



Afghanistan National Nutrition Surveillance System Bulletin

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Ministry of Public Health
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Public Nutrition Department



Community Surveillance /
MOPH /Dr.Hazrat

Progress to date:

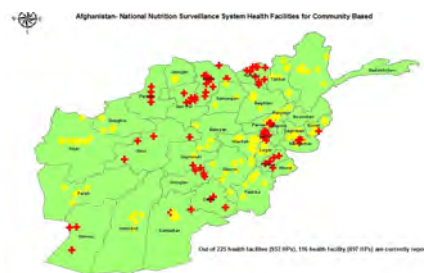
- 175 facility-based sentinel sites and 953 community-based sentinel sites established in all 34 provinces
- 34 provinces are reporting from health facility sentinel sites
- 24 provinces are reporting from 116 health facilities and 497 community sentinel sites
- NNSS has been expanded to all 34 provinces

Background:

In March 2013 the Ministry of Public Health, WHO and UNICEF began operationalizing a sentinel site-based national nutrition surveillance system (NNSS) in Afghanistan in coordination and partnership with the Basic Package of Health Services (BPHS) and the Essential Package of Hospital Services (EPHS) implementers and other service providers. Funded by the Global Affairs Canada (GAC), the project seeks to establish a sentinel site-based nutrition surveillance system that covers all 34 provinces of the country. A well-functioning nutrition surveillance system provides timely and reliable information which helps the government and partners to effectively plan and implement maternal, neonatal and child health and nutrition programs. Ultimately, the system seeks to increase access to equitable and gender-sensitive health and nutrition services to mothers and children, while ensuring that their health needs are met and vulnerabilities reduced.



174 NNSS health facility sentinel sites are reporting



497 NNSS community sentinel sites are reporting

Key NNSS Objectives and Expected Outcomes:

Objective >>>

To establish a unified nutrition surveillance system composed of community and health facility sentinel sites and surveys for timely action.

- Enhanced capacity of government to plan, implement, and evaluate maternal, neonatal and child health strategies and programs.

Immediate Outcome

Intermediate Outcome

- Increased equitable and gender-sensitive health services to mothers, newborns, and children under 5

- Basic health needs met and reduced vulnerability of the people in Afghanistan, with a focus on women and girls.

Ultimate Outcome

Overview of the Health and Community-based Nutrition Surveillance System

Afghanistan's national sentinel-site based nutrition surveillance system has continued to collect data from 174 health facilities and 497 community sites. Community reporting has improved from 21 provinces in the second quarter to a total of 24 provinces reporting in quarter 3 of 2016. Fifteen provinces are consistently reporting in all quarters.

Efforts to improve the quality of data have continued, including joint support visits to sentinel sites and introducing data quality assurance processes for the team. The general trends from health facility and community data show consistent malnutrition levels, implying possible high levels of acute and malnutrition levels in the population that need further investigation through in-depth surveys. Generally the results were showing increasing trends of malnutrition when compared to those of quarter 2 in 2015.



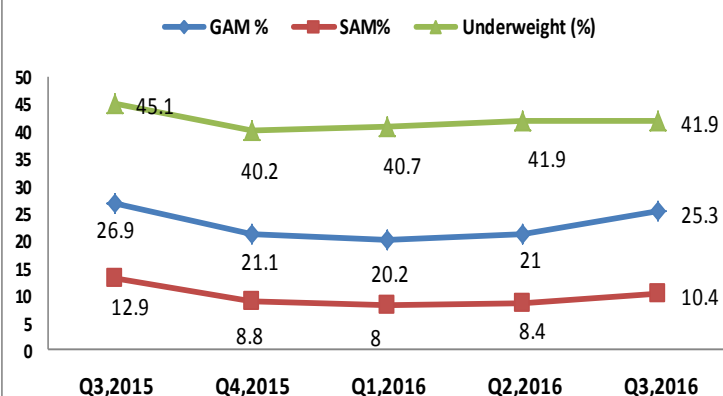
MUAC measurement at Bagh-e- Maidan CHC+ in Parwan. Photo: MoPH/B. Qureshi

Results from Health Facility-based Sentinel Sites:

