

EVALUATION OF RESTO INGESTA IN A UNIVERSITY RESTAURANT IN BELÉM-PA

Matheus Kayky Pereira de Souza¹, Rafael da Silva Chaves², Letícia da Silva Oliveira³, Karen de Fátima Saraiva Guimarães Silva⁴, Verlaine Suênia Silva de Sousa⁵, Caroline Marry Vaz Lavareda⁶, Lais Pinon de Carvalho⁷, Patrícia Cristina Moura Vieira⁸ and Xaene Maria Fernandes Duarte Mendonça⁹

ABSTRACT

The leftover-intake is the ratio between the food scraps left on the trays/plates by the users and the amount of food produced, expressed as a percentage. This measure is used to implement actions to rationalize and reduce waste. The objective of this study was to analyze the leftover-intake index in a Food and Nutrition Unit (UAN) of a University Restaurant (RU) in Belém-PA, which serves about 6,500 meals/day. For 18 days, between the months of November and December 2023, the preparations and food scraps returned by customers were weighed. The data were analyzed to calculate the percentage of remainder-intake and the remainder per user in grams, using Google(R) Spreadsheets to tabulate the results. The average percentage of leftovers was 8.29%, with an average of 40g of waste per person. The preparations with the highest waste were rice with chicken (11.59%) and carreteiro rice (10.32%). The average percentage of leftovers found is within the recommended range (up to 10%), and the per capita waste (40g) is also in accordance with the literature (15g to 45g). However, the preparations of rice with chicken and carreteiro rice showed wastage values higher than the limit of 10%. The results indicate that there are still adjustments to be made, although not all of them can be resolved in the short term.

Keywords: Food Services, Collective Food, Waste, Food.

INTRODUCTION

Aiming at user satisfaction, the Food and Nutrition Units (UANs) have increasingly sought different menu options and approaches according to the growing demand for well-prepared and attractive meals. The leftover-intake represents the ratio between the leftover

¹ Federal University of Pará – Pará

² Federal University of Pará – Pará

³ Federal University of Pará – Pará

⁴ Federal University of Pará - Pará

⁵ Federal University of Pará – Pará

⁶ Federal University of Pará – Pará

⁷ Federal University of Pará

⁸ Federal University of Pará

⁹ Federal University of Pará – Pará



returned to the tray/plate by customers and the amount of food and preparations produced, expressed as a percentage. The records of these quantities serve as a basis for the implementation of measures to rationalize and reduce waste, as well as the optimization of productivity. In this aspect, the objective of this study was to analyze the remainder-intake index in a UAN in Belém-PA.

METHODOLOGY

This is a quantitative, descriptive and cross-sectional study, developed in a UAN of a University Restaurant (RU), where approximately 6,500 meals/day are served for lunch and dinner. 18 days of the menus for the months of November and December 2023 were evaluated. *The Gastronorms* (NGs) used in the preparations were weighed; the trash cans in the pantry area used for the disposal of food scraps were identified, and two others for the disposal of food peels and disposables. First, the total in kg of food produced was quantified, after the end of the distribution of the meals, the food scraps returned to the customers' tray were weighed. After data collection, the calculations of the preparations served, the percentage of leftover-intake and the remaining intake per user were carried out according to the literature. The data were tabulated in the Google Chrome extension, Google Sheets(R).

RESULTS AND DISCUSSION

The average percentage of leftover intake was 8.29%. When evaluating the per capita remainder intake, the average obtained was 40g. The percentages of leftovers were higher for the preparations, rice with chicken (11.59%) and carreteiro rice (10.32%). The average percentage of leftover intake found in the study is within the recommended by the references, which is up to 10%. As for the per capita remainder-intake, the data researched is also in accordance with the literature (15g to 45g). The values found for the preparations, rice with chicken and carreteiro rice corroborate with the values of the remains expressed in kg and exceed the expected limit of 10%. In this panorama, food waste is a theme that is not restricted only to Food and Nutrition Units, for example, the report: *The Traces of Food Waste: Impacts on Natural Resources*, by the Food and Agriculture Organization of the United Nations - FAO, 1.3 billion tons of food are wasted in the annual period. Therefore, the food waste expressed in the study is an aggravating factor because it violates the conceptual principle of Food and Nutrition Security, which is the realization of everyone's right to regular and permanent access to quality food, in sufficient quantity, without compromising access to other essential needs, since the food when dumped in the trash



