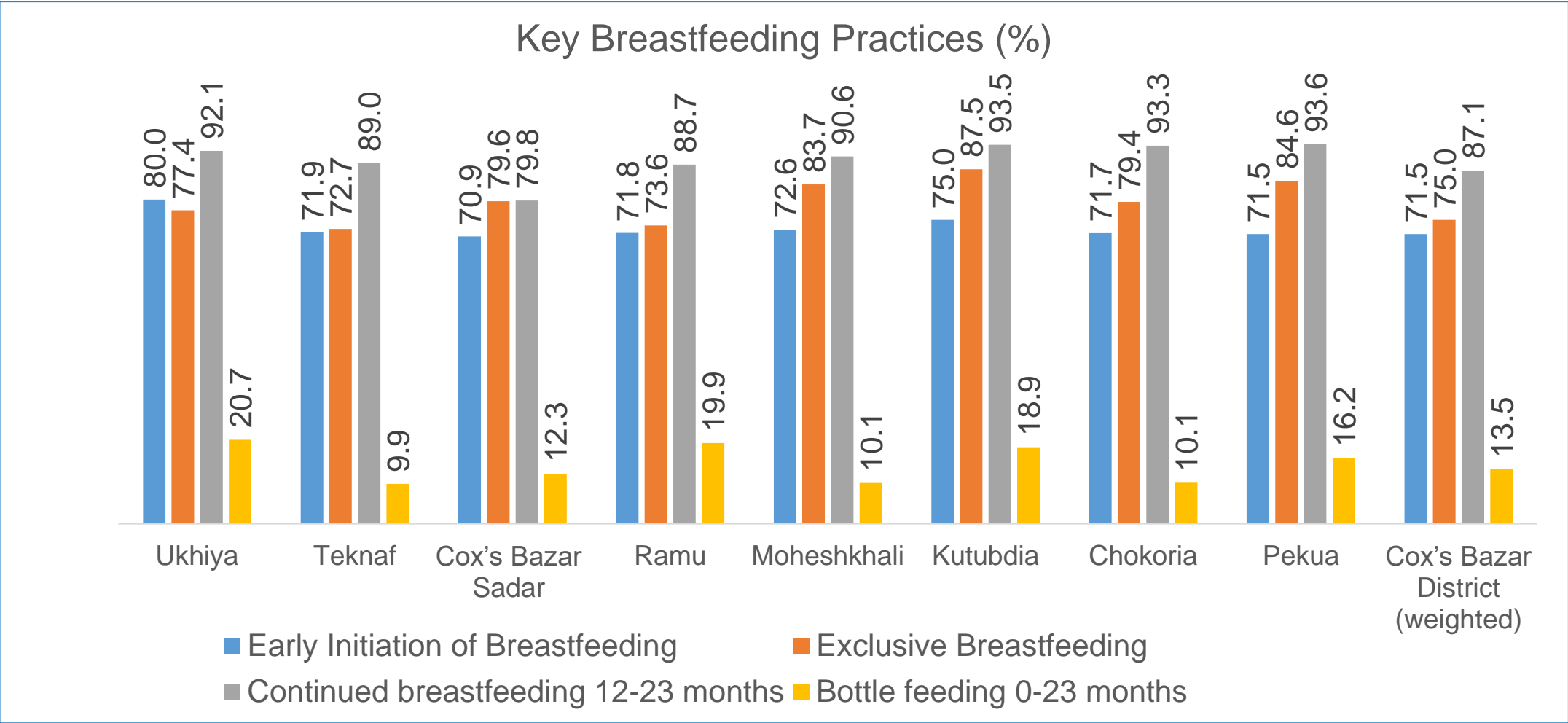
PEKUA (2021 VS 2023)



MORBIDITY PREVALENCE AMONG CHILDREN 6-59 MONTHS

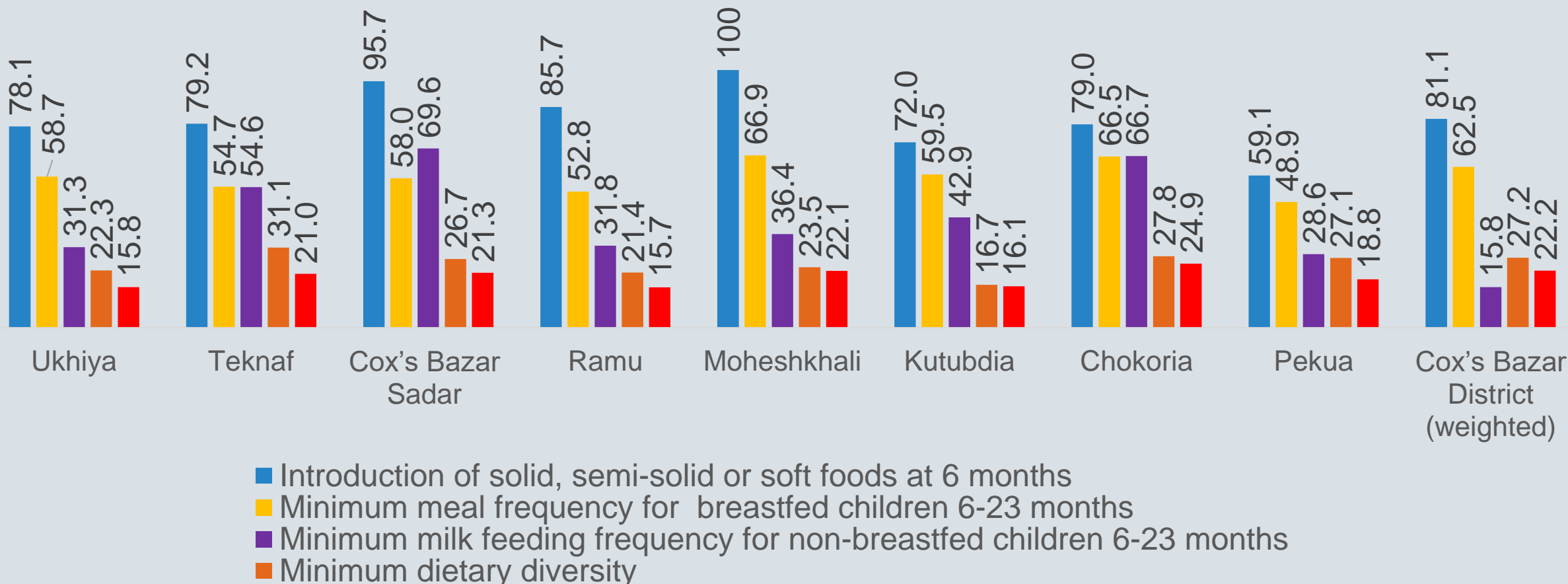


INFANT AND YOUNG CHILD FEEDING (IYCF) PRACTICES:

