

# The burden of malnutrition in Africa

#### Mercedes de Onis

Coordinator

Growth Assessment and Surveillance Unit

Department of Nutrition for Health and
development

WHO/HQ



### Highlights from:

Levels & Trends in Child Malnutrition

UNICEF-WHO-The World Bank Joint Child Malnutrition Estimates





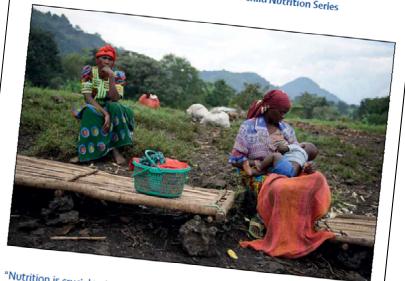




### THE LANCET

#### Maternal and Child Nutrition

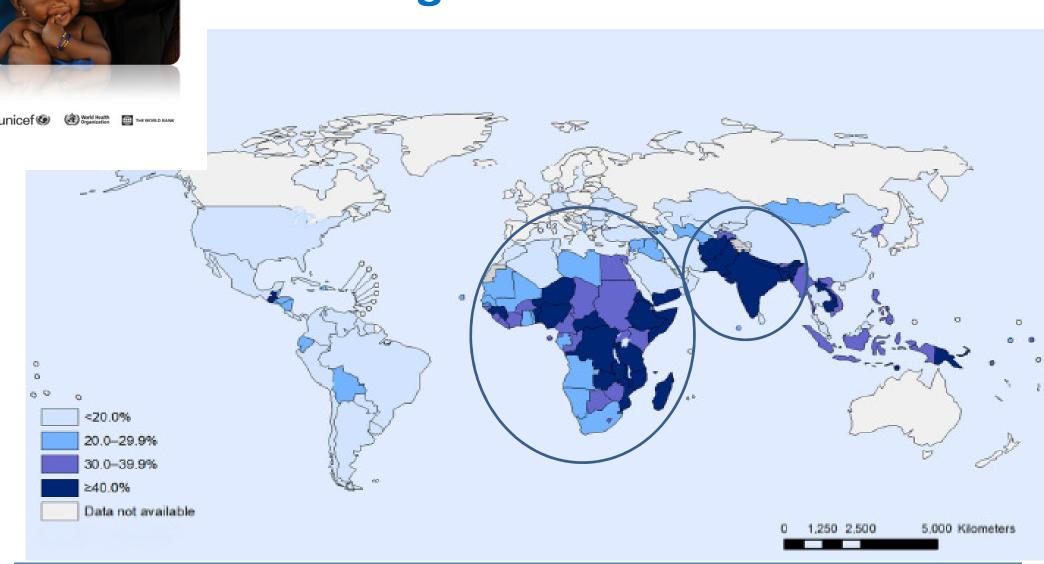
Executive Summary of The Lancet Maternal and Child Nutrition Series



"Nutrition is crucial to both individual and national development. The evidence in this Series furthers the evidence base that good nutrition is a fundamental driver of a wide range of developmental goals. The post-2015 sustainable development agenda must put addressing all forms of malnutrition at the top of its goals"