becomes organic waste. The environmental issue should also be highlighted, as the Food and Agriculture Organization of the United Nations - FAO, revealed that food loss and waste generate between 8% and 10% of global greenhouse gas emissions. The methane that results from decomposition has an even greater impact than carbon dioxide. From this study, it was noted the relevance of implementing measures to reduce this waste of UAN attendees, whether in the alert to consume consciously, and also about educational projects associated with Nutrition professionals, Food and Nutritional Security and the effects of Food Insecurity and conscious eating, respecting the individuality of the body.

CONCLUSION

The evaluation of the rest of the intake at the UAN was carried out satisfactorily, as recommended in the literature. However, the leftover-intake should be an adequate instrument not only for the control of food waste and/or costs, but also as an indicator of the quality and quantity of the meal served, making it possible to define the preference of the users, in addition to the acceptance of the menus offered. In this way, the values found demonstrate that there are still flaws in the production and/or distribution process, which need to be repaired, even if they are not attainable in the short term.



REFERENCES

1. ABREU, E. S.; SPINELLI, M. G. N.; ZANARDI, A. M. P. Gestão de unidades de alimentação e nutrição: um modo de fazer. São Paulo: Metha, 2003.
2. BRASIL. Ministério da Saúde. Secretaria de Atenção à Saúde. Departamento de Atenção Básica. Política Nacional de Alimentação e Nutrição / Ministério da Saúde. Secretaria de Atenção à Saúde. Departamento de Atenção Básica. – Brasília: Ministério da Saúde, 2012.
3. FERREIRA, J. A. et al. Avaliação da sobra limpa e resto ingesta de um CEINF em Campo Grande-MS. Ensaios e Ciência: C. Biológicas, Agrárias e da Saúde, v. 16, n. 1, 2015.
4. FAO. Desperdício de Alimentos tem consequências no clima, na água, na Terra e na biodiversidade [Internet]. 2017 [acesso em 10 abr 2017]. Disponível em <http://www.fao.org.br>. Acesso em: 12 nov. 2024.
5. FOOD AND AGRICULTURE ORGANIZATION (FAO). Food Wastage footprint: Impacts on natural resources. Roma, 2013.
6. IANISKI, V. B.; IANISKI, L. B.; VIEIRA, E. L. ANÁLISE DO ÍNDICE DE RESTO-INGESTA EM UMA UNIDADE DE ALIMENTAÇÃO E NUTRIÇÃO. Salão do Conhecimento, v. 1, n. 1, 2015.
7. MACHADO, C. C. B. et al. Avaliação do índice de resto ingesta de uma unidade de alimentação e nutrição institucional de Anápolis-GO. Ensaios e Ciência: C. Biológicas, Agrárias e da Saúde, v. 16, n. 6, 2015.
8. NASCIMENTO, Silvia Panetta. Desperdício de alimentos: fator de insegurança alimentar e nutricional. Segurança Alimentar e Nutricional, Campinas, SP, v. 25, n. 1, p. 85–91, 2018. Disponível em: <https://periodicos.sbu.unicamp.br/ojs/index.php/san/article/view/8649917>. Acesso em: 13 nov. 2024.
9. PENSAR. COMER. CONSERVAR – Diga não ao desperdício. Disponível em: <http://www.thinkeatsave.org/po/> Acesso em 01 de Outubro de 2016.
10. SILVA, A.M.; SILVA, C. P.; PESSINA, E. L. Avaliação do Índice de resto-ingesta após campanha de conscientização dos clientes contra o desperdício de alimentos em um serviço de alimentação hospitalar. Rev. Simbiologias. v. 3, n. 4, p. 43-56, jun, 2010.