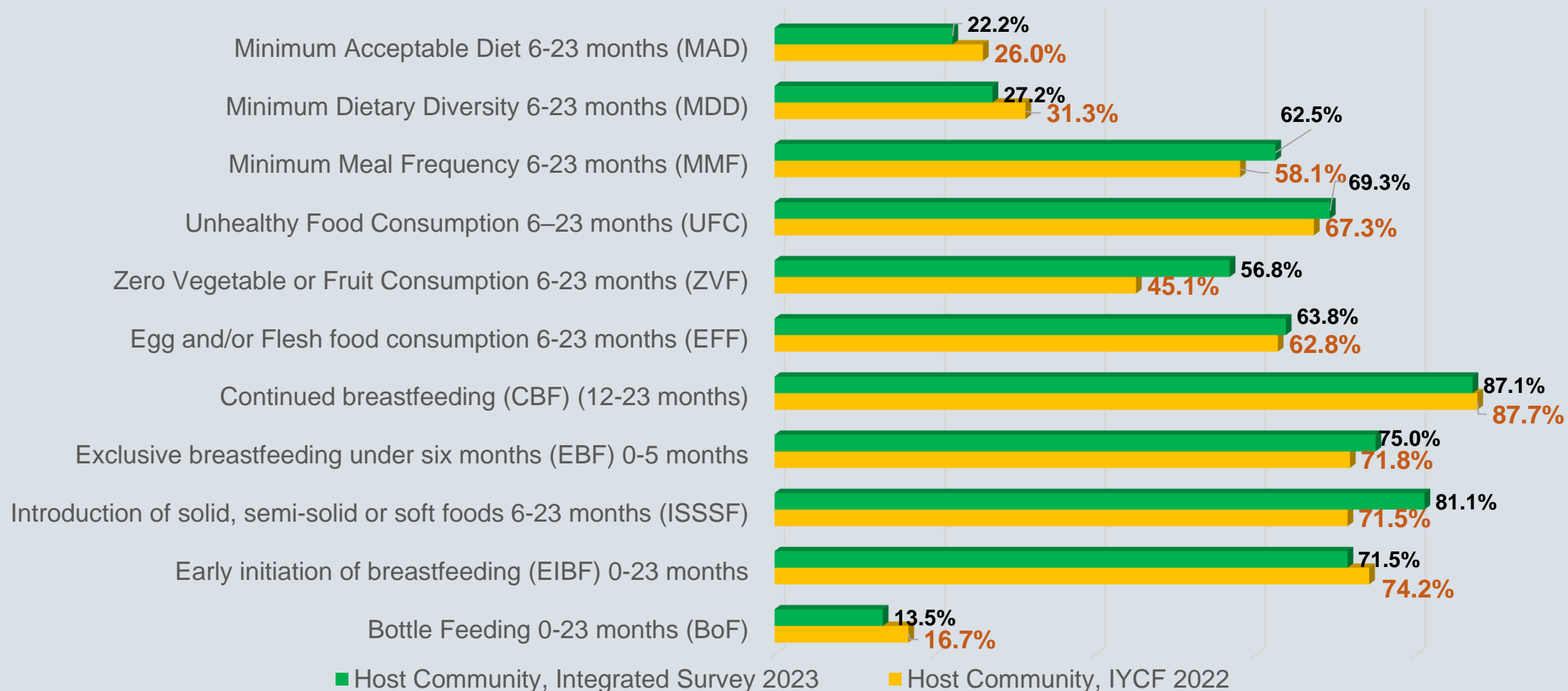


INFANT AND YOUNG CHILD FEEDING (IYCF) PRACTICES:

Key Complimentary Feeding Practices (%)



IYCF KEY FINDINGS IYCF ASSESSMENT 2022 VS SMART 2023



DIETARY DIVERSITY AND CONSUMPTION OF VARIOUS FOOD GROUP BY CHILDREN 6-23 MONTHS

Upazila	Grains, Roots, Tubers	Pulse, legumes and nuts	Milk and Milk product	Flesh foods	Eggs	Vitamin A rich fruits & vegetables	Other fruits and Vegetables	Minimum Dietary diversity	Minimum Acceptable diet
Ukhiya	89.7%	41.3%	14.7%	50.0%	32.1%	27.2%	33.2%	22.3%	15.8%
Teknaf	91.2%	39.2%	14.2%	58.1%	33.8%	33.1%	24.3%	31.1%	21.0%
Cox's Bazar Sadar	94.0%	46.0%	6.0%	55.3%	31.3%	19.3%	25.3%	26.7%	21.3%
Ramu	89.5%	26.2%	14.8%	45.9%	25.8%	21.0%	30.1%	21.4%	15.7%
Moheshkhali	94.5%	35.9%	11.7%	43.4%	33.8%	29.0%	31.0%	23.5%	22.1%
Kutubdia	90.5%	31.0%	6.5%	39.3%	25.0%	24.4%	24.4%	16.7%	16.1%
Chokoria	90.0%	33.5%	9.6%	48.3%	42.6%	16.7%	33.0%	27.8%	24.9%
Pekua	82.7%	24.8%	14.3%	51.1%	27.8%	15.0%	29.3%	27.1%	18.8%
Cox's Bazar District (weighted)	89.9%	34.7%	11.5%	48.9%	32.8%	23.3%	28.8%	27.2%	22.2%
Severe low			Moderate low		Mild low		Acceptable		
0 - <25%			25 - <50%		50- <75%		≥75%		

