

FOOD ENVIRONMENTS AND CHILD NUTRITION AMONG CIRCULAR MIGRANT FAMILIES WORKING IN THE BRICK KILNS OF BIHAR, INDIA

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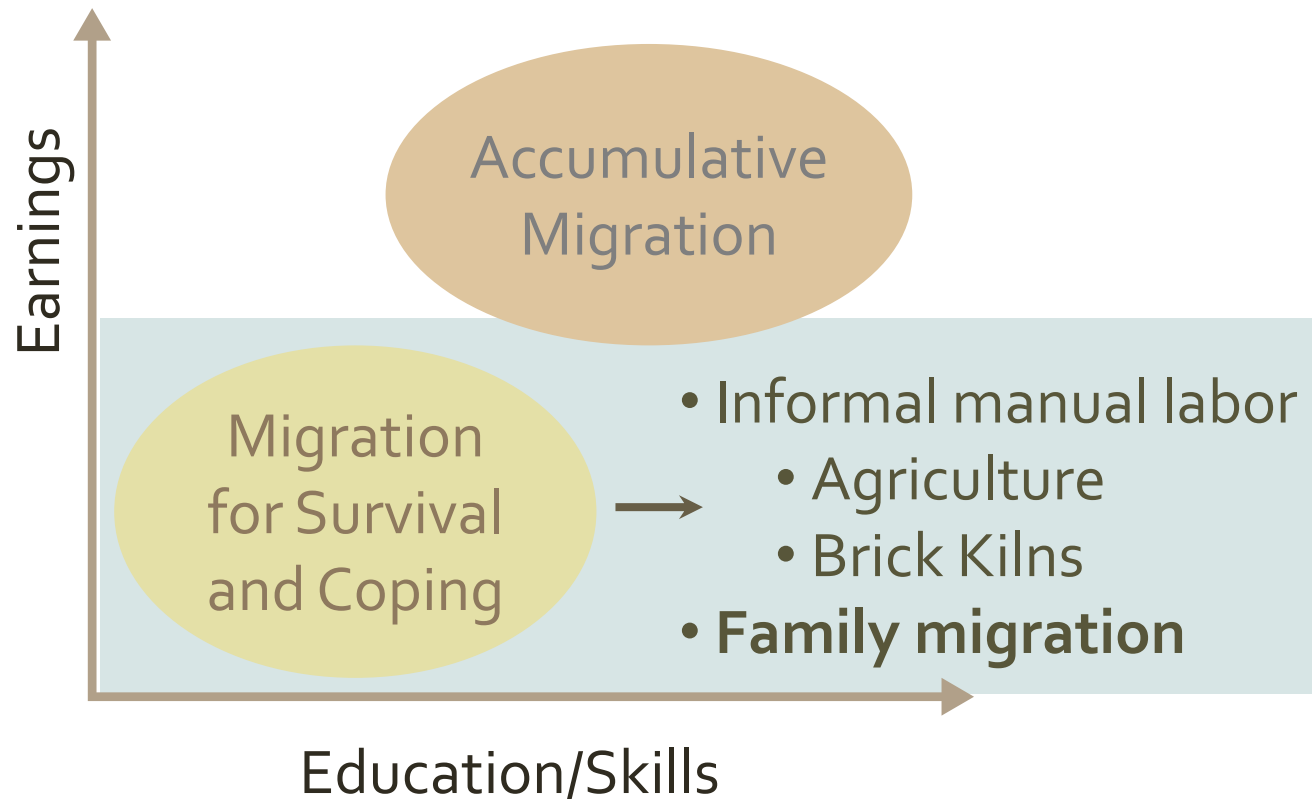
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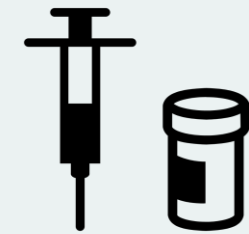


Photo by: Reshma Roshania

Circular Migration and Child Nutrition



Potential Effects on Nutrition



Deshingkar P, Farrington J. A Framework for Understanding Circular Migration. Circular migration and multilocational livelihood strategies in rural India 2009. p. 1-36.

Research Objective

Explore **child nutrition status** and **food environment** among **circular migrants**

- **State of Origin**
- **Child Age at First Migration**

METHODS



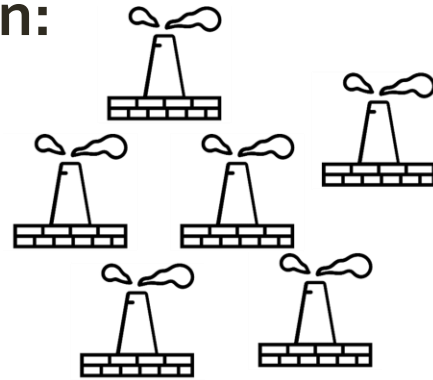
Study Design: Quantitative Component

- **Timeline:** June 2018, February 2019
- **Eligibility Criteria:** Circular migrant mother who migrated with child under 3 years of age to kiln

