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## **Upgrade on the nutritional transition in Bolivia**

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**DIETS OF MALIAN AND MOROCCAN PEOPLE LIVING IN THEIR HOME COUNTRIES AND IN FRANCE AND ITS ASSOCIATION WITH ECONOMIC STATUS**

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**Background and objectives:** Little is known about changes due to migration both within a country (from rural to urban) and outside a country (from home country to host country). The present study focussed on dietary diversity of Malian and Moroccan people living in their home countries and in France and its association with economic status.

**Methods:** Cross-sectional surveys were conducted in 2010 among Malian and Moroccan households living in urban Ile-de-France (IdF) and in rural and urban areas of Mali (the area of Kayes and Bamako respectively) and Morocco (the Souss and Casablanca respectively). In each area, 300 households were surveyed. Diet was assessed using an Individual Dietary Diversity Score (IDDS) based on 12 food groups consumed/24h. Economic characteristics were collected to classify households into 5 ordered groups.

**Results:** The mean IDDS was 7.2 for Malians and 7.7 for Moroccans. Compared to urban areas, the IDDS was better in both rural Mali (7.7 vs. 6.4,  $p < 0.01$ ) and Morocco (7.8 vs. 7.3,  $p < 0.01$ ). In IdF, the mean IDDS was 7.5 for Malians and 8.2 for Moroccans. Compared to rural Moroccans, Moroccans in IdF had greater IDDS ( $p < 0.01$ ). IDDS increased with economic status in rural and urban Mali (6.8 to 9.1,  $p < 0.01$  and 6.0 to 7.1,  $p < 0.01$ , respectively) and in rural and urban Morocco (6.5 to 9.0,  $p < 0.01$  and 6.5 to 8.3,  $p < 0.01$ , respectively) but decreased for Malian people living in IdF (8.0 to 7.1,  $p = 0.04$ ).

**Conclusions:** In home countries, IDDS was better in rural compared to urban areas. Whilst it increased with economic status in Mali and Morocco, it decreased for Malian people living in IdF. Dietary diversity and its association with economic status depend on living areas and might depend on the stage of the nutrition transition as well.

**Key words:** Dietary diversity, economic status, home and host countries.

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**UPGRADE ON THE NUTRITIONAL TRANSITION IN BOLIVIA**

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**Background and objectives:** Latin America is a region that experienced the paradox of economic growth together with social instability in the past decade. This has contributed to rising levels of overweight and the abandonment of traditional diets. The objective of this study is to upgrade the evidence regarding the trends in overweight and obesity in women of childbearing age, and to describe ecologically disparities in food availability within the country.

**Methods:** Secondary analysis of nationally representative Bolivian Demographic and Health Surveys (DHS) 1994, 1998, 2003 and 2008 to upgrade overweight and obesity trends in women of childbearing age. Datasets have been made available by Measure DHS. Previous estimations of household food availability have been updated with data from the nationally representative Household Surveys of 2005, 2008 and 2009, available publicly through the Bolivian National Statistic Institute.

**Results:** DHS survey data revealed a steady raising trend in levels of overweight and obesity among women in childbearing age (20–45 years), reaching 50% if both combined by 2008 and revealing disparities. The increment in overweight levels was more pronounced if women were poor, uneducated or dwellers of rural areas. Underweight remained below 2%, although it is concentrated in women between 15–30y. Household Survey data highlighted the “within-country” disparities in food availability that could be ecologically associated to the observed nutritional status. Rural households systematically recorded lower amounts of food available. Households in lower income quintiles recorded higher availability for potatoes and cereals.

**Conclusion:** This overview highlights that Bolivia is further into the nutrition transition, with half of the women being overweight. Further, underscores the importance of including prevention of weight gain in future Bolivian public health nutrition policies, together with the promotion of traditional diets, mostly based on foods of plant origin.

**Key words:** Bolivia, Nutrition Transition, Women, Demographic and Health Surveys.