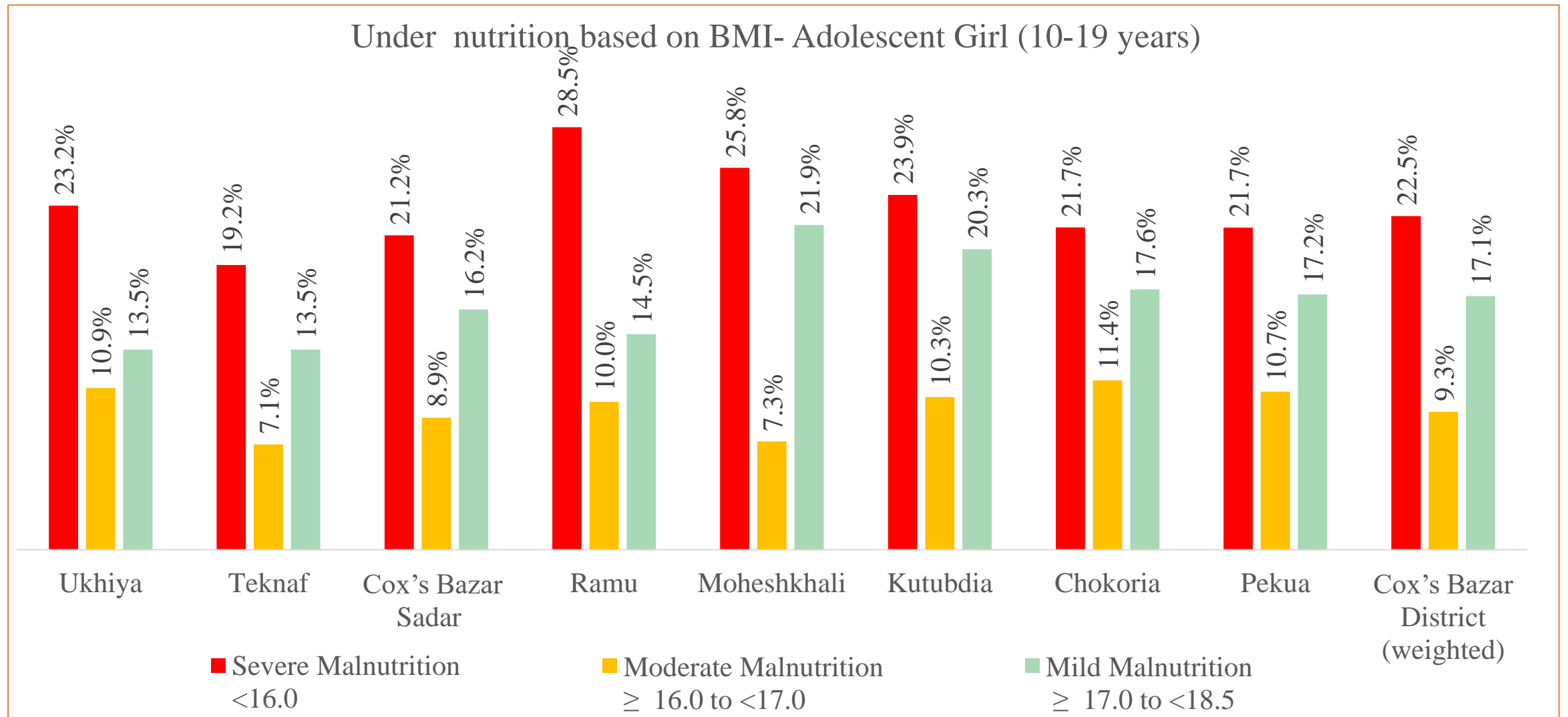
COVERAGE OF MEASLES VACCINATION, VITAMIN A SUPPLEMENTATION AND DEWORMING

Upazila	Measles vaccination with card or recall (9-59 months)-1st Dose	Measles vaccination with card or recall (9-59 months)-2nd Dose	Vitamin A among children aged 6-59m	Deworming Among children aged 24-59m
Ukhiya	97.0% (91.6 - 99.0)	97.3% (90.1 - 99.3)	80.0% (76.4 - 83.2)	76.8% (72.1 - 81.0)
Teknaf	96.3% (90.5 - 99.1)	81.5% (75.9 - 86.7)	85.2% (79.8 - 89.4)	90.2% (86.3 - 93.0)
Cox's Bazar Sadar	97.5% (92.8 - 99.0)	97.3% (92.0 - 99.7)	90.7% (87.3 - 93.3)	88.2% (83.0 - 92.0)
Ramu	97.2% (91.8 -99.0)	97.3% (92.0 - 99.8	90.7% (87.3-93.3)	88.2% (83.0-92.0)
Moheshkhali	97.1% (93.2 - 99.0)	94.7% (90.2 - 97.0)	92.5% (87.5 - 95.6)	93.3% (83.7 - 97.4)
Kutubdia	96.2% (90.3 - 99.0)	90.9% (83.0 - 97.1)	82.0% (71.9 - 89.0)	70.1% (64.7-74.9)
Chokoria	98.0% (92.7 - 99.1)	96.3% (88.5 - 99.0)	93.6% (89.4 - 96.2)	76.9% (72.3 - 81.0)
Pekua	96.5% (89.2 - 98.1)	94.8% (82.8 - 97.2)	79.7% (75.4-83.4)	66.4% (60.4 -71.9)
Cox's Bazar District (Weighted)	97.3% (96.6-97.9)	95.6% (94.7-96.6)	85.8% (84.4-87.3)	82.2% (79.7-84.7)

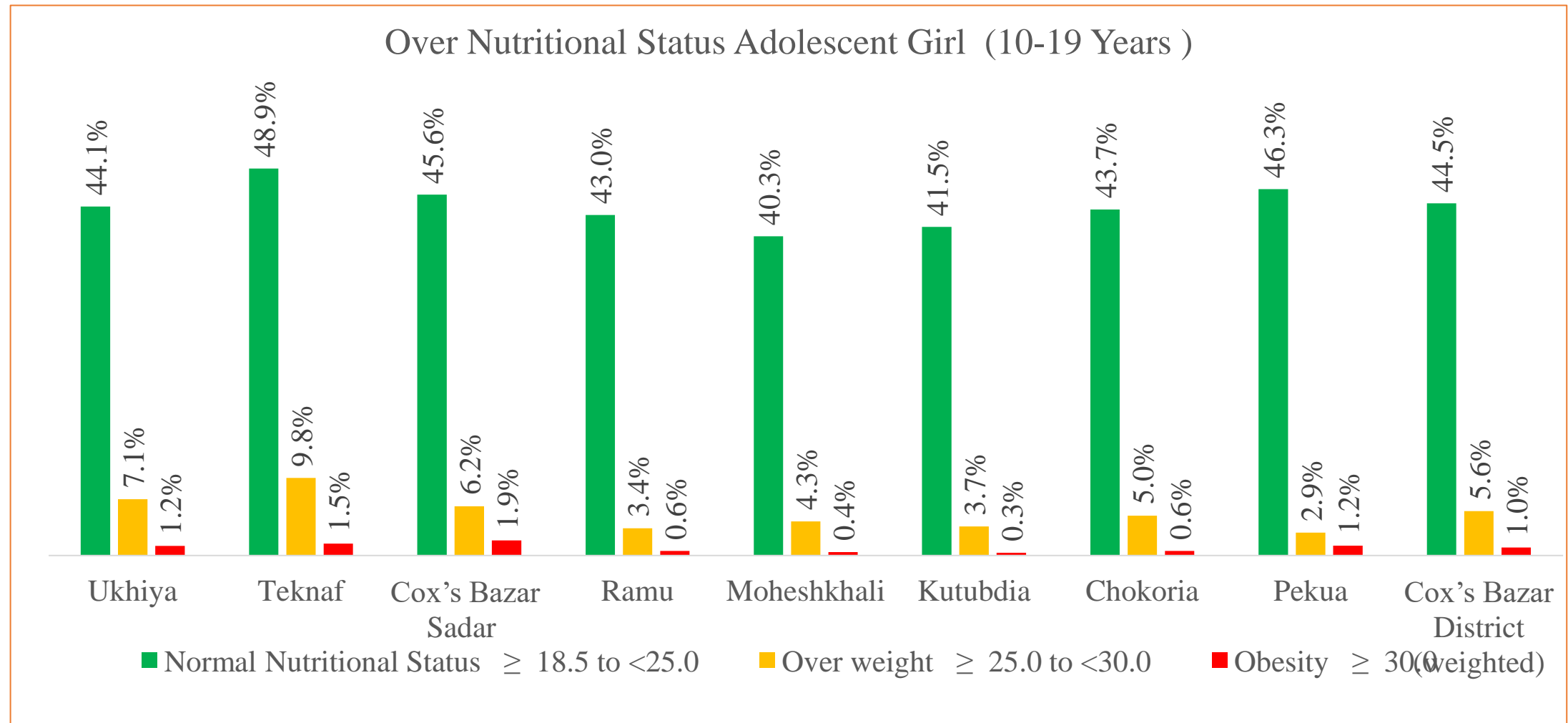
Key Results

Adolescent Girls (10-19 years)

