

Epidemiology of the double burden of malnutrition in Niger: longitudinal analysis of mother and child nutritional status form 1992-2012

Introduction

Global reviews conducted on double burden of malnutrition (DBM) showed increasing prevalence of overweight and obesity among adolescents and adults in Asia and northern Africa. Niger is often spotlighted for its higher prevalence of acute and chronic malnutrition of children under 5 but less is known on pattern of DBM.

Main objective of this study is to determine current status and evolution of DBM in Niger at mother –child dyad level within the context of multisector nutrition programming targeting mainly reduction of chronic malnutrition.

Materials and Methods

Anthropometric data of 21900 mother and children under 5 from 4 DHS rounds (1992, 1998, 2006 and 2012) were analysed.

DBM is defined at the mother and child pair as the concurrence of child stunting (height for age z score < - 2 SD) and mother overweight/obesity (BMI > 25 kg/m²) and stuntingoverweight as combination of child of HAZ < -2 SD (stunting) and WHZ> 2 SD (overweight/obesity).

Results

In children under 5, the prevalence of chronic malnutrition was stable over the 20 year period, half of them, 44, 6% (43, 8- 45, 3) are stunted while 3% (2,6–3,1) of them were overweight/obese. No sex difference found between boys 3.11 (2, 7 -3, 4) and girls 2, 6 (2, 2-2, 9). Prevalence doubled over the twenty year; 1.91%(1,6-2,2) in 1992- 1998 compared to 3,8 % (3,4-4,2) in 2006-2012. Stingoverweight mean prevalence was 0.7% (0.6-0.8) in under 5 children.

DBM increased with mother education 5.7% (4.7-6.6) with primary school level compared to 3, 4 (3,2-3,7) without schooling.

DBM was higher significantly in urban setting 7, 0(6,3-7,6) vs 2, 6 (2,3- 2,8) in rural areas, higher in the 3 main cites ; Niamey 9,3 % (9, 1- 9, 4); Zinder 4,7(3.8-5.7) and Maradi 4.0%(3.2-4.7). DBM higher with wealth quintile ; 7.7% (7-8.5) in the richest, 3.5 % (2, 7-4.4) in the medium and 3,1% (2, 5- 3,7) in the lowest wealth quintile. The prevalence increased in household with accessed to clean water , prevalence of DBM were 3 times higher in HH with access to potable water 7% (6.4-7.7) than HH without access 2.5% (2.3- 2.8) and within HH with toilet facility 6, 9% (6,2- 7,3) than HH without 2.7% (2,5- 3).

Conclusion

From 1992 to 2012, the double burden of Malnutrition doubled owing mostly to increase in mother overweight/obesity despite stagnation of child stunting.at HH level, DBM increased despite relative decrease of child stunting in well living families.Current Multisector Nutrition policy prioritizing more on reduction of child stunting need to be revised to account new pattern of mother and child malnutrition.

Country

Niger

Institution

Ministry of Health

Author: Dr ELH HALLAROU, Mahaman (MOH/Niger)

Co-author: Dr DOUDOU HALIDOU, Maimouna (WFP-Niger)

Presenter: Dr ELH HALLAROU, Mahaman (MOH/Niger)

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