
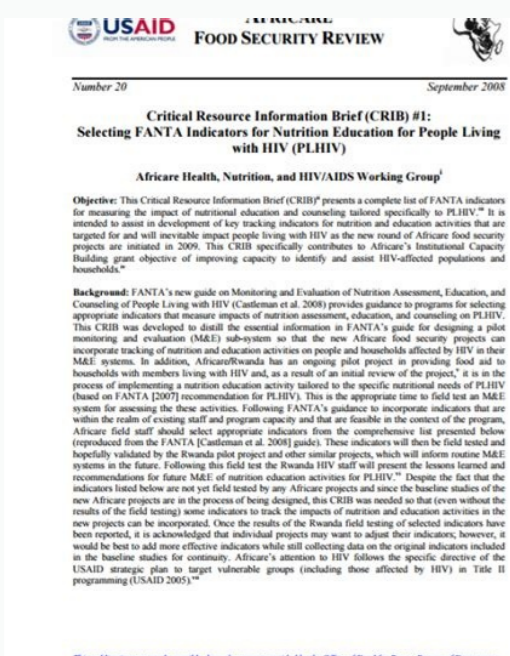


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Public Health Nutrition, 13(12), 2010-2018

doi:10.1017/S13688801000145X

Proxy measures of household food consumption for food security assessment and surveillance: comparison of the household dietary diversity and food consumption scores

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Submitted 21 September 2009; Accepted 14 April 2010; First published online 6 July 2010

Abstract

Objective: To provide an overview of the household dietary diversity score and the food consumption score, two indicators used for food security assessment and surveillance, and compare their performance in food security assessments in three countries.

Design: Cross-sectional cluster sampling design using an interview-administered structured questionnaire on household food security, including household-level food group consumption measured over 1 d and 7 d.

Setting: Survey data are from Burkina Faso, Lao People's Democratic Republic (Lao PDR) and northern Uganda.

Subjects: Households in Burkina Faso (*n* 3640), Lao PDR (*n* 3913) and northern Uganda (*n* 1956).

Results: Spearman's correlation coefficients between the scores were 0.73 in Burkina Faso, 0.65 in Lao PDR and 0.55 in northern Uganda. Prevalence-adjusted kappa coefficients showed substantial strength of agreement in two countries. The proportion of agreement between the two scores ranged from 85% in Lao PDR to 65% in northern Uganda. Dietary profiles based on food group consumption using score tertiles were comparable. Rankings of the most food-insecure areas within a country corresponded well in northern Uganda and Burkina Faso but not in Lao PDR. Both indicators showed moderate correlations with other proxy measures of food security.

Conclusions: The comparative study highlights the similarities and differences between the food consumption and household dietary diversity scores. Similar classification of the most food-insecure areas within sub-national levels was obtained. The choice of indicator for food security assessment and surveillance will vary depending on user needs.

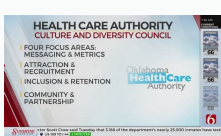
Keywords
Household food security
Household food access
Dietary diversity
Food consumption

Many organizations involved in food security assessments use qualitative instead of quantitative measures of dietary intake. Quantitative dietary assessment techniques use data collected primarily at individual level to calculate dietary energy and nutrient intakes, which are then compared with nutrient requirements. Quantitative dietary survey methods are difficult to implement, particularly in developing countries, due to cost, logistics and other considerations such as respondent burden⁽¹⁾. Qualitative measures of household food consumption, such as dietary diversity and food consumption scores, are attractive as the information required for their construction is less

time-consuming and costly to collect than that for quantitative dietary intake methods.