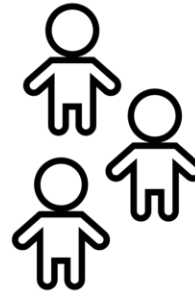
- **Sampling Design:**



Strata: 38
districts of Bihar



Clusters: 18
randomly selected
brick kilns per
district

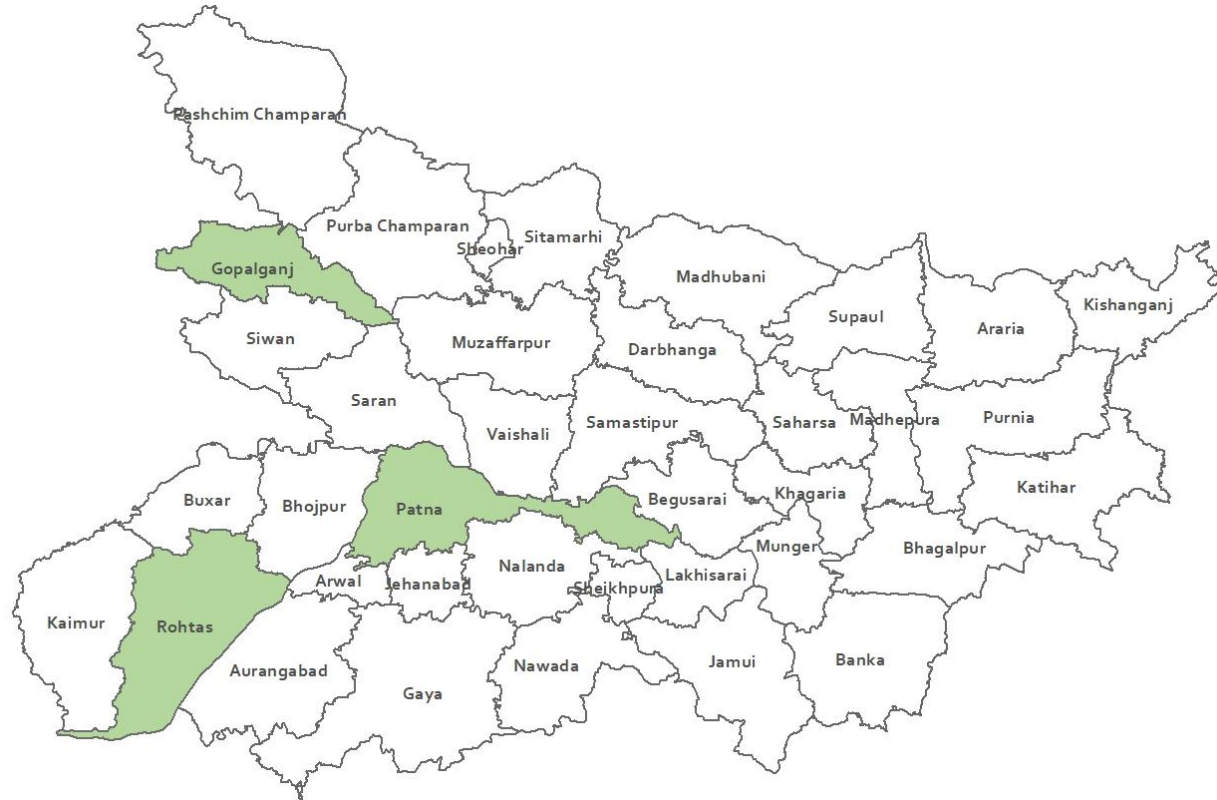


3 children under 3
of randomly
selected migrant
households per kiln

- **Sample Size:** 1,470 children under 3

- **Data Collection:**
 - Household Survey
 - Child Anthropometry
- **Outcomes:**
 - Primary:
 - Stunting
 - Wasting
 - Secondary:
 - Food Security (FIES)
- **Statistical Analyses**
 - Descriptive, bivariate, ordinal logistic regression (SAS 9.4)
 - Complex survey design

Study Design: Qualitative Component



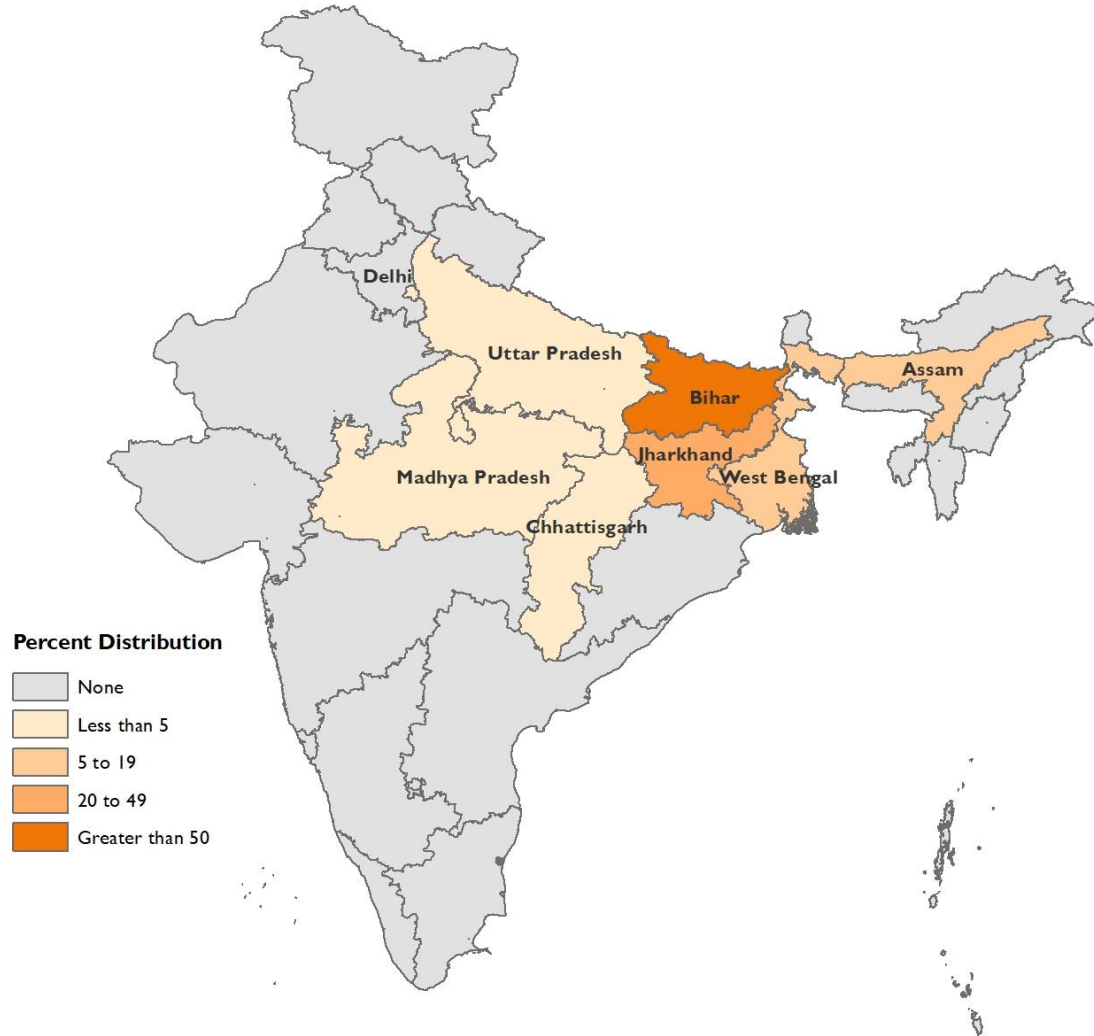
- **In-depth interviews**
 - Migrant mothers of young children (11)
 - Migrant fathers of young children (6)
- **Focus group discussions (2)**
 - Migrant women
- **Key informant interviews (8)**
 - Brick kiln owners/managers
 - Labor contractors
- Thematic analysis in MAXQDA 2018