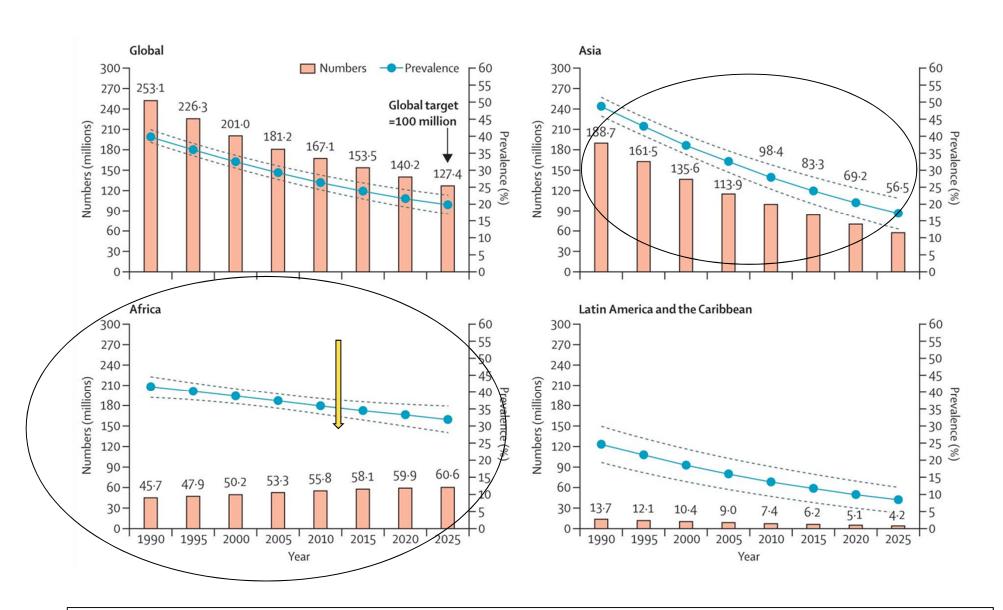
# 165 million children under 5 (2011) stunted growth – 56 million in Africa



Source: UNICEF, WHO, The World Bank. Joint Child Malnutrition Estimates. (UNICEF, New York; WHO, Geneva; The World Bank, Washington, DC; 2012).



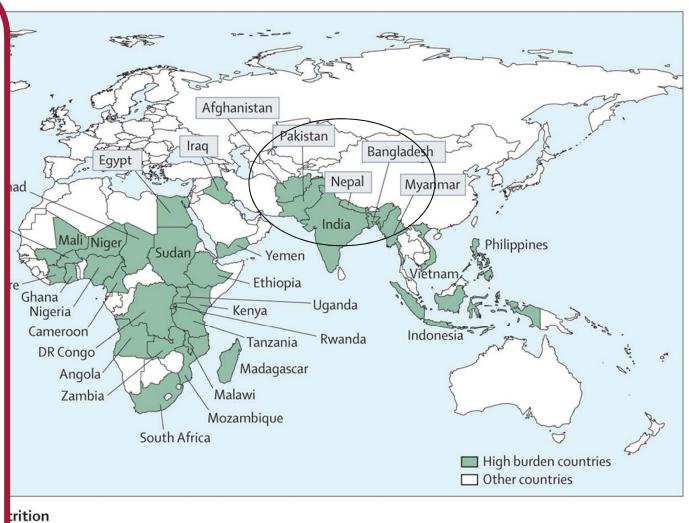
#### rends in prevalence and numbers of stunted childre



**Source**: de Onis M, Dewey K, Borghi E, et al. The World Health Organization's global target for reducing childhood stunting by 2025: rationale and proposed actions. Maternal and Child Nutrition, September 2013.

# Of the 34 countries that account for 90% of the globa burden of malnutrition, 22 are in Africa

Important to note the list excludes countries with very high rates of stunting but small populations: e.g., Benin (stagnant rates at 44%) or Sierra Leone (increasing rates -37.4% in 2008 to 44.9% in 2010)