Both the FAO and the World Food Programme (WFP) use information on dietary diversity as one element to inform food security analysis; however, the organizations use different data collection methods and analytical strategies⁽²⁻⁴⁾. The FAO uses a 1 d household dietary diversity score (HDDS) based on guidelines produced by the Food and Nutrition Technical Assistance Project⁽⁵⁾ and the WFP uses a food consumption score (FCS). Both the HDDS and the FCS have been validated in different countries as proxy measures of household per capita

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Maximum nutritional diversity is found in the group

- (1) Fungi
- (2) Animalia
- (3) Monera
- (4) Plantae

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dead link] ^ "BioProtein Production" (PDF). ISBN 978-92-5-106768-0. ^ english@peopledaily.com.cn (July 24, 2007). 83 (4): 495-514. "Maggots and kelp must be on the menu to curb global malnutrition". 2011. Bibcode:2014Natur.506...7K. Craig (2009). "Food, Culture, and Human Health in Alaska: An Integrative Health Approach to Food Security". Deutsche Welle. Two types of insurances are available:[227] claim-based insurances and index-based insurances. A further advantage of index insurance is that payments based on a standardized and indisputable index also allow for a fast indemnity payment. The World Food Programme (WFP) is an agency of the United Nations that uses food aid to promote food security and eradicate hunger and poverty. Hermans, E. The organization attempts to serve the purpose of making a "contribution to ensuring food stability, not just in an individual country but also to address food shortages in the region and the world". However, the links between food loss and waste reduction and food security are complex, and positive outcomes are not always certain. ^ www.gmo-compass.org. 13 August 2020. ^ Barrett, C. ^ FAO at 75 - Grow, nourish, sustain. Archived from the original on 2016-08-06. Impact of technologies on food security and poverty alleviation in Cambodia: designing research processes. ^ "The bushmeat market in Kisangani, Democratic Republic of Congo: implications for conservation and food security" (PDF). The right to adequate food. R. Pritchard, H. There is evidence of food security being a concern many thousands of years ago, with central authorities in ancient China and ancient Egypt being known to release food from storage in times of famine. ^ a b Abbate, Lauren (July 24, 2017). 23 February 2010. ^ Petrikova Ivica, Hudson David (2017). ^ The State of Food Security and Nutrition in the World 2020. In brief. S. Salud Pública de México. PMID 20110467. Retrieved 12 July 2017. Even with the overpumping of its aquifers, China is developing a grain deficit.[79] When this happens, it will almost certainly drive grain prices upward. doi:10.1002/jsfa.8530. Retrieved 2020-04-04. www.bridge.ids.ac.uk. Food Policy. Plant Biotechnology Journal. www.fao.org. Bibcode:2007CICh...83..495F. Governments often keep prices of basic grains at such artificially low levels that subsistence producers cannot accumulate enough capital to make investments to improve their production. April 3, 2007. Common GM crops include cotton, maize, and soybeans, all of which are grown throughout North and South America as well as regions of Asia.[187] Modified cotton crops, for example, have been altered such that they are resistant to pests, can grow in more extreme heat, cold, or drought, and produce longer, stronger fibers to be used in textile production.[188] One of the biggest threats to rice, which is a staple food crop especially in India and other countries within Asia, is blast disease, which is a fungal infection that causes lesions to form on all parts of the plant.[189] A genetically engineered strain of rice has been developed so that it is resistant to blast, greatly improving the crop yield of farmers and allowing rice to be more accessible to everyone.[190] Some other crops have been modified such that they produce higher yields per plant or that they require less land for growing. ^ "Rome Declaration and Plan of Action". Nuffield Council on Bioethics "Genetically modified crops: the ethical and social issues." 1999. C.; Howes, M. "Is livestock production prepared for an electrically paralysed world?". Urban areas mainly consume bushmeat because they cannot afford other types of meat.[53] Feed the Future In 2010, the government of the United States began the Feed the Future Initiative.[54] The initiative is expected to work on the basis of country-led priorities that call for consistent support by the governments, donor organizations, and the civil society to accomplish its long-term goals.[54] World Summit on Food Security The World Summit on Food Security, held in Rome in 1996, aimed to renew a global commitment to the fight against hunger. The indemnity payment could be automated, further reducing transaction costs.[relevant?] Basis risk is a major disadvantage of index-based insurance. This has resulted in failure to properly grow crops as well as strong opposition to the unknown practices.[182] The image shows a protest taking place in Dublin, Ireland against the use of genetically modified crops

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