SEVERITY OF UNDERNUTRITION AMONG ADOLESCENT GIRL BY USING BMI WHO RANGE



OVERALL NUTRITIONAL STATUS AMONG ADOLESCENT GIRL BY USING BMI WHO RANGE



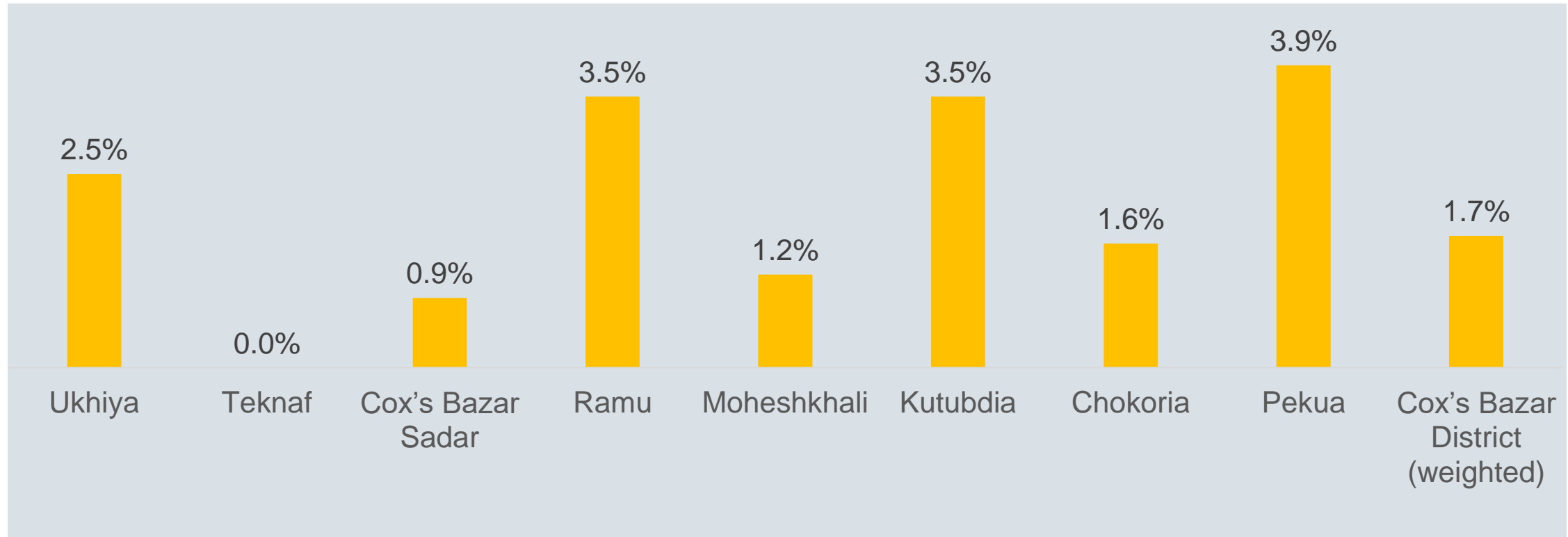
IFA CONSUMPTION AMONG ADOLESCENT GIRL FOLLOWING LAST WEEK

Upazila	N	IFA Consumption (at least Once in a week)	No IFA Consumption
Ukhiya	344	11.6%	88.4%
Teknaf	266	23.4%	76.7%
Cox's Bazar Sadar	249	18.9%	81.1%
Ramu	354	16.9%	83.1%
Moheshkhali	238	28.1%	71.8%
Kutubdia	246	14.6%	85.4%
Chokoria	361	11.3%	88.6%
Pekua	247	7.7%	92.3%
Cox's Bazar District (weighted)		10.7%	89.3%

Key Results

Pregnant and Lactating women

ACUTE MALNUTRITION AMONG PREGNANT AND LACTATING WITH CHILDREN <6 MONTHS [MUAC < 210 MM]

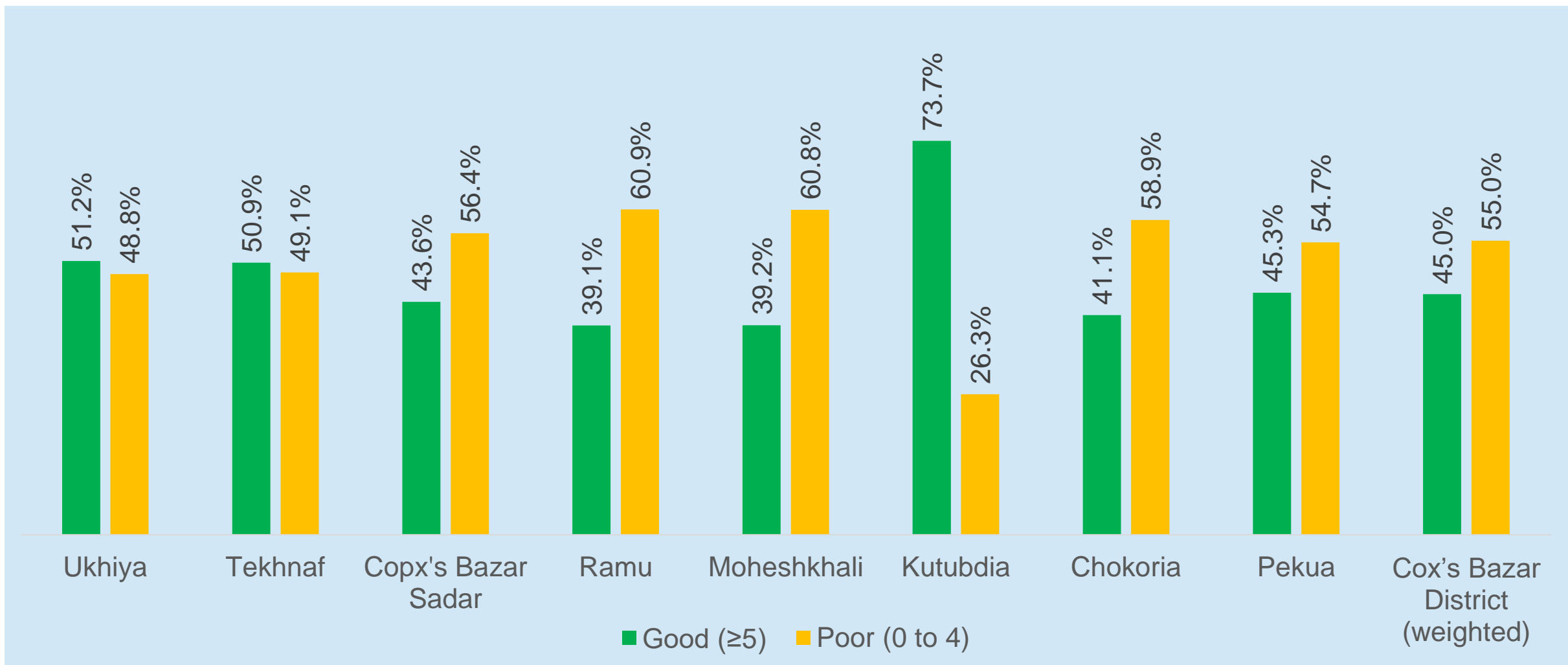


The reported GAM rate of 0% for Teknaf may be due to a potentially small sample size. For more accurate planning and resource allocation, consider using data from the nearest comparable area, such as Ukhiya, or the overall district data.

IFA CONSUMPTION AMONG PREGNANT WOMEN FOLLOWING LAST WEEK

Upazila	N	Daily IFA Consumption	< 7 days IFA Consumption	No IFA Consumption
Ukhiya	68	60.3%	22.20%	17.6%
Teknaf	51	41.2%	31.40%	27.5%
Cox's Bazar Sadar	58	56.9%	13.60%	29.3%
Ramu	76	47.4%	18.40%	34.2%
Moheshkhali	41	63.4%	12.20%	24.4%
Kutubdia	56	53.6%	21.50%	25.0%
Chokoria	67	55.2%	18.00%	26.9%
Pekua	46	47.8%	28.20%	23.9%
Cox's Bazar District (weighted)		58.3	20.9	20.8

MINIMUM DIETARY DIVERSITY AMONG WOMEN REPRODUCTIVE AGE (15-49 YEARS)



DIETARY PATTERNS AMONG WOMEN OF REPRODUCTIVE AGE (15-49 YEARS)