1. Anthropometric Analysis Results (analyzed using ENA database and WHO-flags)

Qtrs	Quarter-3 (2015)				Quarter-4 (2015)				Quarter-1 (2016)				Quarter-2 (2016)				Quarter-3 (2016)								
Sex	Smple size	Weight/Height				Smple size	Weight/Height				Smple size	Weight/Height				Smple size	Weight/Height								
		No	<-3 SD	No	<-2 SD		No	<-3 SD	No	<-2 SD		No	<-3 SD	No	<-2 SD		No	<-3 SD	No	<-2 SD					
		Acute Malnutrition (Wasting)																							
All	13269	1716	12.9	3571	26.9	14325	1260	8.8	3022	21.1	14122	1124	8	2859	20.2	17549	1469	8.4	3678	21	20183	2099	10.4	5103	25.3
Boys	6902	966	14	1995	28.9	7488	726	9.7	1726	23.1	7233	643	8.9	1612	22.3	9045	875	9.7	2130	23.5	10456	1282	12.3	2997	28.7
Girls	6367	750	11.8	1576	24.8	6837	534	7.8	1296	19	6889	481	7	1247	18.1	8504	594	7	1548	18.2	9727	817	8.4	2106	21.7
Underweight (Weight/Age)																									
All	13947	3496	25.1	6294	45.1	14796	3168	21	5953	40.2	14359	3048	21	5843	40.7	17837	3642	20.4	7473	41.9	20504	4242	20.7	8584	41.9
Boys	7287	2040	28	3595	49.3	7752	1947	25	3465	44.7	7379	1817	25	3349	45.4	9190	2232	24.3	4306	46.9	10668	2603	24.4	5079	47.6
Girls	6660	1456	21.9	2699	40.5	7044	1221	17	2488	35.3	6980	1231	18	2494	35.7	8647	1410	16.3	3167	36.6	9836	1639	16.7	3505	35.6
Stunting (Height/Age)																									
All	13094	3642	27.8	6164	47.1	14028	3811	27	6303	44.9	13495	3876	29	6303	46.7	16983	4861	28.6	8165	48.1	19755	5103	25.8	8835	44.7
Boys	6742	2126	31.5	3454	51.2	7236	2255	31	3531	48.8	6823	2254	33	3441	50.4	8673	2881	33.3	4562	52.6	10182	3082	30.3	5037	49.5
Girls	6352	1516	23.9	2710	42.7	6792	1556	23	2772	40.8	6672	1622	24	2862	42.9	8310	1980	23.8	3603	43.4	9573	2021	21.1	3798	39.7

Malnutrition Indicators



General Analysis of Key Indicators –GAM, SAM and Underweight

All anthropometric indicators declined compared to the same quarter of 2015 while GAM and SAM indicators increased compared to the last quarter.

- ◆ **Global Acute Malnutrition (GAM)** proportion were Q3, 2015 26.9%, Q4, 2015 21.1%, Q1, 2016 20.2% Q2, 2016 21% and Q3, 2016 25.3%
- ◆ **Severe Acute Malnutrition (SAM)** was at 12.9% in Q3 of 2015, and 10.4% in Q2 of 2016.
- ◆ **Underweight** was reported at Q3 45.1%, Q4 40.2%, Q1 2016 40.7%, Q2, and Q3 2016 41.9%

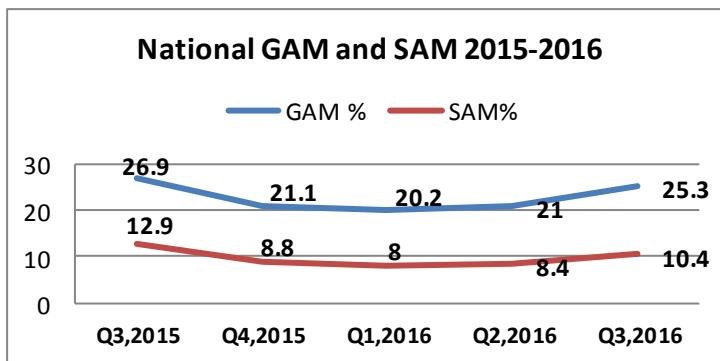
Anthropometric results - National health-facility data:

Key Successes:

- 174 health facility sentinel sites (99.4%) from 34 provinces have reported this quarter
- 497 community sentinel sites (52%) from 24 provinces reported during this quarter
- Six quarterly nutrition surveillance bulletins released and disseminated so far
- NNSS data used in informing in-depth nutrition study in Herat province
- NNSS data, along with nutrition routine data, used as a source in justification of mobilizing resources for Common Humanitarian Fund (CHF) funding for in-depth assessments
- NNSS data analyzed at the provincial level and the results are shared with stakeholders



A child is examined for oedema at Mata Khan CHC, Paktika. Photo: MoPH/Dr. Amin



Wasting in children is an indicator of acute malnutrition. GAM levels for 2015 and 2016 were consistently above 15%, which increases the risk of death for children. Severe acute malnutrition has consistently been above emergency levels (above 2%) during the last five quarters.