RESULTS

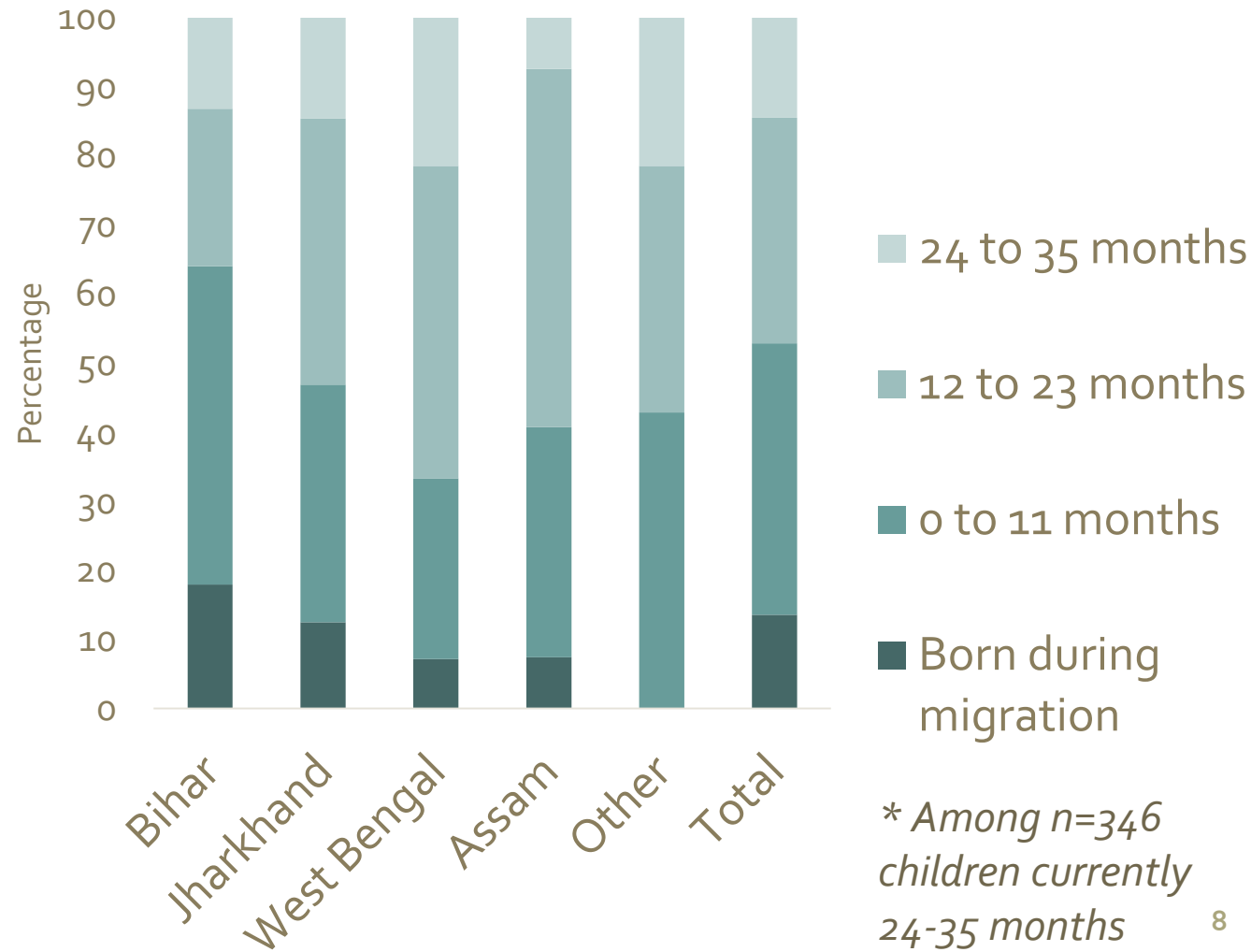


Circular Migrant Origin & Child Age at First Migration

State of Origin Distribution



Child Age at First Migration by Origin*

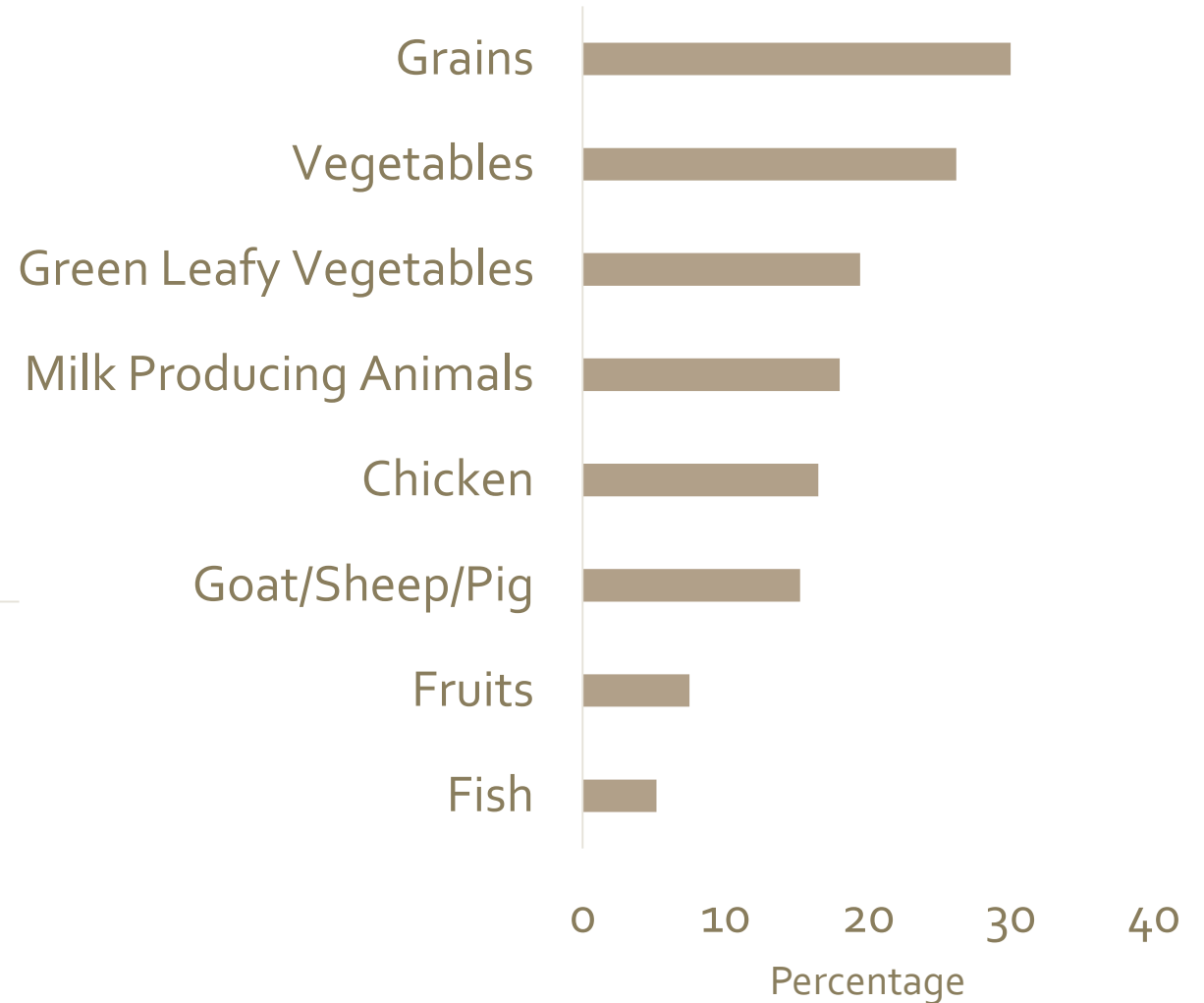


Agricultural Participation among Circular Migrants

Primary Occupation at Home Village by Origin

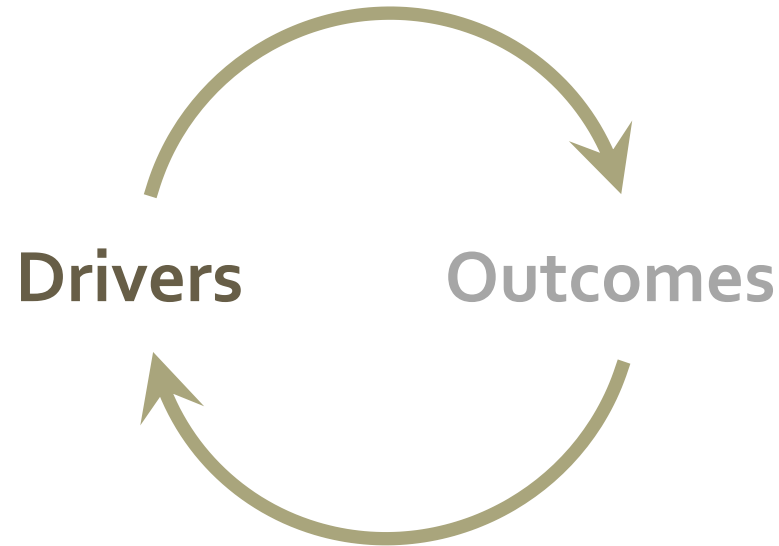


Food Production at Home Village