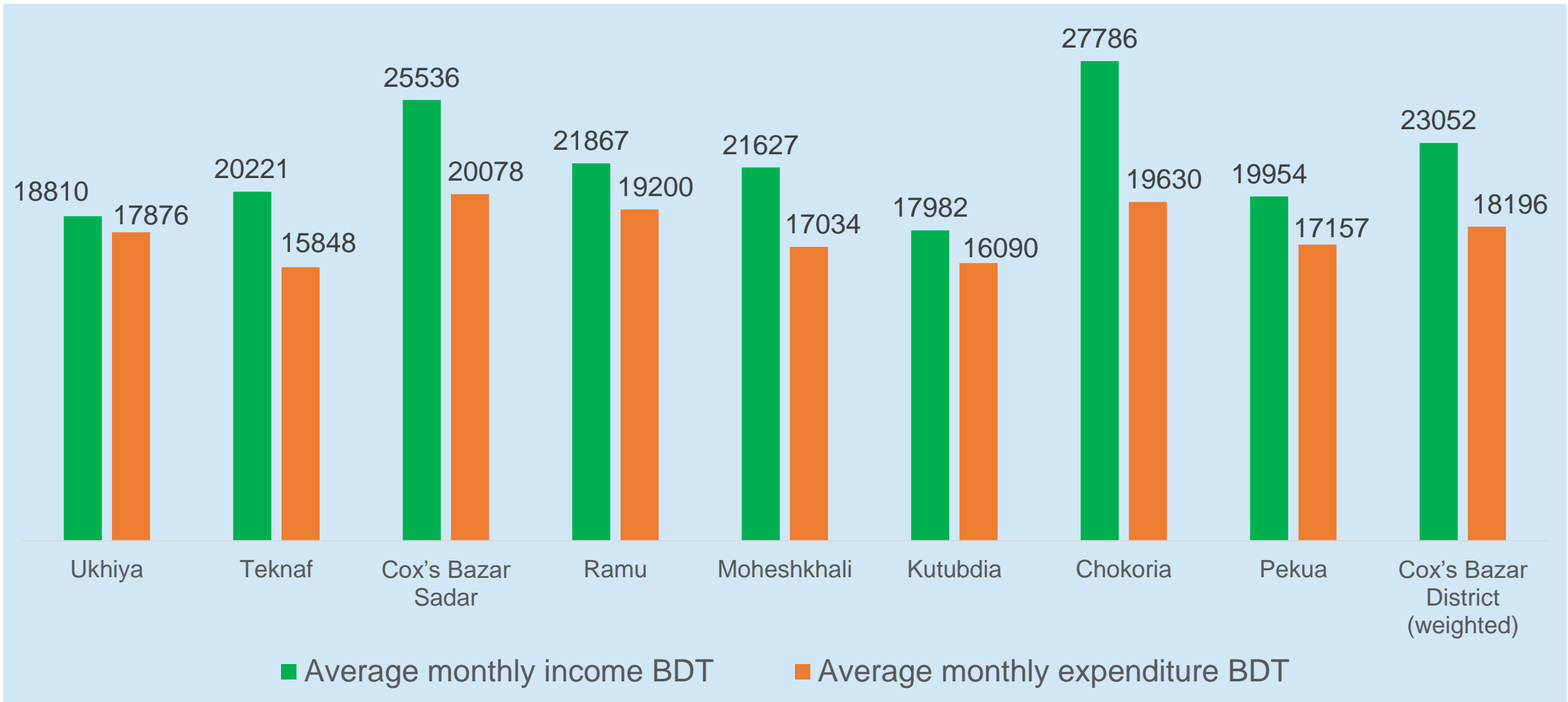
Upazila	Grains, white roots and tuber	Pulses (Beans, peas and lentils)	Nuts and Seeds	Milk and Milk Product	Meat, poultry and fish	Eggs	Dark Green Leafy Vegetables	Vitamin A Rich Fruits and Vegetables	Other vegetables	Other fruits
Ukhiya	98.4%	44.0%	12.8%	14.1%	92.2%	19.3%	57.3%	17.6%	7.9%	28.2%
Teknaf	99.1%	43.4%	13.3%	8.3%	95.6%	28.4%	57.5%	20.2%	11.5%	36.7%
Cox's Bazar Sadar	99.4%	44.0%	11.3%	9.7%	93.7%	33.1%	44.4%	14.3%	0.1%	26.4%
Ramu	99.3%	40.9%	7.9%	12.6%	94.3%	23.4%	44.4%	9.1%	83.6%	23.9%
Moheshkhali	99.5%	44.4%	8.2%	4.5%	92.3%	24.5%	42.3%	6.2%	11.7%	16.8%
Kutubdia	98.8%	37.3%	8.6%	8.7%	95.5%	21.0%	54.3%	6.4%	93.3%	16.5%
Chokoria	99.4%	43.0%	11.8%	6.7%	92.5%	29.2%	37.9%	7.8%	88.4%	20.7%
Pekua	98.6%	41.3%	6.4%	12.2%	94.9%	19.2%	52.8%	4.5%	90.9%	0.0%
Cox's Bazar District (weighted)	99.2%	42.9%	10.4%	9.1%	93.6%	26.5%	46.6%	14.9%	84.5%	24.1%

Severe low	Moderate low	Mild low	Acceptable
0 - <25%	25 - <50%	50- <75%	≥75%

Key Findings Results

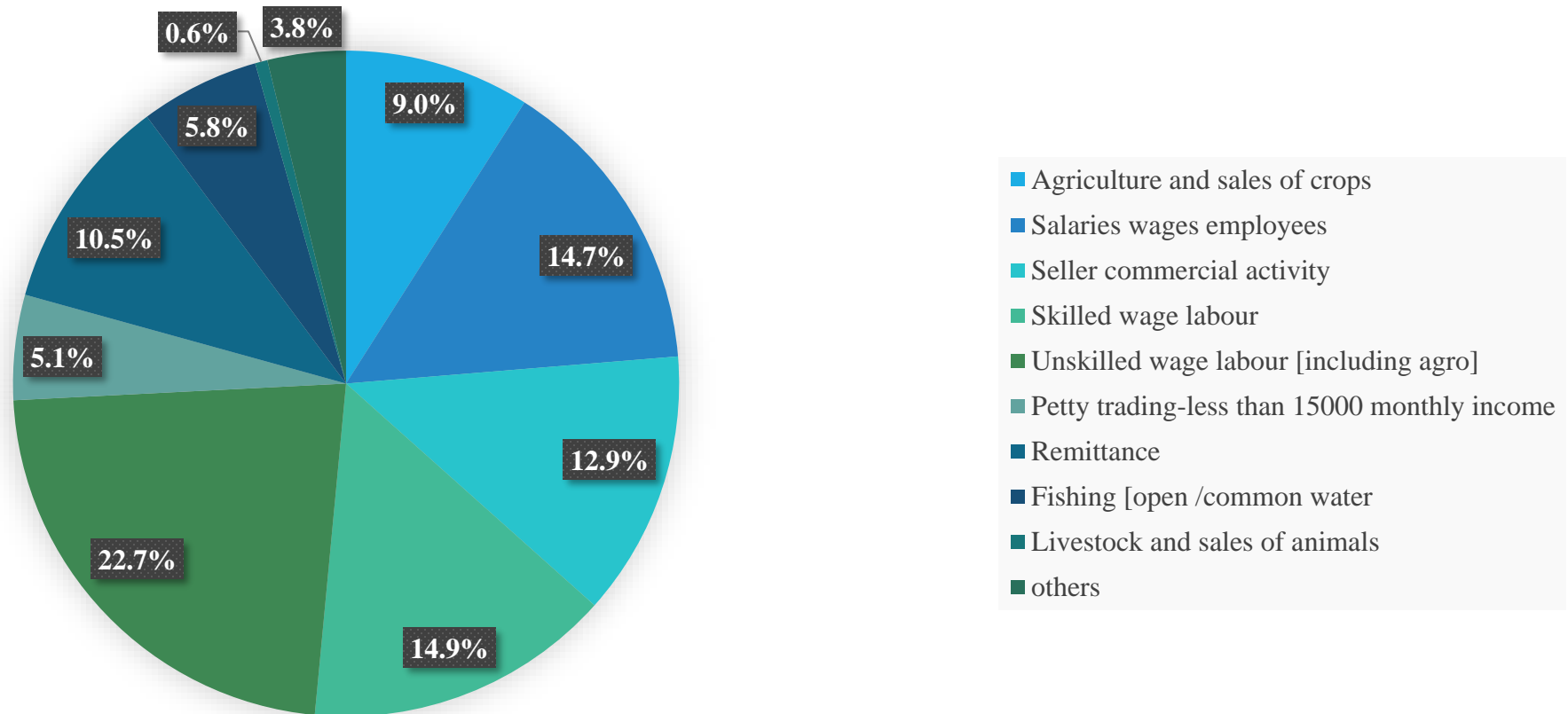
Livelihood, Food Security and WASH

HOUSEHOLD INCOME AND EXPENDITURE [BDT]