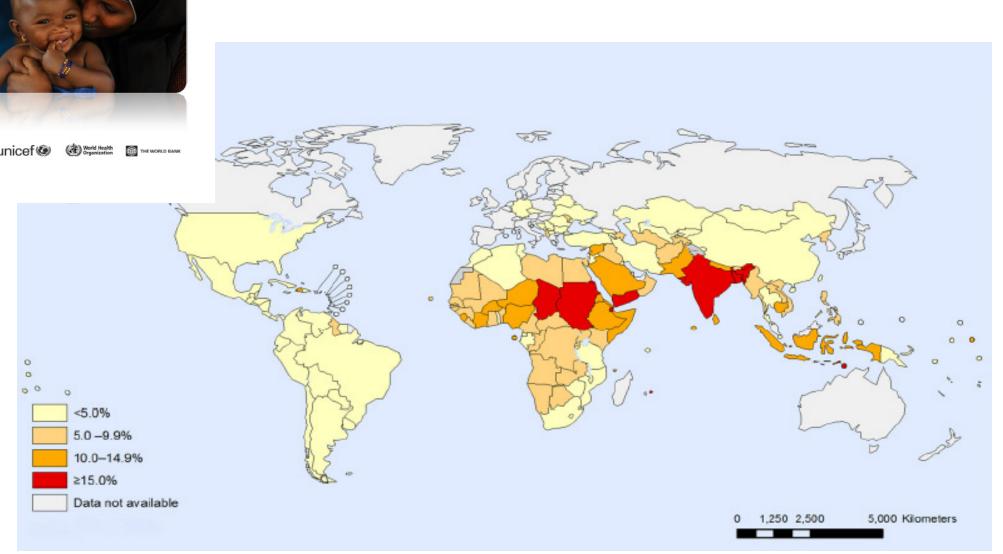








### 52 million wasted children (2011) 13.4 million in Africa



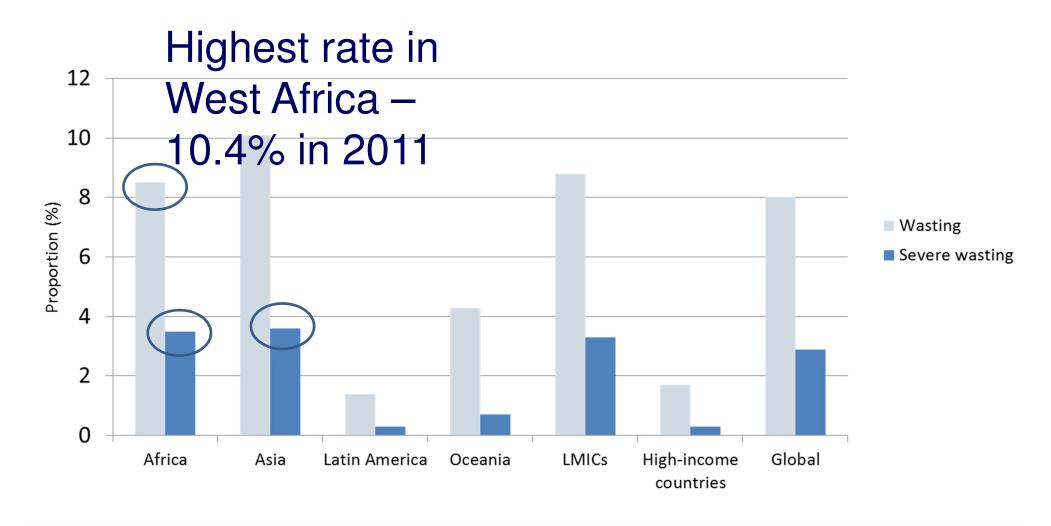
Source: UNICEF, WHO, The World Bank. Joint Child Malnutrition Estimates. (UNICEF, New York; WHO, Geneva; The World Bank, Washington, DC; 2012).



# When Coupled with Infectious Diseases, Wasting Increases Hazard of Death

Weight-for- Length Z-Score	All Deaths HR (95% CI)	Pneumonia Deaths HR (95% CI)	Diarrhoea Deaths HR (95% CI)	Measles Deaths HR (95% CI)	Other Infectious Deaths HR (95% CI)
< -3	11.6	9.7	12.3	9.6	11.2
	(9.8, 13.8)	(6.1, 15.4)	(9.2, 16.6)	(5.1, 18.0)	(5.9, 21.3)
-3 to < -2	3.4	4.7	3.4	2.6	2.7
	(2.9, 4.0)	(3.1, 7.1)	(2.5, 4.6)	(1.3, 5.1)	(1.4, 5.5)
-2 to < -1	1.6	1.9	1.6	1.0	1.7
	(1.4, 1.9)	(1.3, 2.8)	(1.2, 2.1)	(0.6, 1.9)	(1.0, 2.8)
≥ -1	1.0	1.0	1.0	1.0	1.0

