

**Methods:** Data derive from pregnant women and their newborn infants from a USAID-supported birth cohort study in Banke district of Nepal. GA was assessed using three separate methods between 18 to 26 weeks of pregnancy. A total of 717 women were assessed using USG, 712 with reported LMP, and 614 women with SFH. Paired t-tests were used to assess differences in GA estimated by LMP or SFH compared to USG. A concordance correlation coefficient (CCC) was calculated to quantify agreement among the three methods.

**Results:** The median GA using USG was 275 days, 278 days by LMP ( $p < 0.0003$  compared to USG) and 268 days by SFH ( $p < 0.0000$  compared to USG). The concordance correlation coefficient for GA estimates for LMP and US was 0.35, and between SFH and USG was 0.40. Percent women with GA estimates at delivery within  $\pm 7$  days comparing LMP to USG were 18%, and 77% within  $\pm 14$  days. In contrast, the percent women with GA estimates within  $\pm 7$  days at delivery comparing SFH and USG were 19%, but only 62% within  $\pm 14$  days.

**Conclusions:** There were small but significant differences in the median GA estimates obtained by the three methods. The degree of agreement between LMP and SFH were poorly concordant. No significant differences in accuracy between the measures were observed. However, GA estimates were found to be more accurate than SPH in LMP compared to USG (within  $\pm 14$  days). This finding suggests that LMP should be used instead of SFH in the absence of USG.

**Keywords:** gestational age estimates, pregnant women

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**FACTORS ASSOCIATED WITH LOW BIRTH WEIGHT IN RURAL MALI USING BIRTH WEIGHT RECALLED FROM MOTHER'S MEMORY OR BIRTH WEIGHT REPORTED FROM A HEALTH CARD. (2013)**

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**Background and objectives:** It is widely known that low birth weight (LBW) is associated with increased risk of neonatal death and impaired cognitive development. However, in developing countries, estimating LBW can be challenging due to the absence of official documents. Moreover, causes of LBW are multifactorial. The objectives of the present work are: (1) to compare the profiles of mothers reporting birth weight from memory vs.

mothers who provide a document indicating birth weight in rural West Mali; (2) to identify the determinants of LBW depending on the method birth weight is reported.

**Methods:** In 2013, we conducted a cross-sectional survey among randomly selected mothers of 12-42 months old children ( $n = 1254$ ) in the district of Kayes, Mali. We collected birth weights during the survey from either an official health card (HC) or from mother's memory (MM), as well as potential determinants of LBW such as socioeconomic characteristics, pregnancy details, mother's anthropometry and household food insecurity. Definition of LBW was a weight under 2500g. Relationships between LBW and potential determinants were assessed using logistic regressions.

**Results:** The prevalence of HC-LBW was significantly lower than the MM-LBW prevalence (11% vs. 16%,  $p = 0.04$ ). Mothers reporting birth weight from memory were less educated ( $p < 0.01$ ), poorer ( $p = 0.03$ ) and attended fewer prenatal visits ( $p < 0.01$ ) than mothers who reported birth weight from HC.

Factors associated with MM-LBW included mother's profession, skilled person who attended delivery and household food insecurity (respectively:  $p < 0.01$ ,  $p < 0.01$ ,  $p = 0.03$ ). Factors associated with HC-LBW were mother's education, antenatal care and place of delivery ( $p < 0.01$ ). House occupancy status was associated with both HC-LBW and MM-LBW ( $p < 0.01$ ), while mother's anthropometry was not, neither with HC-LBW nor MM-LBW.

**Conclusions:** LBW prevalence estimates and determinants depend on the method used to report birth weight data (HC vs. MM); the method of reporting is itself highly influenced by socioeconomic characteristics of mothers.

**Keywords:** Memory reported birth weight, documented birth weight, low birth weight, Rural Mali.

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**EFFECTIVENESS OF A CULTURALLY APPROPRIATE LIFESTYLE MODIFICATION PROGRAMME IN IMPROVING BODY COMPOSITION IN URBAN SRI LANKAN WOMEN WITH PREDIABETES**

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**Background and objectives:** Lifestyle interventions are the keystone of prevention and treatment for non-communicable diseases. Effectiveness of interventions rests on cultural relevance. Increased fat mass (FM) and abdominal obesity has been suggested as a possible cause for increased cardiometabolic risk



# **IUNS**

## **21st International Congress of Nutrition**

Buenos Aires, Argentina, October 15–20, 2017

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P.O. Box, CH-4009 Basel (Switzerland)  
e-ISBN 978-3-318-06192-5

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