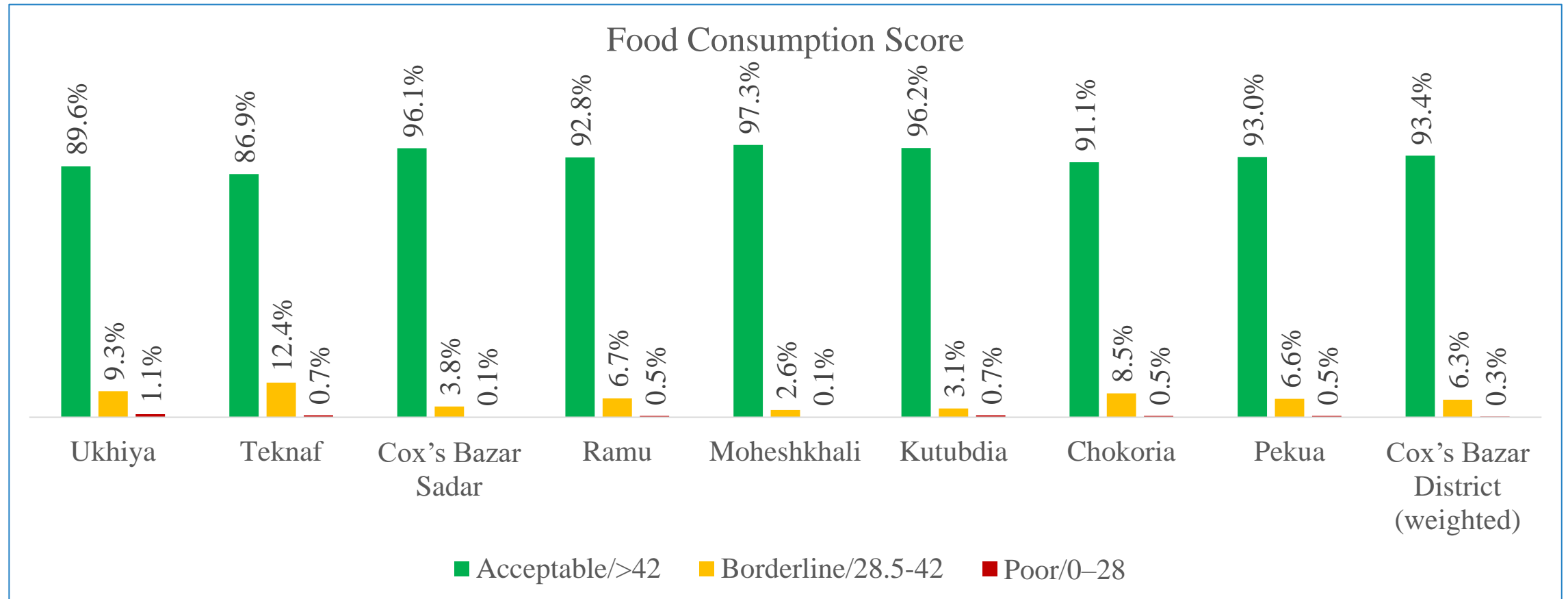


OVERALL MAIN SOURCE OF INCOME FOR THE HOUSEHOLD

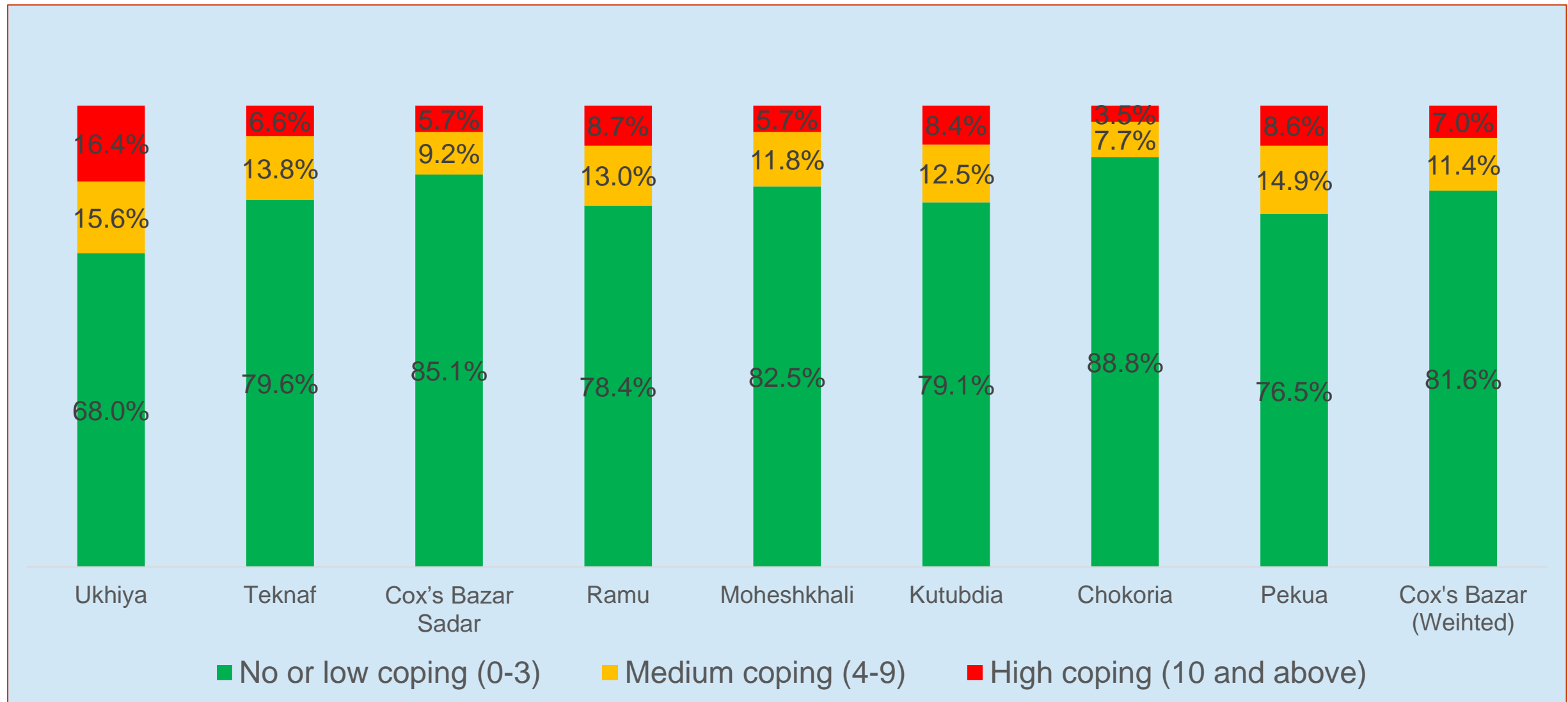
Main Source of Income-Cox's Bazar District)