Agricultural Drivers and Outcomes of Circular Migration

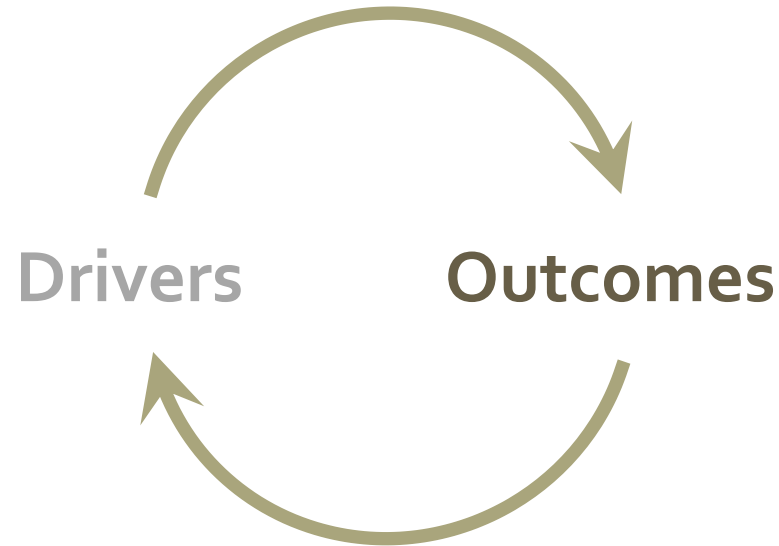
'In our land, there's no water. If we had water, then this many people would not come to the chimney from Ranchi. The water will be there until Holi, after that it will dry up from the rivers, ponds and wells. Only where there's a little bit of water do we plant wheat and vegetables. Otherwise we have a world full of land.'



