

Behavioral Drivers of Food Choice in Eastern India

Investigators: Matty Demont (PhD), Marie Claire Custodio (MBA), Jhoanne Ynion (MSc), Arindam Samaddar (PhD), Rosa Paula Cuevas (PhD), Anindita Ray (Chakravarti) (PhD), Suva Mohanty (PhD)

Key Takeaways

- Despite participation in a nutrition behavior change communication program, available food budget largely conditioned food choice of low- and middle-income households.
- Low- and middle-income households in eastern India predominantly consume diets high in starch and low in fruits and vegetables.
- Tradition was a strong driver of food choices amongst rural households. In contrast, urban households emphasized nutrition when making food choices.
- Dietary diversity could be improved through the implementation of targeted nutrition-sensitive interventions, and this project provided evidence for potential entry points at consumer level.

Objectives

The overall project objective was to provide a thorough understanding of the current drivers of food choice of households of low- and middle-income classes in both urban and rural settings in eastern India. This project tested new behavioral drivers that may influence food choices of the target population after participation in tailored nutrition-sensitive interventions. It also assessed the ex-ante impact of those nutrition-sensitive interventions on diets and nutrition outcomes of low- and middle-income classes in eastern India.

Background

Eastern India is experiencing a rapid nutrition transition amid high rates of poverty. Access to healthy diets varies widely among urban and rural consumers and by income. At the household level, gender influences food choice decision-making, with consequences for the nutritional status of all members of the household. In this context, a systems approach to understanding food choice can shed light on this transition and its implications for nutrition

and health outcomes, thereby improving the design of interventions. Evidence generated by this study will help policymakers, home science practitioners, food product developers, and nutritionists in making nutrition-sensitive interventions more effective in achieving nutrition security and in improving the health of the poor in eastern India as well as in similar contexts.

Methods

This study took place in the states of Odisha and West Bengal in Eastern India. Consumer surveys and expert elicitation workshops with nutritionists, health experts, and home economists were conducted to develop a food choice decision-making framework for this region and context. The framework was used to guide collection of information on (i) food choice and consumption behavior and (ii) awareness of, attitudes toward, and demand for cooking and eating quality, nutritional, and health attributes of food and nutrition-sensitive interventions. The information from the workshops was corroborated through focus group discussions and household surveys.

Behavioral choice experiments using an innovative tablet application called the “Food Choice Application” were conducted to test the effects of gender, behavioral change communication, and income on food choices for the household. In these experiments, households (e.g. husband and wife) were asked to plan their weekly meals, first individually and then jointly.

Results

The consumer survey revealed that breakfast, lunch, and dinner are the main eating occasions of middle- and low-income classes in urban and rural districts of the two study sites, West Bengal and Odisha. In both sites, about 30% of households surveyed also consumed morning and afternoon snacks with afternoon snacking more common among the study population. Diets of low- and middle-income households remain starch-based, particularly for breakfast and snack occasions. Relative to other food groups, the study households consumed fewer vegetables and fruits. The importance of diet in obtaining nutrition was acknowledged less by rural consumers.

A total of 192 households in rural and urban West Bengal participated in the experiments with the tablet application.

Sessions were randomly assigned to a treatment group or a control group. The ‘treatment sessions’ had households exposed to a behavioral change communication (BCC) broadcast featuring a famous Indian nutritionist who provided insights into how households in West Bengal can improve their diets and dietary patterns to improve their health status. Households sometimes traded off taste for nutritional and health attributes, particularly after exposure to the BCC on healthier diets. Men tended to spend a higher portion of their given budget on food as their amount unspent was smaller than their spouses’ savings. The more the household was constrained by budget, the more consumers tended to prioritize basic food like starchy dishes and pulses over other food groups resulting in lower dietary diversity. In contrast to women, men tended to display similar food choice behavior; however, after household consensus, this emphasis on starch and pulses was reduced. Large differences were found when comparing urban and rural West Bengal households. Rural households tended to spend more on starchy dishes, vegetables and pulses, while urban households invested more in non-vegetable dishes (chicken, mutton, pork, beef, fish, egg, seafood, etc.) and dairy at the expense of vegetables and pulses.

More Information

- Cuevas R, De Guia A, Demont M. (2017). “Developing a framework of gastronomic systems research to unravel drivers of food choice.” *International Journal of Gastronomy and Food Science*, 9:88–99. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5632960/>
- Demont M., Custodio, M.C., Ynion, J., Samaddar, A., Cuevas, R., Ray (Chakravarti), A. & Mohanty, S.K. 2019. “What affects households’ food choice in West Bengal?” *Geography and You*, 19(24):26–30. <https://www.geographyandyou.com/wp-content/uploads/2019/11/135-GnY-15-30-June-2019.pdf>
- Samaddar, A., Cuevas, R.P., Custodio, M.C., Ynion, J., Ray (Chakravarti), A., Mohanty, S.K. & Demont, M. 2020. “Capturing diversity and cultural drivers of food choice in Eastern India.” *International Journal of Gastronomy and Food Science*, 22:100249. <https://www.sciencedirect.com/science/article/pii/S1878450X20301268>
- Cuevas, R.P., Custodio, M.C., Ynion, J., Samaddar, A. & Demont, M. 2020. “Gastronomic systems research.” *Gastronomy and Food Science*. Galanakis, C.M. & Wang, E., eds., Amsterdam, The Netherlands: Elsevier, in press. <https://www.elsevier.com/books/gastronomy-and-food-science/galanakis/978-0-12-820057-5>
- Custodio, M.C., Ynion, J., Cuevas, R.P., Samaddar, A., Ray (Chakravarti), A., Mohanty, S.K. & Demont, M. “Expert elicitation database capturing diversity and cultural drivers of food choice and nutritional implications in eastern India.” *Data in Brief*, in press.
- **Open Access Data** - https://dataverse.harvard.edu/dataverse/IRRI_DFC
- **Project Page** - <https://driversoffoodchoice.org/research/project-descriptions/behavioral-drivers-of-food-choice-in-eastern-india/>

This research has been funded by the Drivers of Food Choice (DFC) Competitive Grants Program, which is funded by the UK Government’s Foreign, Commonwealth & Development Office and the Bill & Melinda Gates Foundation, and managed by the University of South Carolina, Arnold School of Public Health, USA; however, the views expressed do not necessarily reflect the UK Government’s official policies.