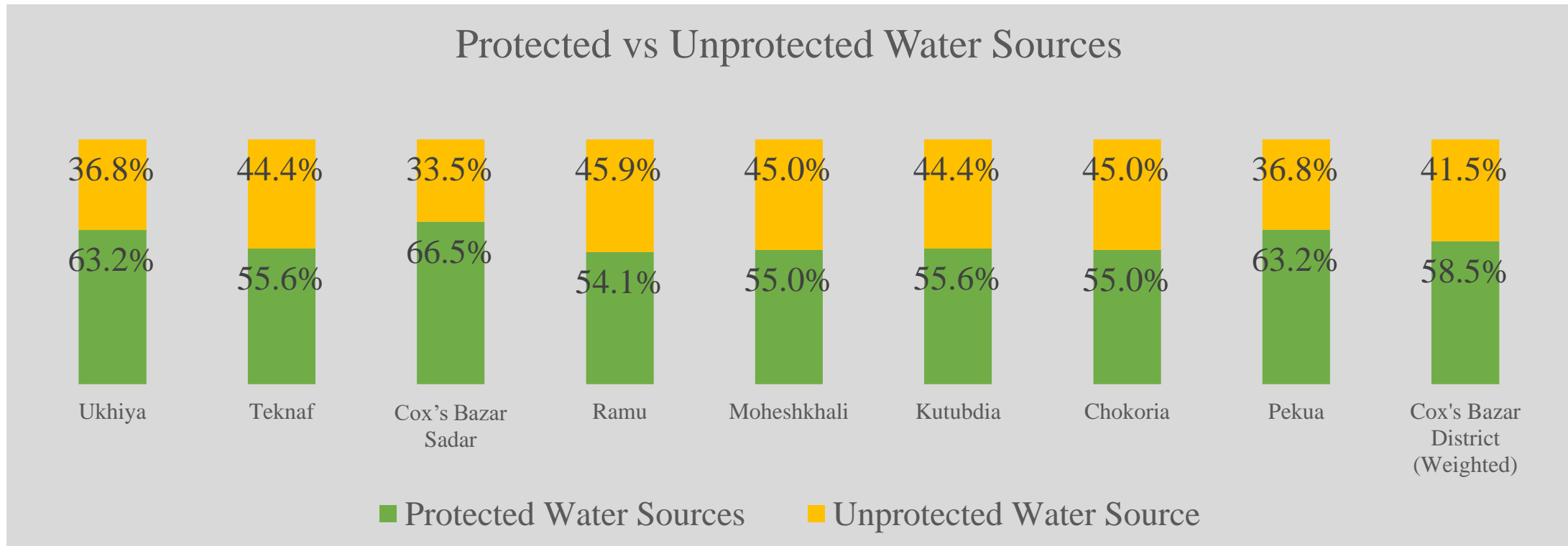
HOUSEHOLD FOOD SECURITY STATUS (FOOD CONSUMPTION SCORE)



HOUSEHOLD FOOD BASED REDUCED COPING STRATEGY (RCSI)



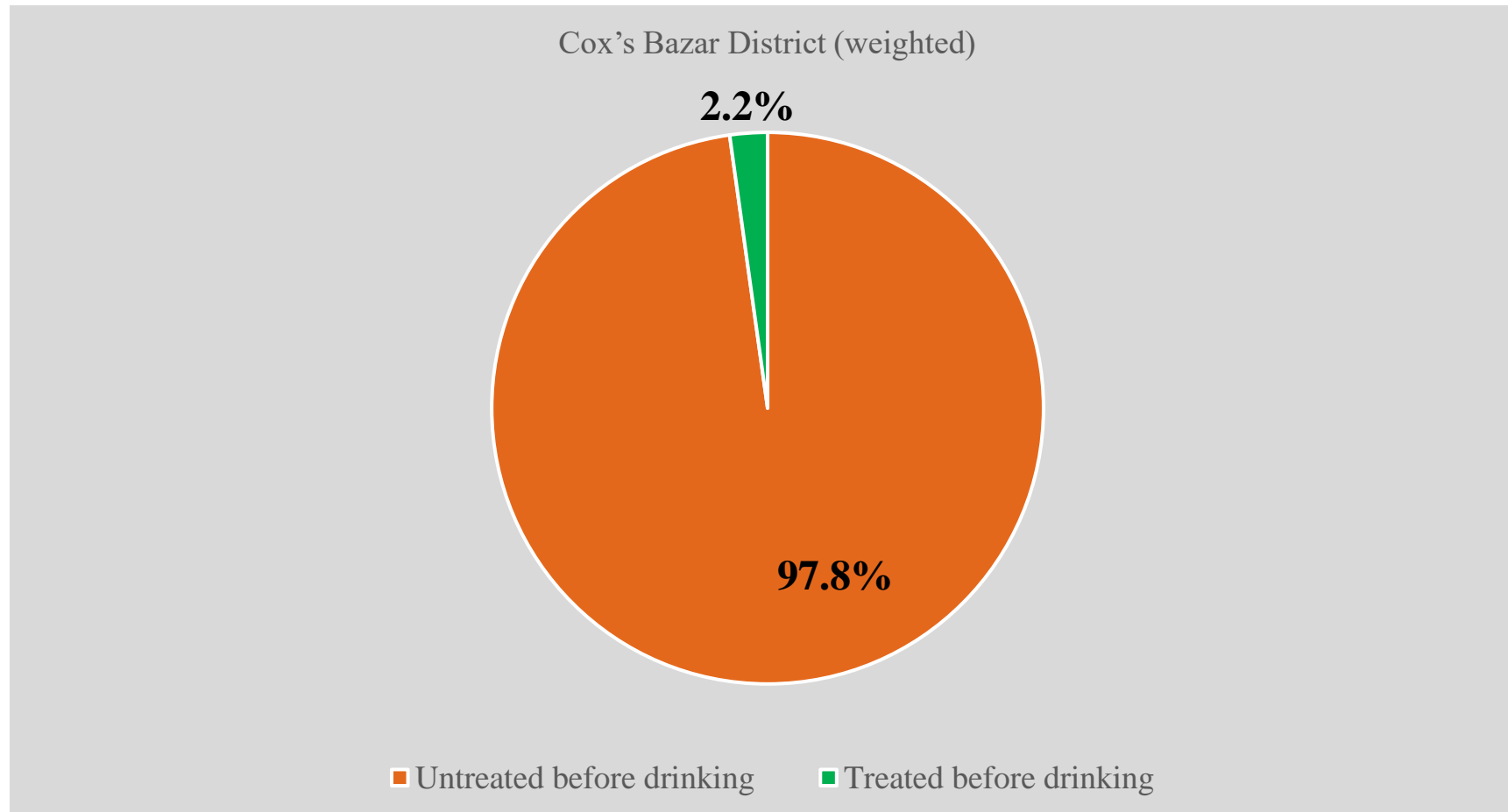
MAIN SOURCE OF DRINKING WATER



***Protected Water Sources:** These include deep or shallow tubewells with platforms and proper drainage, protected wells, piped water systems, and rainwater collection systems. (DPHE Definition)