'We earn, we eat for 6 months, then we go back home. Then we take our earnings and use them towards our fields. Then after 6 months in the season, we can go anywhere and we can work.'

Agricultural Drivers and Outcomes of Circular Migration

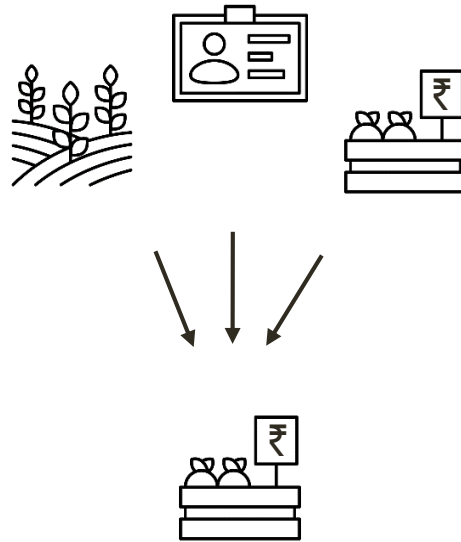
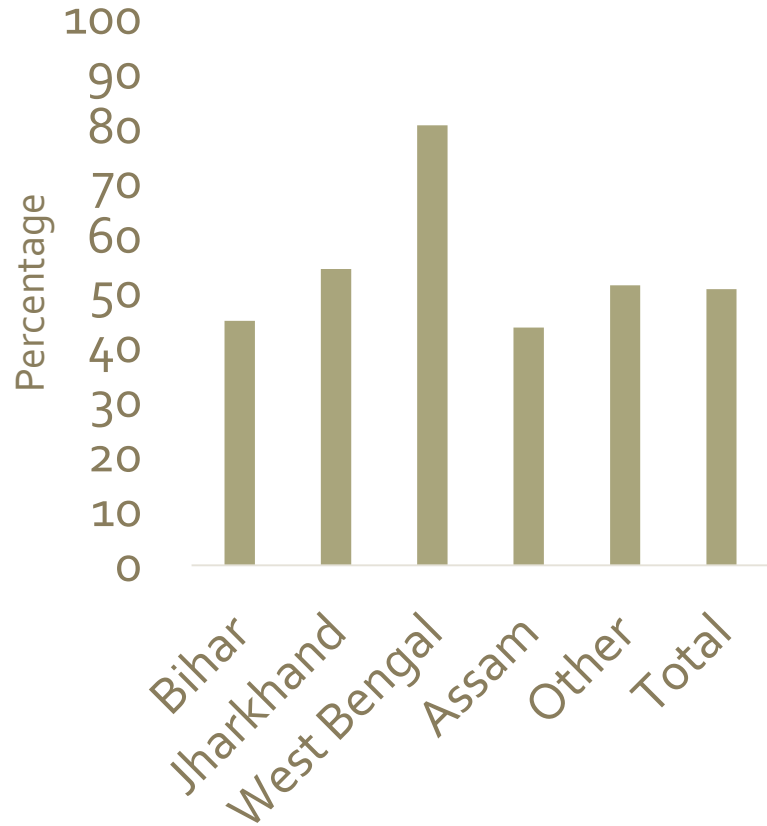
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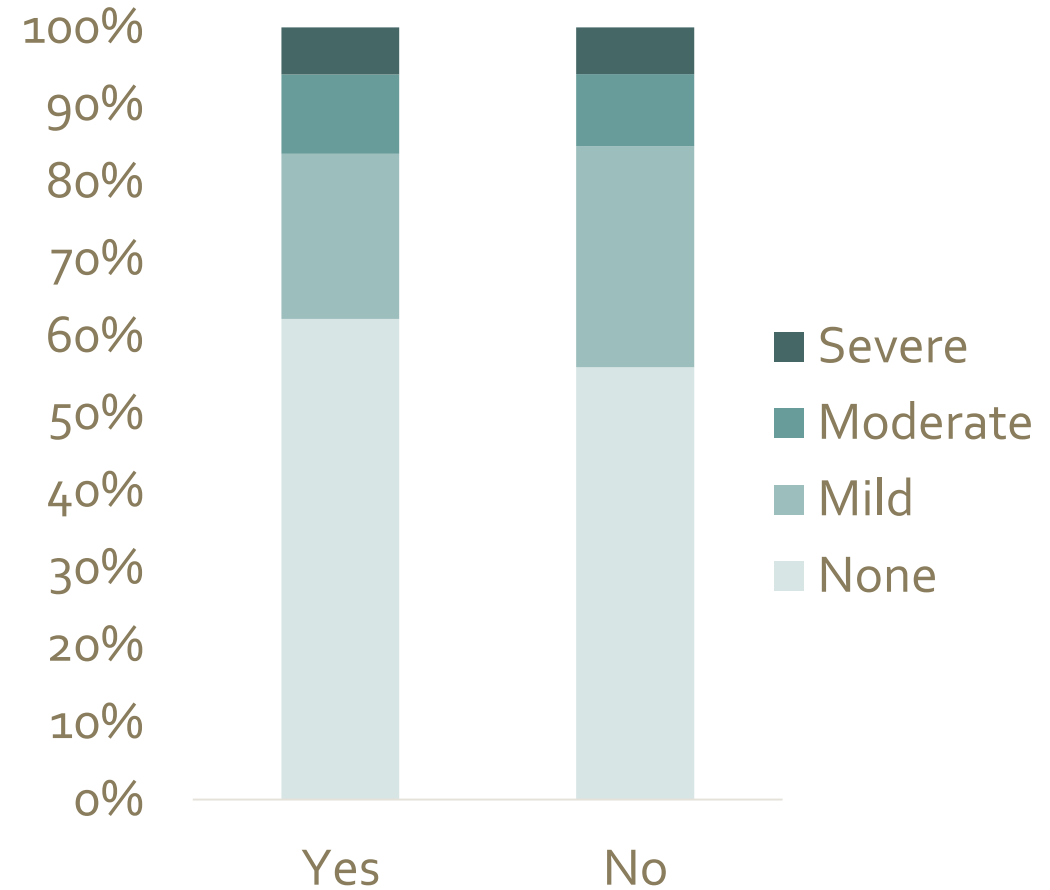
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Changes in Food Environment: Non-Market Sources

