

score of an individual's dietary intake when assessing compliance with food-based dietary guidelines. Moreover, family life plays an important role in developing eating behaviors and dietary intake in children and adolescents. This study was aimed to assess the associations between DQI and family meals in adolescents included in a comprehensive therapy for obesity.

Methods: Multi-intervention approach (diet, physical activity and psychological support in a family-group-based treatment-EVASYON) was implemented within a one-year intervention in 13-to-16-year-old overweight or obese Spanish adolescents. A total of 67 adolescents, 31 females, were included in the present study, whose energy intake and BMI had been measured at baseline. In the EVASYON study, diet quality index was calculated from food frequency questionnaire at baseline, 6 and 13 months of follow-up. Family meal was assessed from dietary history reported from parents at baseline, 2, 6 and 13 months of treatment. In the present study, we evaluate the diet quality index and family meals after 6 months of intervention. Data are shown as means and SD for continuous variables and frequency and percentages for categorical variables). U-Mann Whitney and Chi-squared tests were performed. Signification level was established at $p < 0.05$. All statistical analyses were performed by using SPSS STATISTICS v.20 (IBM Corp., New York, NY, USA, 2010).

Results: 67.2% adolescents had family meals and showed DQI score of 71.16 ± 8.94 after 6 months. Males had lower DQI values than females, meanwhile similar percentage of family meals was observed (69.4% vs 64.5%). However, there was only a significant relationship between DQI and family meal in females ($p = 0.036$).

Conclusions: It is important to create a comfortable atmosphere in order to reach a better diet quality index in adolescents with obesity. Males need to be instructed in food and health related issues. The efforts in obese adolescents should be directed to really achieve healthier behavioral changes, including family, in order to improve their DQI.

Keywords: Adolescents, family-involvement, family-group-based, multi-intervention approach, diet quality index

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INCENTIVE VALUE OF CASH IN A CONDITIONAL CASH TRANSFER PROGRAM FOR MATERNAL AND CHILD HEALTH AND NUTRITION IN MALI

⁽¹⁾Le Port, Agnes; ⁽²⁾Zongrone, Amanda; ⁽³⁾Savy, Mathilde; ⁽⁴⁾Fortin, Sonia; ⁽⁵⁾Kameli, Yves; ⁽⁶⁾Diatta, Ampa D; ⁽⁶⁾Sessou, Eric; ⁽⁷⁾Kodjo, Niamke Ezoua; ⁽⁸⁾Martin-Prével, Yves; ⁽⁹⁾Ruel, Marie.

⁽¹⁾MSc, PharmD, PhD. Poverty Health and Nutrition Division (PHND). International Food Policy Research Institute (IFPRI). Senegal.; ⁽²⁾MPH, PhD. Poverty, Health and Nutrition Division (PHND). International Food Policy Research Institute (IFPRI). Senegal.; ⁽³⁾MSc, PhD. UMR204 'Nutripass' - IRD-UM-Supagro. Institut de Recherche pour le Développement (IRD). France.; ⁽⁴⁾MSc. UMR204 'Nutripass' - IRD-UM-Supagro. Institut de Recherche pour le Développement (IRD). France.; ⁽⁵⁾UMR204 'Nutripass' - IRD-UM-Supagro. Institut de Recherche pour le Développement (IRD). Mali.; ⁽⁶⁾MSc. Poverty, Health and Nutrition Division (PHND). International Food Policy Research Institute (IFPRI). Senegal.; ⁽⁷⁾MSc. World Food Program (WFP). Bamako. Mali.; ⁽⁸⁾MSc, MD, PhD. UMR204 'Nutripass' - IRD-UM-Supagro. Institut de Recherche pour le Développement (IRD). France.; ⁽⁹⁾MSc, PhD. Poverty, Health and Nutrition Division (PHND). International Food Policy Research Institute (IFPRI). USA.

Background and objectives: The "Cash for Nutrition Awareness" (CNA) component of the community-based intervention "Santé Nutritionnelle à Assise Communautaire à Kayes" (SNACK) was implemented in Mali by the World Food Program (WFP-Mali) in 2013 for a duration of 3 years. The conditional cash transfer program aimed at improving child nutrition outcomes by increasing maternal and child attendance at community health centers (CHCs) through the distribution of a small amount of cash (~\$3.00-\$12.00 USD), during antenatal visits, delivery, vaccination and monthly growth monitoring visits starting at 6 months, covering the "1000 days" period (i.e. from pregnancy to 23 months of age of the child). The objective of this study was to explore the incentive value of the cash for beneficiaries to attend CHCs.

Methods: We conducted a process evaluation two years after the start of the program, using a purposive sample of 12 CHCs and their catchment area. We collected data using semi-structured interviews with frontline workers ($n = 76$) and mothers ($n = 24$), semi-structured observations of cash distributions and services delivered in 11 CHCs (twice for each CHC, $n = 22$), and free listing with groups of up to 10 mothers gathered outside the CHCs ($n = 24$ groups). Data were analyzed using thematic analysis along the program impact pathway (from service delivery to beneficiaries' receipt and use of cash).

Results: We identified various implementation issues, including difficulties for program workers to supply the cash to the CHCs due to a challenging implementation environment (namely long travel distances to deliver cash to the CHCs and high workloads). In addition, some mothers returned home empty-handed, as the total amount of cash available was often insufficient to pay all women attending the CHC in the same day. In some CHCs, cash was also delivered on different days than the days they provided services. Beneficiaries identified maternal and child health

as their main motivation to attend activities at the CHCs and cash only as a benefit, mainly used to buy food.