# Prevalence of Wasting and Severe Wasting in Children <5 Years Old by UN Regions, 2011



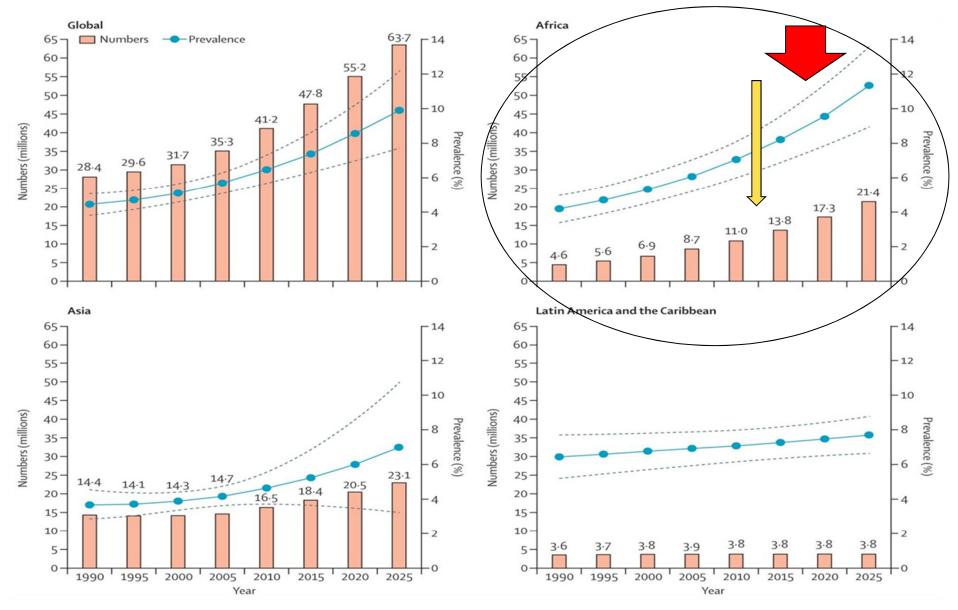


### Malnutrition aiguë en 2013 - Situation inquiétante

	Admissions SAM estimées pour 2013	Admissions SAM attendues pour le 1er trimestre 2013	Admissions SAM réelles pour le 1er trimestre	% admissions SAM par rapport à l'attente pour la période	Admissions SAM réelles jusqu'au mois d'avril 2013
Burkina Faso	120,000	24,000	16,719	70%	18,014
Cameroun	57,616	11,523	12,391	108%	1.5
Chad	126,000	25,200	28,470	113%	40,540
Gambie	5,421	1,084	231	21%	472
Mauritanie	23,901	4,780	2,184	46%	2,447
Mali	125,000	25,000	15,000	60%	21,475
Nigeria	296,950	59,390	51,458	87%	73,393
Niger	376,724	75,345	76,168	101%	100,882
Sénégal	38,968	7,794	2,949	38%	4,419