Public Distribution System Utilization at Origin

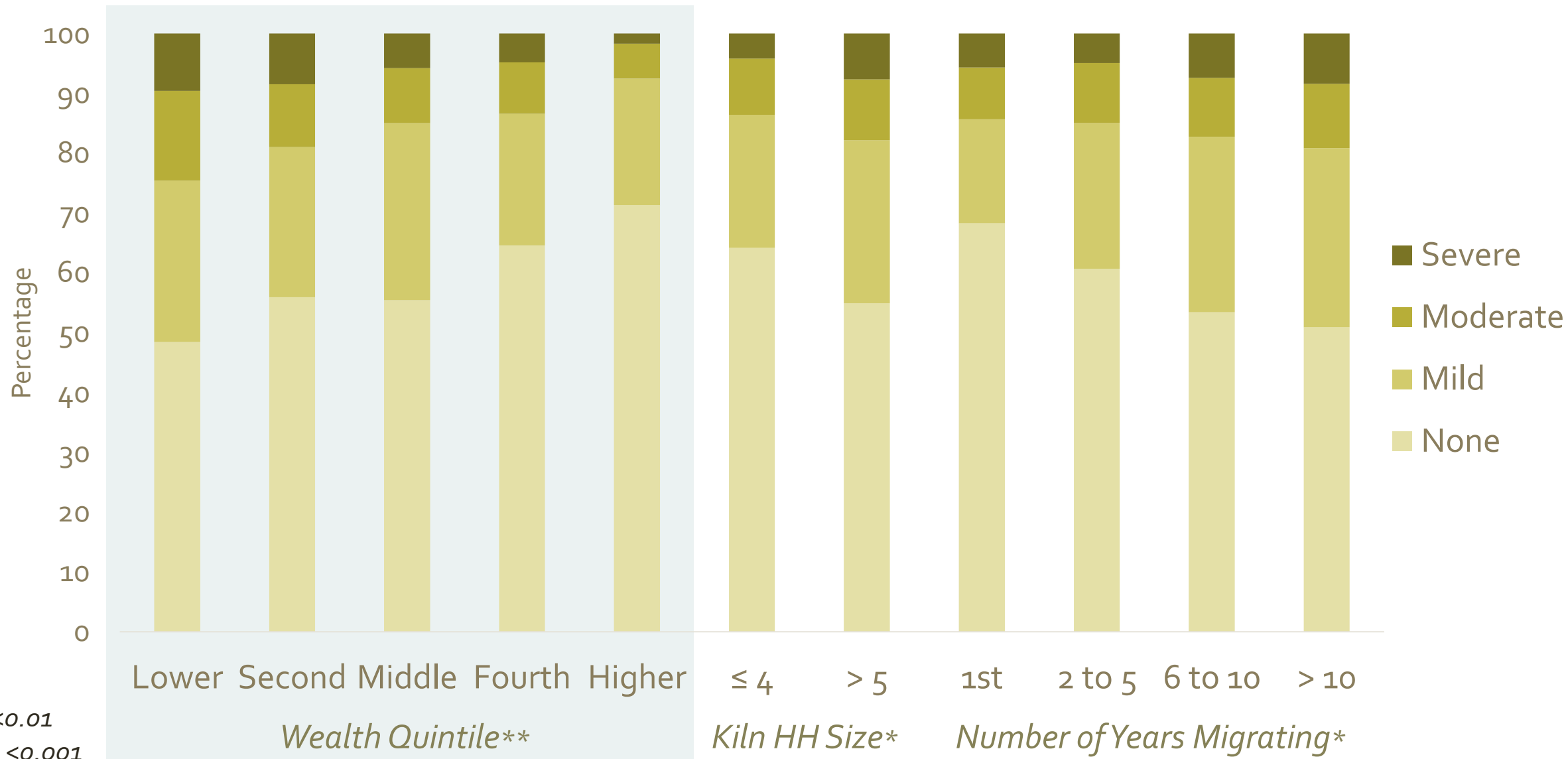


Public Distribution System Utilization and Food Insecurity

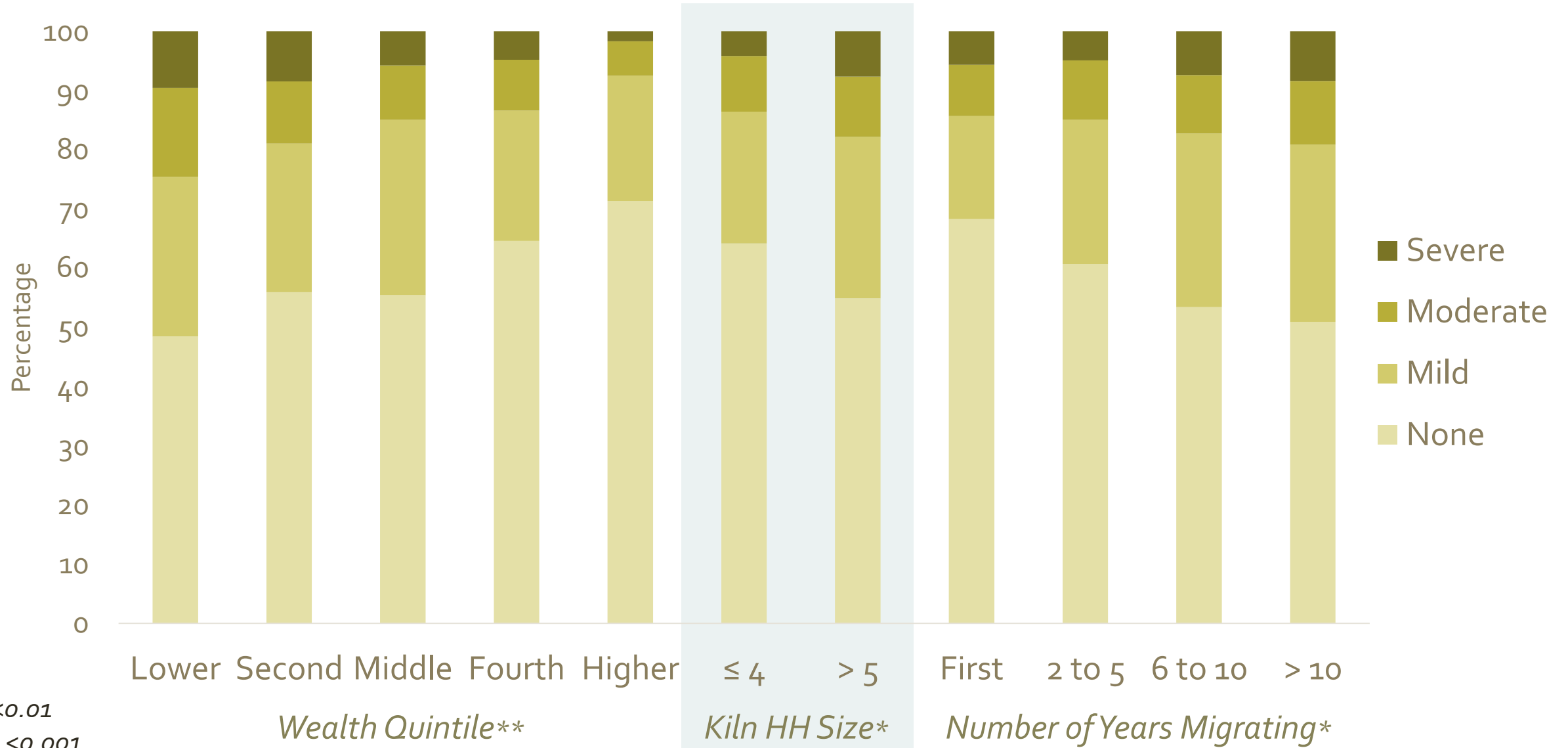


$p = 0.013$

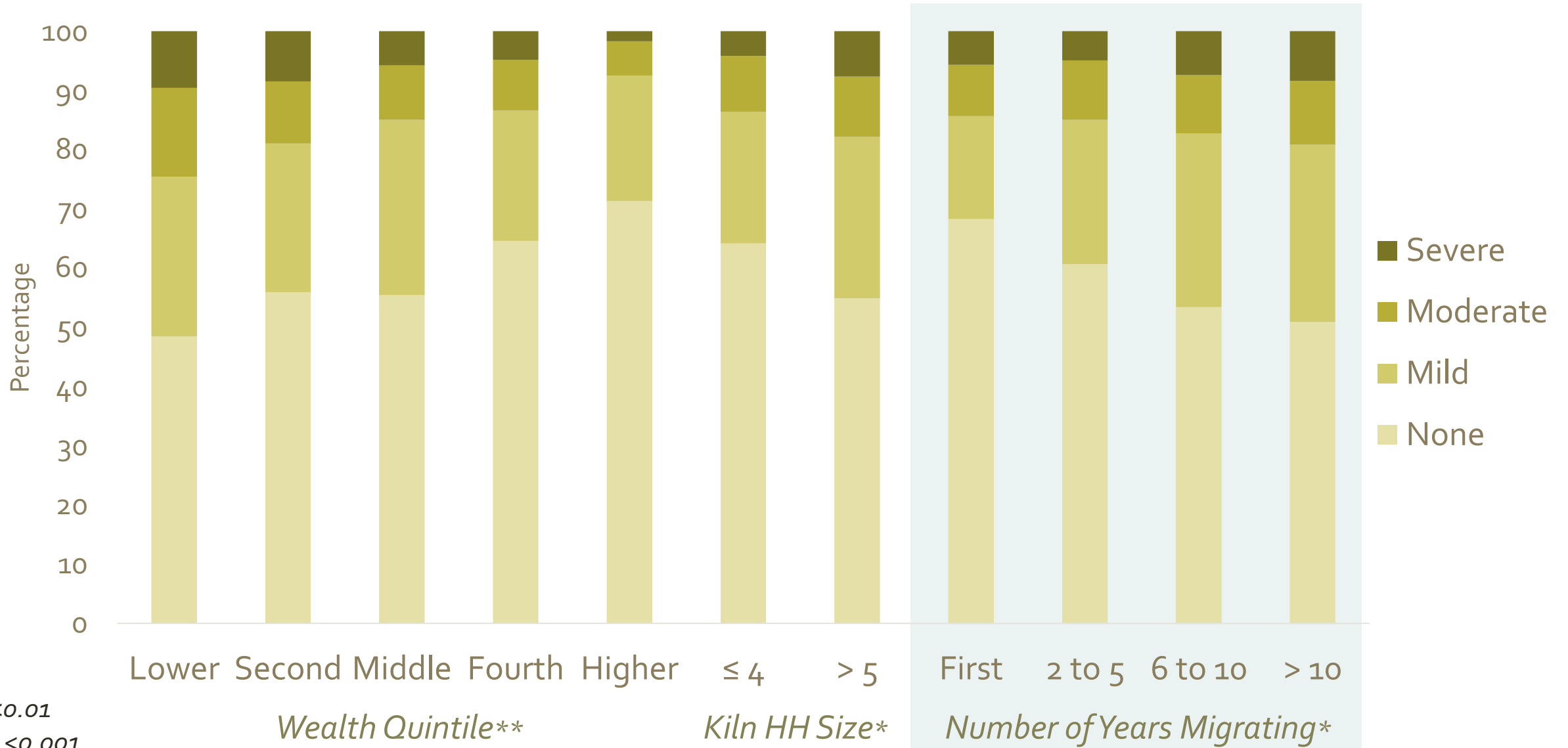
Food Insecurity among Circular Migrants



Food Insecurity among Circular Migrants



Food Insecurity among Circular Migrants



Food Environment: Prices & Affordability