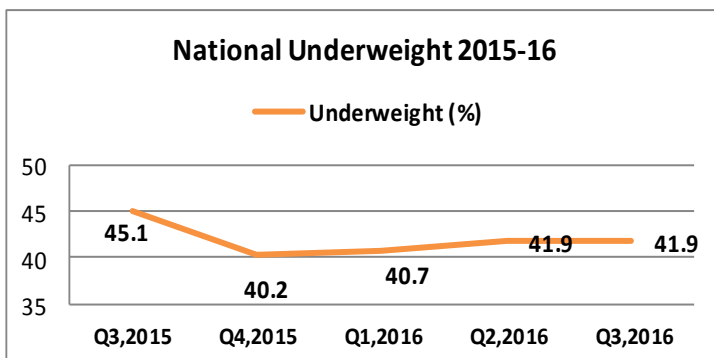
SAM level was lower in the third quarter of 2016 at 10.4% as compared to the same quarter last year; however it has increased compared to the last quarter of 2016.



A child is examined for oedema at a health facility in Bamyan. Photo: MoPH/Noor



Measuring board at a health facility site in Parwan. Photo: MoPH/B.Qureshi



Underweight:

Underweight in children indicates acute weight loss, stunting, or both. The underweight levels for 2015 and 2016 were consistently in the “very high prevalence” levels (above 30%). Children who suffer from underweight are at greater risk of death. Underweight rate showed a decline as compared to the same quarter of last quarter, while it remained at the same level of the last quarter.

1526 STAFF FROM HEALTH FACILITIES AND **2613** STAFF (853 FEMALE AND 1760 MALE) FROM COMMUNITY-BASED SENTINEL SITES, INCLUDING **2446** COMMUNITY HEALTH WORKERS AND **167** COMMUNITY HEALTH SUPERVISORS HAVE BEEN TRAINED ON THE NUTRITION SURVEILLANCE SYSTEM TO DATE



NNSS refresher training for health facility sentinel site staff in Badakhshan Photo: MOPH/Dr. Hazrat



NNSS refresher training in Baghlan. Photo: MOPH/Dr. Hazrat



NNSS refresher training for health facility sentinel site staff in Mazar-i-Sharif. Photo: MOPH/Dr. Hazrat

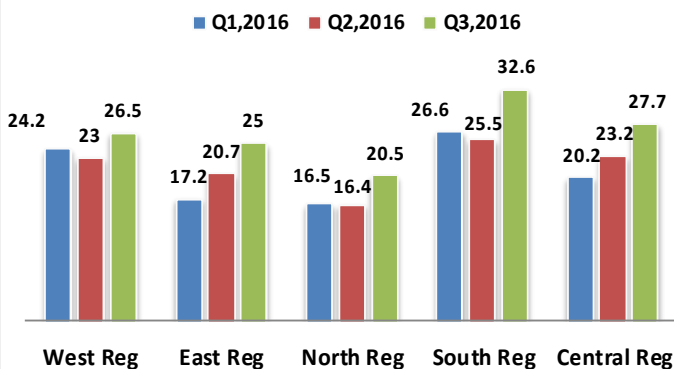
Regional Comparison of GAM and SAM Levels

The Southern Region reported the highest level of GAM (32.6%) during the third quarter of 2016 whilst the lowest level was reported in the Northern Region (20.5%). All regions showed an increase in GAM proportion in the 3rd quarter 2016 when compared to the 2nd quarter of the year.

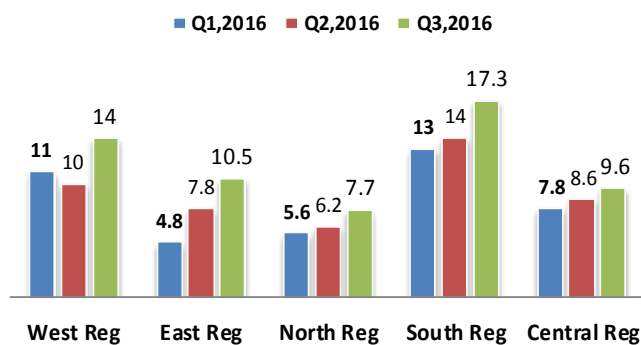
The Southern Region reported the highest level of SAM (17.3%) during the third quarter of 2016 whilst the lowest level was reported from the Northern Region (7.7%). All regions showed an increase in SAM proportion in this quarter as compared to the second quarter of 2016. The increase of GAM and SAM levels in quarter 3 of 2016 is consistent with the levels of GAM and SAM in quarter 3 of 2015, which corresponds to the summer season in the country.