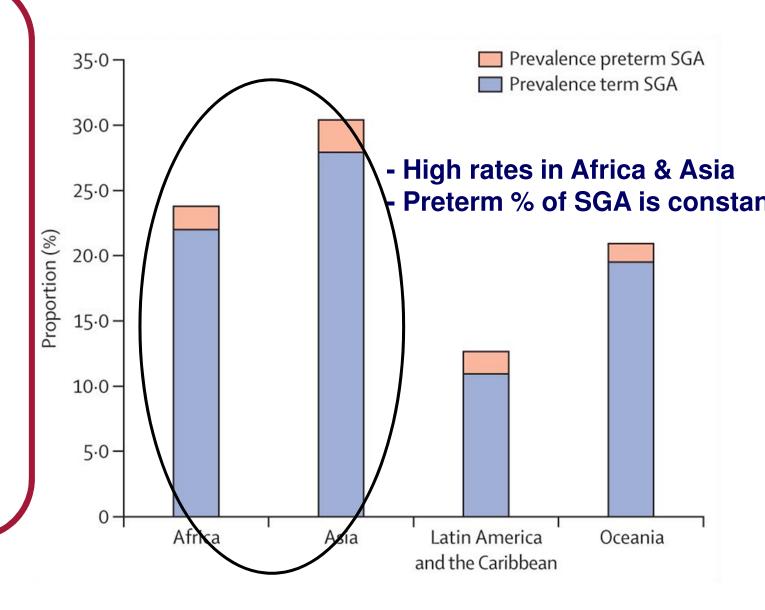
#### Child overweight on the rise





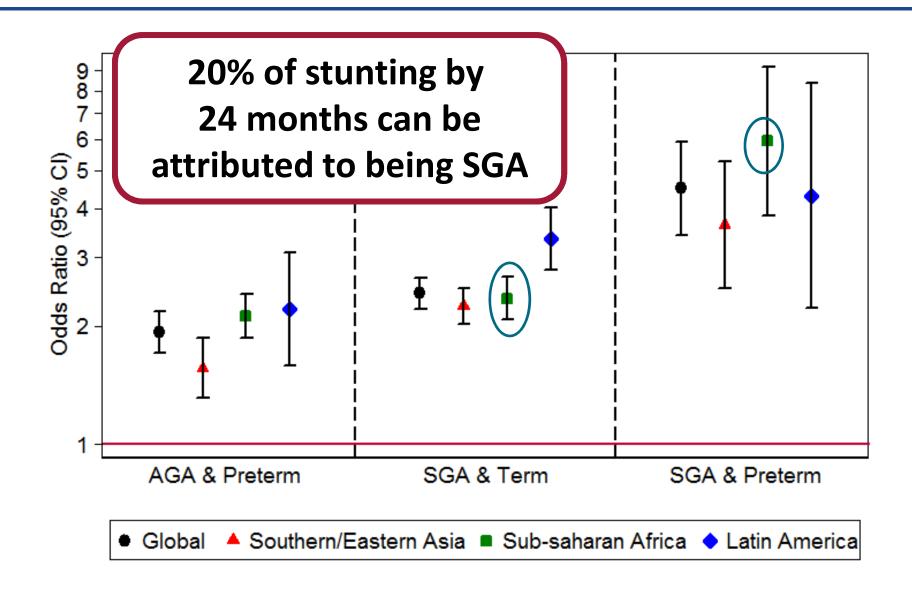
# Child length already compromised at birth Prevalence of SGA births (term and preterm)

**New research:** Relative to children born AGA and term, the ORs of childhood stunting associated with SGA and term and **SGA** and preterm are 2.43 and 4.51, respectively