Conclusions: Implementation issues and a potentially insufficient amount of cash may have decreased the incentive value of the cash to increase attendance at CHCs. The research was funded by UNICEF, EC (IFAD) and CGIAR (A4NH).

Keywords: implementation research; conditional cash transfer; health attendance; children; nutrition

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A GLOBAL FOOD FORTIFICATION DATA REPOSITORY: ENSURING THE AVAILABILITY OF DATA FOR PROGRAM MONITORING, ACCOUNTABILITY, ADVOCACY, AND STRATEGIC DECISION MAKING

⁽¹⁾Luthringer, Corey L.; ⁽²⁾Codling, Karen; ⁽³⁾Garrett, Greg S.;

⁽⁴⁾Martinez, Homero; ⁽⁵⁾Pachón, Helena; ⁽⁶⁾Gorstein, Jonathan.

⁽¹⁾MPH. Food Fortification. Global Alliance for Improved Nutrition. USA.; ⁽²⁾Iodine Global Network. Thailand; ⁽³⁾MSc. Director. Food Fortification. Global Alliance for Improved Nutrition. Switzerland;

⁽⁴⁾MD, PhD. Micronutrient Forum. Micronutrient Initiative.

Canada; ⁽⁵⁾Food Fortification Initiative; ⁽⁶⁾PhD. Executive Director & Associate Professor. Iodine Global Network & Department of Global Health. University of Washington. USA.

Background and objectives: While multiple agencies maintain databases with a variety of programmatic data, there is a need for greater alignment and harmonization to achieve more uniform global monitoring of the state of, and progress in fortification; programmatic decision making and accountability; and advocacy. A global repository of key program-related indicators for multiple food vehicles (maize flour, oil, rice, salt, wheat flour) will help fill this niche and will provide a resource for governments, donors, and implementing agencies to make data-driven decisions about fortification policies and programs.

Methods: We implemented a process that entailed reviewing existing databases, developing a core set of indicators, and outlining a process for continuous collection and aggregation of updated data. These processes and outcomes were reviewed at each stage through a consultative process implemented in a food fortification community of practice comprising over thirty organizations/actors operating at national and global levels [the Global Fortification Technical Advisory Group (GF-TAG)].

Results: A set of core indicators covering aspects related to demand, supply, and the enabling environment for fortified staple foods were defined based on data available within existing databases. Examples include the status of fortification legislation, regulations, monitoring, compliance, and coverage. Proxy indicators were also crafted where the ideal indicator is not available across all countries and fortified food vehicles. Data stewards were identified for each food vehicle to serve as gatekeepers to ensure optimal data inclusion and quality. A repository prototype was developed with assistance from Camber Collective and TenPoint7

that includes existing data from the core indicators within an interactive data visualization platform and was publically launched in June 2017. Data stewards streamlined data collection processes with countries and technical partners to ensure timely data updates and inclusion of additional indicators over time to address user needs.

Conclusions: As food fortification programs are scaled up in countries, it is imperative to track progress and establish standard indicators to assess performance, impact and sustainability. This effort has underscored the need for broader improvements in fortification data, including improvements in data collection that require continued collaboration across all GF-TAG member organizations.

Keywords: Food Fortification, Data Collection, Data Repository, Evidence-Based Decision Making, Data Visualization

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SUPERMARKET SHOPPING AND NUTRITIONAL OUTCOMES: A PANEL DATA ANALYSIS FOR URBAN KENYA

⁽¹⁾Demmler, Kathrin Maria; ⁽²⁾Ecker, Olivier; ⁽³⁾Qaim, Matin.

⁽¹⁾PhD. Agricultural Sciences. RTC; ⁽²⁾PhD. Research Fellow. Development Strategy and Governance Division. International Food Policy Research Institute. Washington, DC. USA.; ⁽³⁾Prof. International Food Economics and Rural Development. University of Goettingen. Germany.

Background and objectives: Overweight and obesity are growing health problems in many developing countries. Rising obesity rates are the result of changes in people's diets and lifestyles. Income growth and urbanization are factors that contribute to these changes. Modernizing food retail environments may also play a certain role. For instance, the rapid spread of supermarkets in many developing countries could affect consumer food choices and thus nutritional outcomes. However, concrete evidence about the effects of supermarkets on consumer diets and nutrition is thin. A few existing studies have analyzed related linkages with cross-sectional survey data. To our knowledge, we are the first to use panel data in this setting.

Methods: Panel data from households and a total of 1,199 adult individuals was collected in urban Kenya in the years 2012 and 2015. Panel regression models with individual fixed effects plus other controlling factors were employed.

Results: Our results show that shopping in supermarkets significantly increases adults' body mass index (BMI). Regarding impact pathways we did not find that supermarkets contribute to net increases in total calorie consumption. However, our panel data models revealed significant shifts in dietary composition. Supermarket shopping contributes to a sizeable decrease in energy consumption from unprocessed staples and from fresh fruits and vegetables. We found significant increases of supermarket shopping on energy consumption from dairy, vegetable oil, processed meat products (sausages etc.), and highly processed foods (bread, pasta,



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