Efforts have been made to ensure complementarity of nutrition information systems where the health and community-based system informs parts of in-depth surveys.

Regional Comparison for GAM %

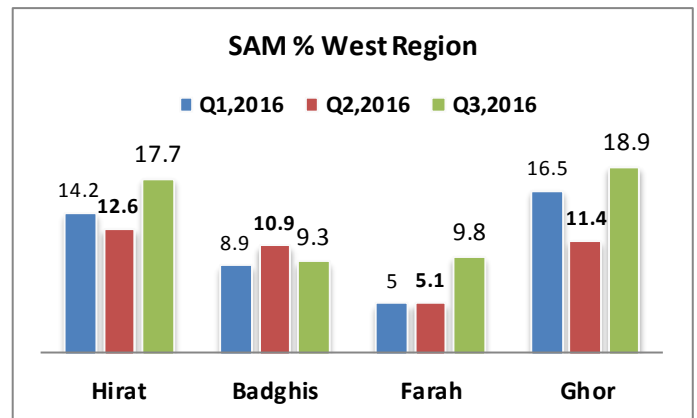
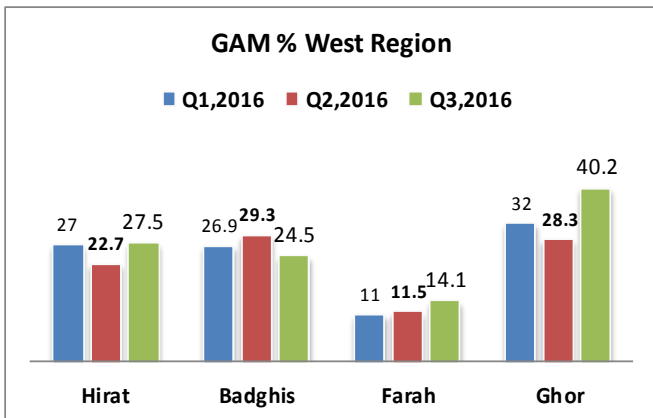
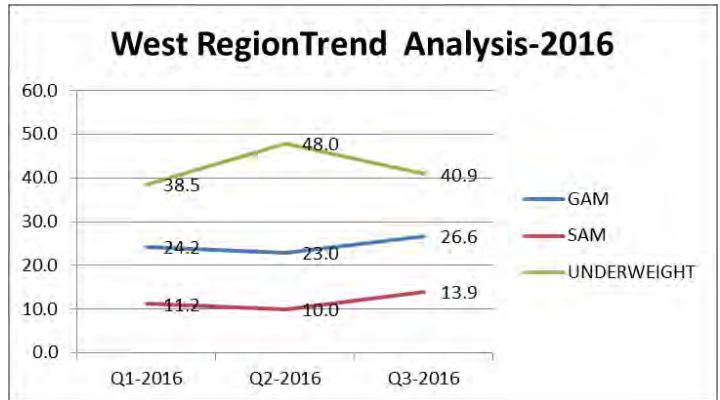