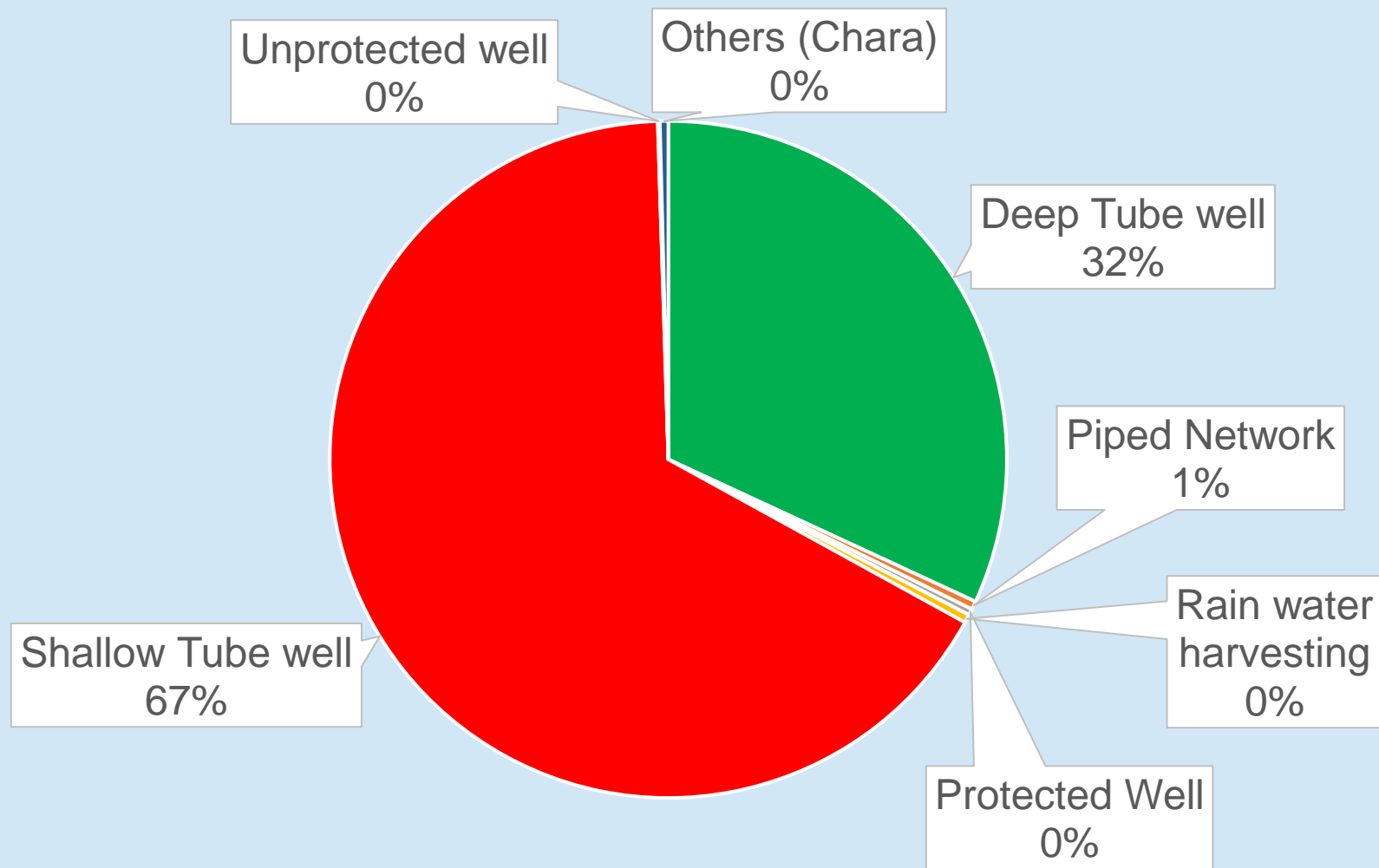
Unprotected consider deep or shallow tubewells without platforms and proper drainage, unprotected well and open sources. (DPHE Definition)

WATER TREATMENT BEFORE DRINKING



Treated: Through boiling, filtering, Aquatab

MAIN SOURCE OF DRINKING WATER



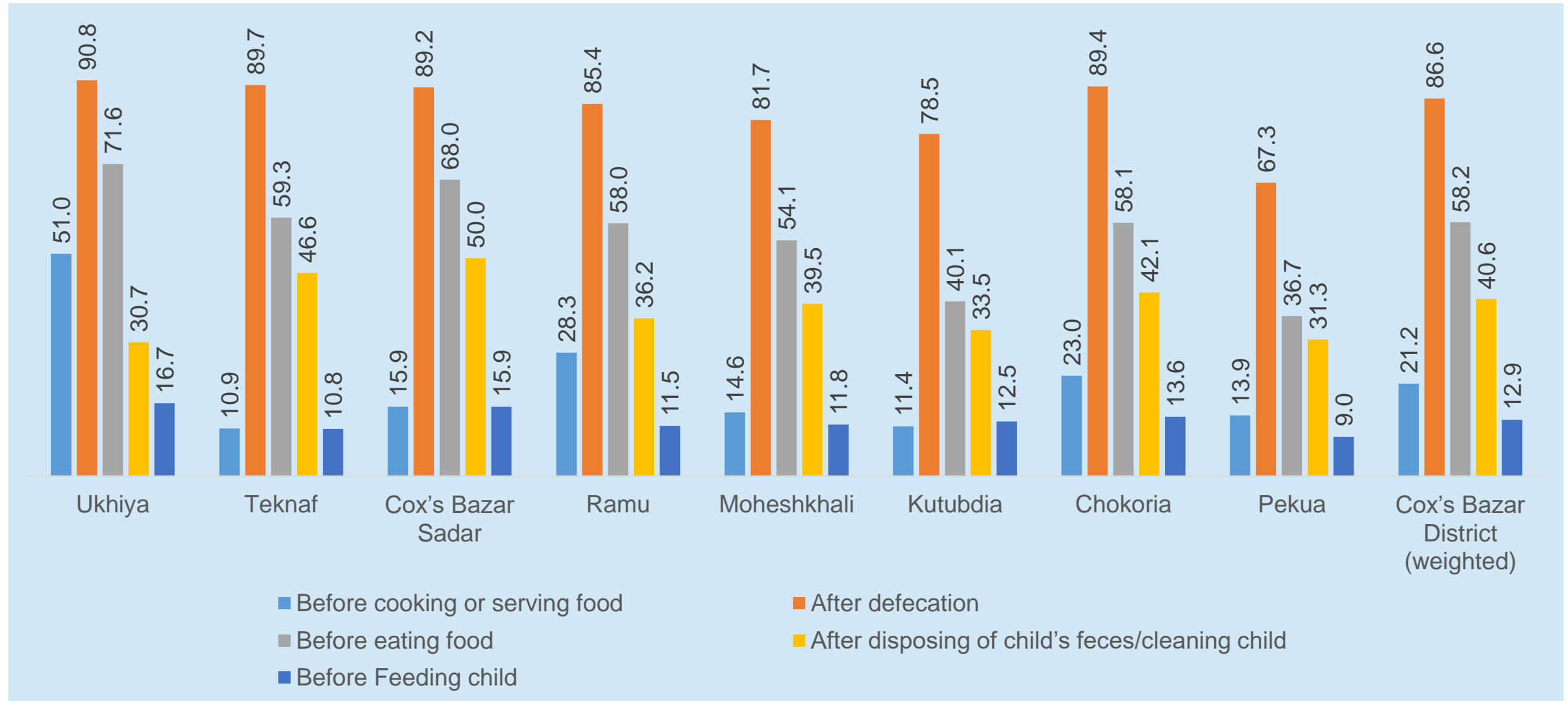
HOUSEHOLD TOILET/LATRINE FACILITIES

Upazila	N	Improved	Not Improved
Ukhiya	944	69.5%	30.5%
Teknaf	695	54.7%	45.3%
Cox's Bazar Sadar	739	59.1%	40.8%
Ramu	1015	58.4%	41.7%
Moheshkhali	704	52.6%	47.4%
Kutubdia	678	61.2%	38.8%
Chokoria	1028	64.2%	35.8%
Pekua	625	59.5%	40.5%
Cox's Bazar District (Weighted)		59.9%	40.1%

Improved: Bio Fill Latrine, Latrine with water seal, Latrine with Septic Tank, Others(Public toilets, Shared etc). (DPHE Definition)

Not Improved: Hanging Latrine, Latrine which pit is broken/unmanaged/mixed with nearby water body, Latrine without water seal, Open defecation (DPHE Definition)

HANDWASHING PRACTICE DURING CRITICAL TIME WITH WATER AND SOAP/ASH



LIMITATIONS OF THE SURVEY

- ❑ Cross-sectional survey: snapshot in time, unable to establish causal relationships.
- ❑ No separate sample size for IYCF; covered under the anthropometric sample size therefore
Limitation of representative sample for IYCF within respective age groups

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- Upazila Family Planning Officers-Ukhiya, Teknaf, Cox's Bazar Sadar, Ramu, Moheshkhali, Pekua, Chokoria and Kutubdia.
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- Nutrition Sectors-Partners (Specially WFP & SHED)
- The Surveillance Team and Community People
- Upazila Nutrition Supervisors

End !
Any Questions