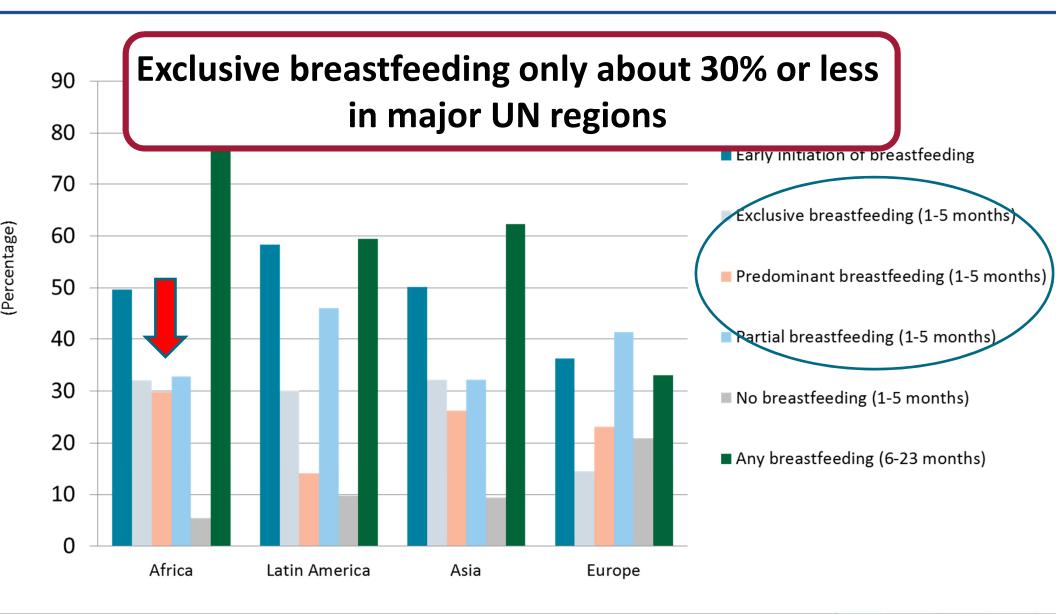
#### **Risk of SGA for Stunting**



# Prevalence of Vitamin A and Iodine Deficiencies, Inadequate Zinc Intake, and Iron Deficiency Anaemia

	deficiency (UIC <100 μg/L)	Zinc deficiency (weighted average of country means)	Iron deficiency anaemia (haemoglobin <110 g/L)	
Children <5 years			Children <5 years	Pregnant women
Serum retinol <0.70 μmol/L				
33.3%	28.5%	17.3%	18.1%	19.2%
41.6%	40.0%	23.9%	20.2%	20.3%
15.6%	13.7%	9.6%	12.7%	15.2%
33.5%	31.6%	19.4%	19.0%	19.8%
14.9%	44.2%	7.6%	12.1%	16.2%
	<0.70 μmol/L  33.3%  41.6%  15.6%  33.5%	Children <5 years         Serum retinol <0.70 μmol/L	Children <5 years  Serum retinol <0.70 μmol/L  33.3% 28.5% 17.3%  41.6% 40.0% 23.9%  15.6% 13.7% 9.6%  33.5% 31.6% 19.4%	Country means)       Children <5 years       Serum retinol <0.70 μmol/L

### Breastfeeding Practices by UN Region During 2000-2010



### Key Messages (1)

High prevalence levels of stunting among children under-five years o age in Africa (36% or 56 million in 2011) – these children have elevated risk of mortality, cognitive deficits and increased risk of adu obesity and non-communicable diseases.

Africa shows rising numbers of stunted children due to population increase and an almost stagnant prevalence of stunting over the past two decades - of the 34 countries that account for 90% of the global burden of malnutrition, 22 are in Africa.

Some African countries (e.g., Ethiopia, Ghana, Mauritania) have had substantial reductions in stunting, but overall, in this region little improvement is anticipated in the coming years if recent trends continue.

### Key Messages (2)

In Africa, an estimated 13.4 million children under-five years of age, or 8.5%, were wasted (W/H <-2SD) in 2011 - these children are at substantial increased risk of SAM and death.

Increasing trends in child overweight in most world regions, not just the developed world. In Africa, the estimated prevalence under-five overweight increased from 4% in 199 to 7% in 2011. This trend is expected to continue.

High rates of intrauterine growth retardation – about 20% o stunting by 24 months can be attributed to being SGA.



### Key Messages (3)

- Deficiencies of essential vitamins and minerals continue to be widespread and have significant adverse effects on child survival and development, as well as maternal health. For most deficiencies Africa has the highest rates.
- Infant and Young Child Feeding Practices need to be improved drastically in Africa ..... and elsewhere.
- Maternal stunting and low BMI increases the risk of fetal growth restriction (SGA). Short maternal stature may lead to obstructed labour and maternal and fetal or neonatal death



### **Key Messages (4)**

Overall, the new evidence strengthens the importance of the critical 1,000 day window during pregnancy and the first two years of life, highlighting the need to act early in pregnancy and even prior to conception.