Regional Comparison for SAM %

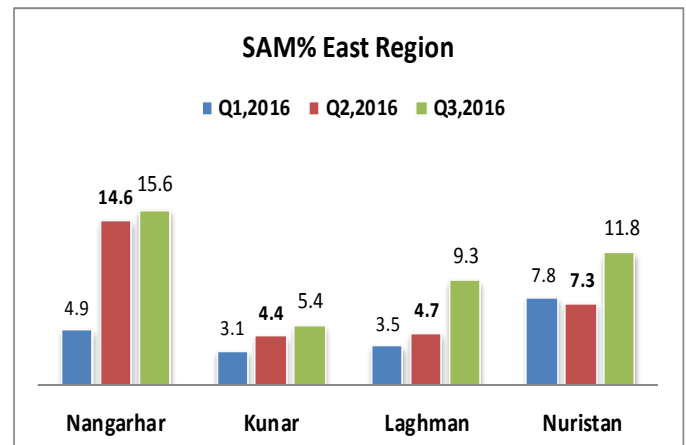
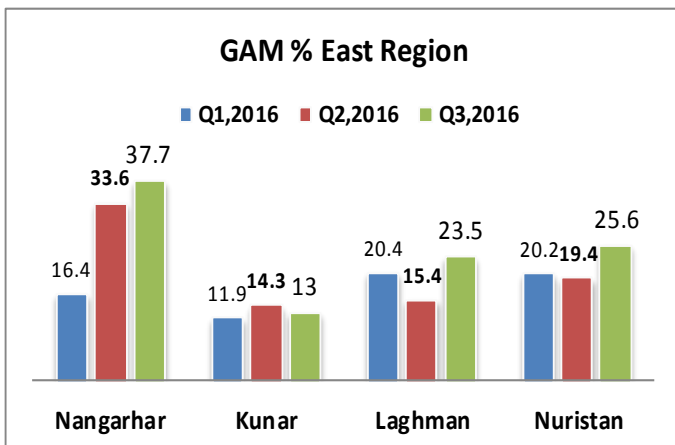
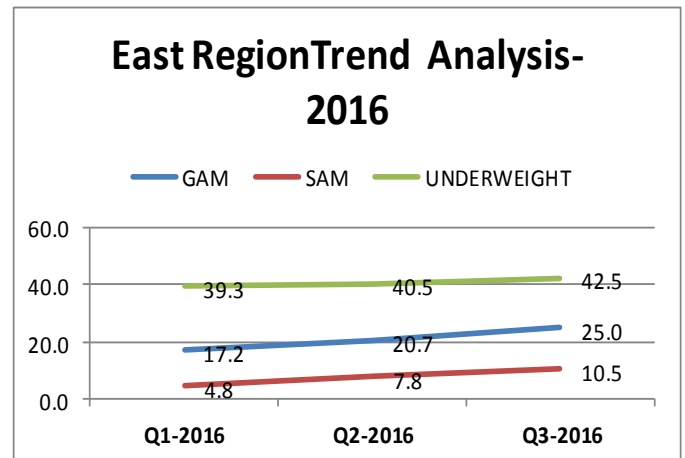


Regional and Provincial Analysis

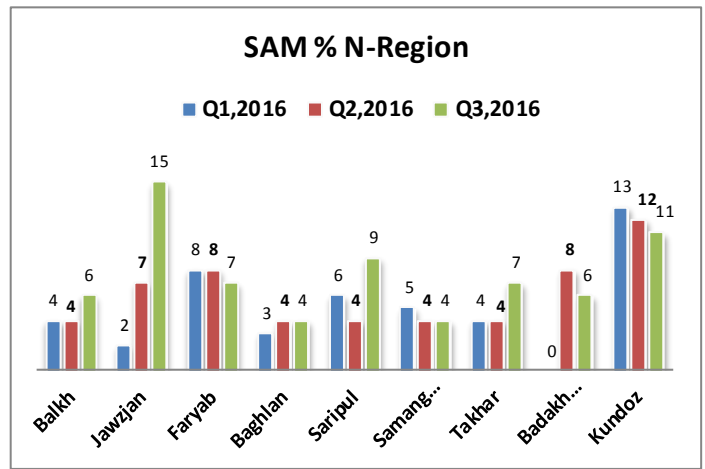
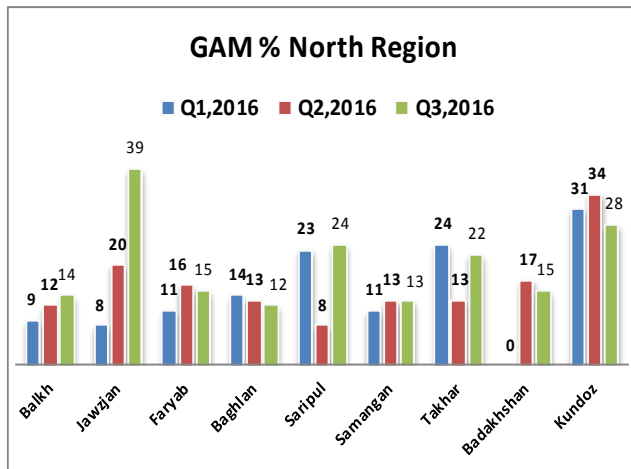
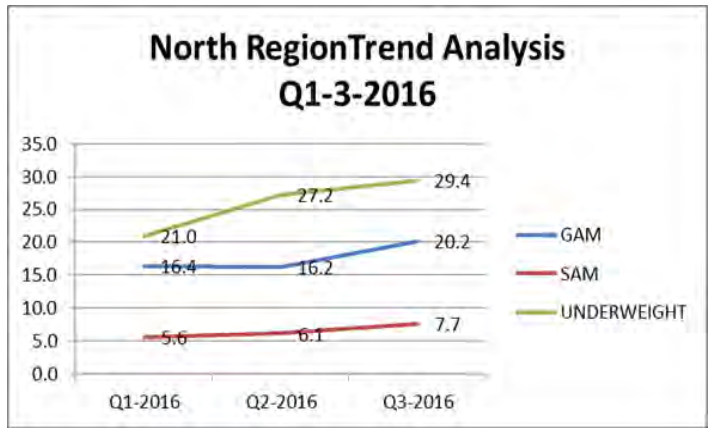
Western Region: There has been a slight increase in GAM and SAM rates from Q1 to Q3. Average GAM rates for Q1-Q3 were 24.2%, 23.0% and 26.6% whilst the average SAM rates were 11.2%, 10.0% and 13.9%, respectively. Ghor province reported the highest average GAM (33.5%) whilst the lowest was reported in Farah (12.2%). The average GAM for Badghis was 26.9% whilst that for Herat was 25.7%. Similarly, Ghor reported the highest average SAM (15.6%) whilst the lowest was for Farah (6.6%). Average SAM rates for Herat and Badghis were 14.8% and 9.7%



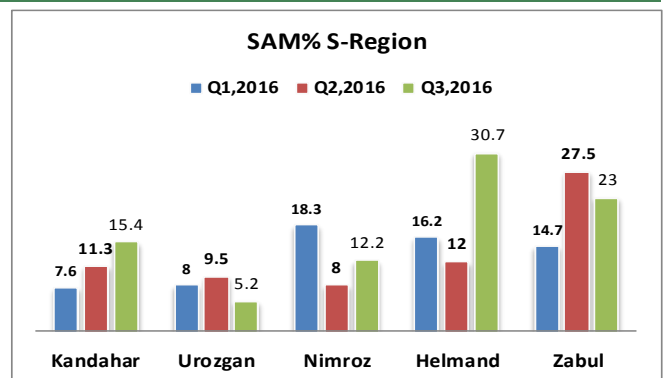
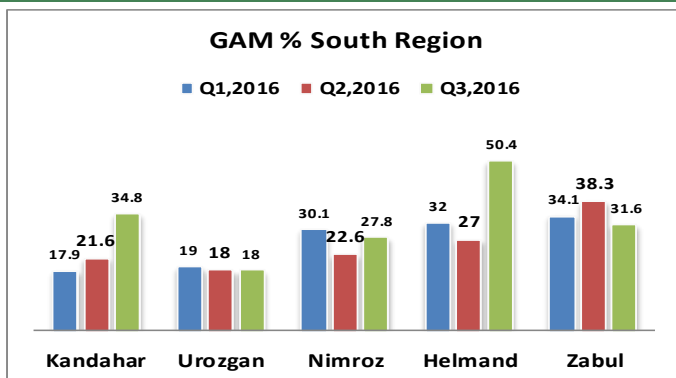
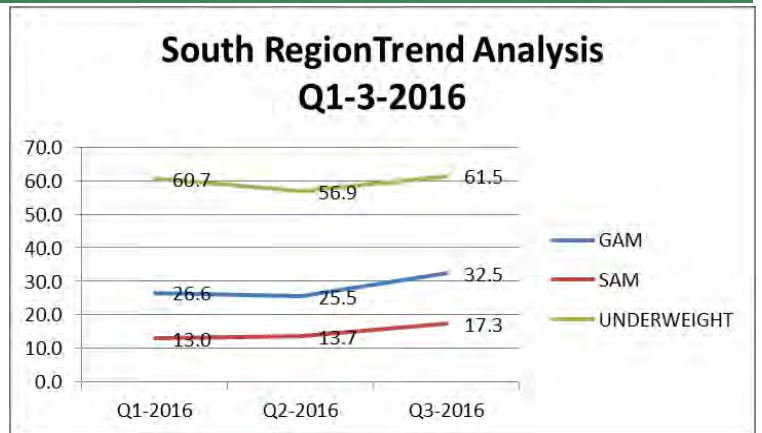
Eastern Region: There has been a significant increase in GAM and slightly on SAM rates from Q1-Q3. Average GAM rates for Q1-Q3 were 17.2%, 20.7% and 25% whilst the average SAM rates were 4.8%, 7.8% and 10.5%, respectively. During Q1-Q3 Nangarhar reported the highest average GAM (29.2%) whilst the lowest was reported in Kunar (13.1%). The average GAM for Nuristan was 21.7% whilst that for Laghman was 19.8%. Average SAM was highest in Nangarhar (11.7%) while the lowest rate was reported in Kunar (4.3%). Average SAM rates for Nuristan and Laghman were 9.0% and 5.8%, respectively for Q1-Q3.



Northern Region: There has been a slight increase in GAM and SAM rates from Q1-Q3. The average GAM rates for Q1-Q3 were 16.4%, 16.2% and 20.2% and the average SAM rates were 5.6%, 6.1% and 7.7%, respectively. Kunduz reported the highest average GAM (31%) whilst the lowest was reported for Balkh (11.7%). The average GAM for Jawzjan was 22.3% and 19.7% for Takhar during the reporting period. Jawzjan reported an average SAM rate of 8% whilst Faryab and Badakhshan reported 7.7% and 7.0%, respectively from quarter 1 to quarter 3.



Southern Region: The Southern region generally reported higher GAM levels compared to other regions, showing a slight increase from Q1-Q3. The average GAM rates for Q1-Q3 were 26.6%, 25.5% and 32.5% whilst the average SAM rates were 13%, 13.7% and 17.3%, respectively. A steep increase was observed in SAM for Helmand, 12% to 30.7% from Q2-Q3. The SAM rate for Zabul decreased from 27.5% to 23.5% from Q2-Q3.

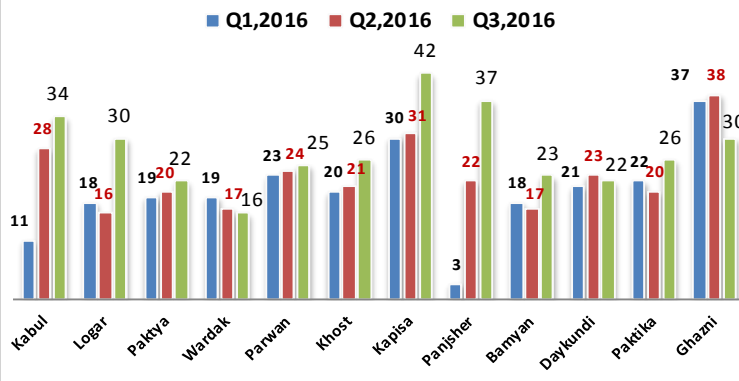


Central Region: There was a significant increase in GAM and a slight increase in SAM rates from Q1-Q3. The average GAM rates for Q1-Q3 were 20.1%, 23.1% and 27.7% whilst the average SAM rates were 7.8%, 8.5% and 9.6%. Ghor reported the highest average GAM (33.5%) whilst the lowest was reported for Farah (12.2%). Ghazni reported the highest mean GAM (35.0) which showed a decreasing trend (37%, 38% and 30% from Q1-Q3 respectively). Panjsher showed the steepest increase in GAM (2%, 22% and 37% from Q1-Q3), whilst Kabul also showed a significant increase across Q1-Q3 (11%, 28% and 34% respectively). The mean SAM for Central region ranged from 7.8 % to 9.6%.

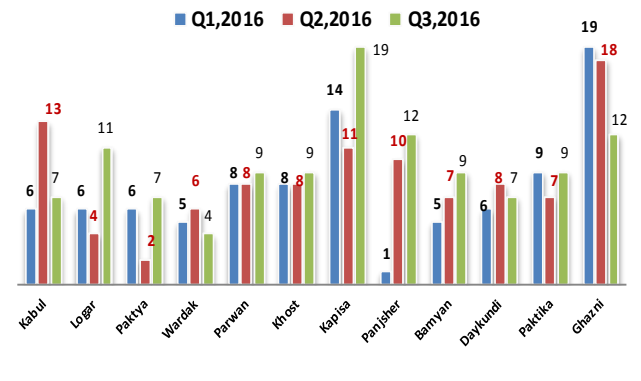
Central Region Trend Analysis Q1-3-2016



GAM % Central-Region



SAM % C-Region



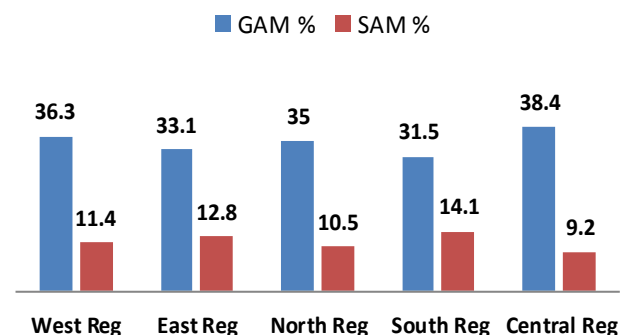
Acute Malnutrition (Community-based): National and Regional Trends

The results below for GAM and SAM levels are from community-based sentinel sites (health posts) which are reported from 24 provinces. During the first, second and third quarters of 2016, GAM was reported at 29.7%, 31.1% and 29.5%, while SAM was reported at 8.4%, 10% and 9.2%, respectively. Efforts to improve the quality of community data have continued, including joint support visits to sentinel sites and regular feedback to stakeholders.

National Community GAM & SAM (MUAC)



Regional GAM & SAM, Q3,2016 (MUAC)



Infant and Young Child Feeding (IYCF)

- ◆ Good IYCF practices play an important role in preventing acute malnutrition
- ◆ Early initiation of breastfeeding decreases neonatal mortality
- ◆ 92% of assessed children under the age of 2 years were breastfed



A woman brought her grandchild for growth monitoring and measurement at a CHC in Kandahar. Photo: WHO/S.Ramo

Results related to IYCF INDICATORS (National Level)		Q3,2016
Total number of assessed children		25,803
Currently Breastfed	% of <2 children with continued breast feeding	92%

Results of Hemoglobin Levels in Pregnant Women

- ◆ The proportion of pregnant women with hemoglobin level < 11 gr/dl was 26% in the 3rd quarter of 2016.
- ◆ The proportion of women with Hb<11 gdl (have pregnancy age =< 12 weeks) was reported 16% during first trimester
- ◆ The proportion of women with Hb<11 gdl in the second and third trimesters was 47% and 37%, respectively

Anaemia: A low hemoglobin (Hb) level is an indication of anaemia. The anaemia levels of 26% for 2nd quarter of 2016 were consistently in the “moderate” levels ($\geq 20\%$ - $\leq 40\%$). Anaemia is associated with increased risks of maternal and child mortality.

Results of hemoglobin levels in pregnant women during first antenatal care (ANC) visit		Q3-2016
Total assessment		32,948
Hb level	Percentage of pregnant women with Hb level < 11 gr/dl	26%
	Percentage of pregnant women (have pregnancy age =< 12 weeks) with Hb level < 11 gr/dl	16%
	Percentage of pregnant women (have pregnancy age 12 to < 24 weeks) with Hb level < 11 gr/dl	47%
	Percentage of pregnant women (have pregnancy age >24 weeks) with Hb level < 11 gr/dl	37%

Birth Outcomes

Low Birth Weight:

The proportion of babies born with low birth weight was at 6% during the 3rd quarter of 2016. Low birth weight (< 2500 gr) is an important factor affecting neonatal mortality and a significant determinant of post-neonatal mortality. Low birth weight infants who survive are at an increased risk of health problems ranging from neuro-developmental disabilities to respiratory disorders.

Neural Tube Defects (NTD):

A total of 77 cases of NTD out of 58,631 assessed children were reported from 32 provinces (NTD data of Zabul and Badakhshan not included this quarter). The rate per 1000 is 1.3 during the current reporting period. NTDs (anencephaly, spina bifida and encephalocel) have a strong association with folic acid deficiency.

Results of indicators related to birth outcomes		Q3, 2016
Number of assessed children		58631
Sex	Total Male	31040
	Total Female	27591
	Male/Female Ratio	1.12
Birth weight	Stillbirths per 1,000 births (Birth Status)	15
	Percentage of birth weight less than 2500 gr	6
	Percentage of birth weight between 2500 - 4000 gr	88
	Percentage of birth weight more than 4000 gr	4.5
Neural Tube Defect (NTD)	Prevalence of NTD per 1,000 births	1.3



Fathers brought their babies to the NNSS site in Mirwais Hospital in Kandahar for measurement and growth monitoring.

Photo: WHO/S.Ramo



A child is measured at a health facility sentinel site in Kandahar city in November 2016. Photo: WHO/S.Ramo

Implication of Findings

- ◆ Trend analysis at the national level shows a slight increase in wasting rates, with the Eastern Region showing the most significant increase (20.7% in Q2 to 31.5% in Q3). There is a need for closer monitoring through population-based surveys for the provinces with steep increases, particularly Nuristan province with rates more than double the previous quarter (19.4% Q2 to 44.4% in Q3)
- ◆ More focus is needed on individual child surveillance, growth monitoring, at health facilities to ensure health workers correctly classify nutrition status and provide appropriate counseling to caregivers for optimum growth
- ◆ Low rates for early initiation of breastfeeding point towards the need for more support for mothers post-delivery to ensure infants receive breast milk within the first hour of delivery
- ◆ High pregnancy anemia and NTD rates show a need for follow up and strengthening of iron and folic acid supplementation during pregnancy to ensure compliance to guidelines
- ◆ High SAM rates at community level need to be followed up with referrals to health facilities to ensure children get assessed and receive Integrated Management of Acute Malnutrition services when required



Left: A child is measured at Mirwais Hospital in Kandahar, a health facility sentinel site for the NNSS.



Right: Midwives review the nutrition surveillance register during a monitoring visit in Kandahar in November 2016. Photos: WHO/S.Ramo

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