'Here it is so expensive, what can I say? Rs. 300, 400, 500 just for vegetables, oil, and spices, not including rice and wheat flour. At home, we grow food. What do we need to buy?'

'If we work or don't work, even if we only work two days in a week, we will still get 300 or 400 rupees, so we eat whatever we want, meat, fish, eggs, daal, puri ... It happens at home, if there isn't money, then how will we eat?'

- Rukmani Devi, Shakti Kiln, Rohtas



Photo by: Reshma Roshania

Food
Environment:
Accessibility

'We go wherever it's nice, where there is a bazaar, where there is good market, where the place is nice. Here it's so nice, trains and buses run, wouldn't it feel good? Here the market is good, it is in the village. There are close to ten stores for vegetables.'

- Laxmi Devi (Sardarni), Bharat Kiln, Gopalganj

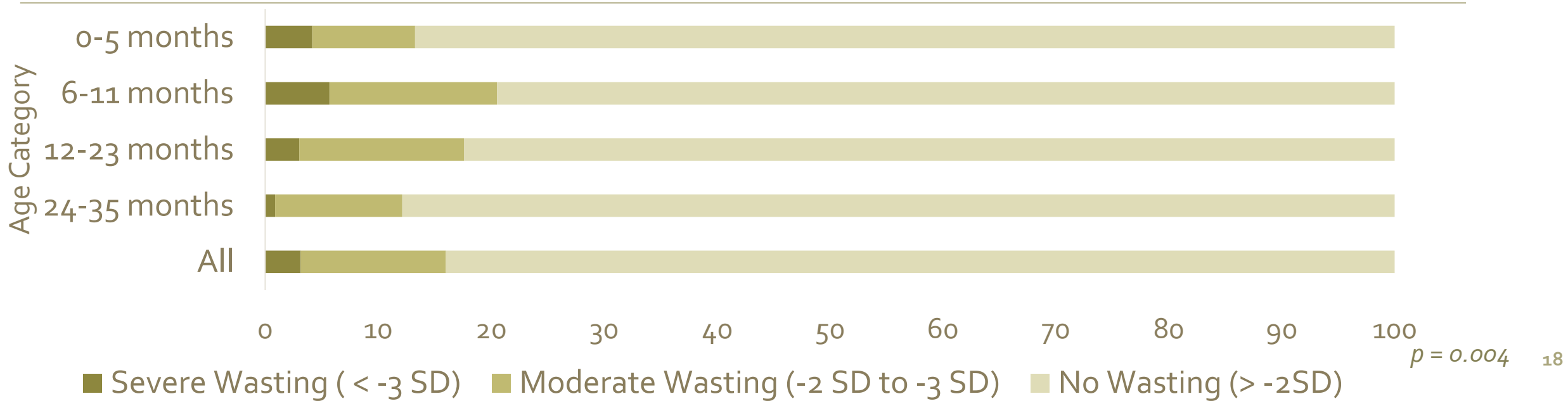
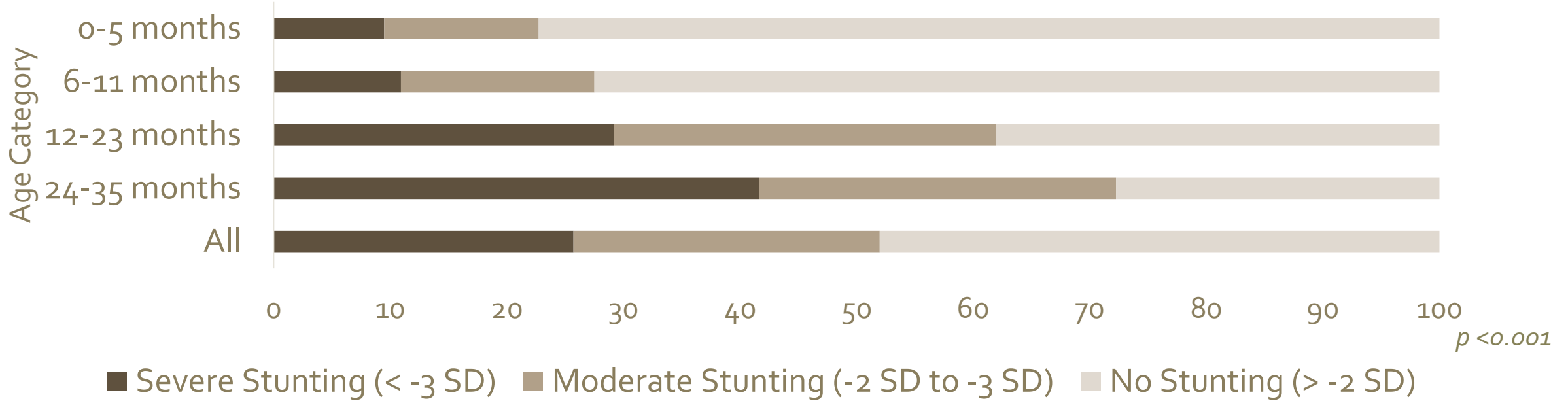


Photo by: Reshma Roshania

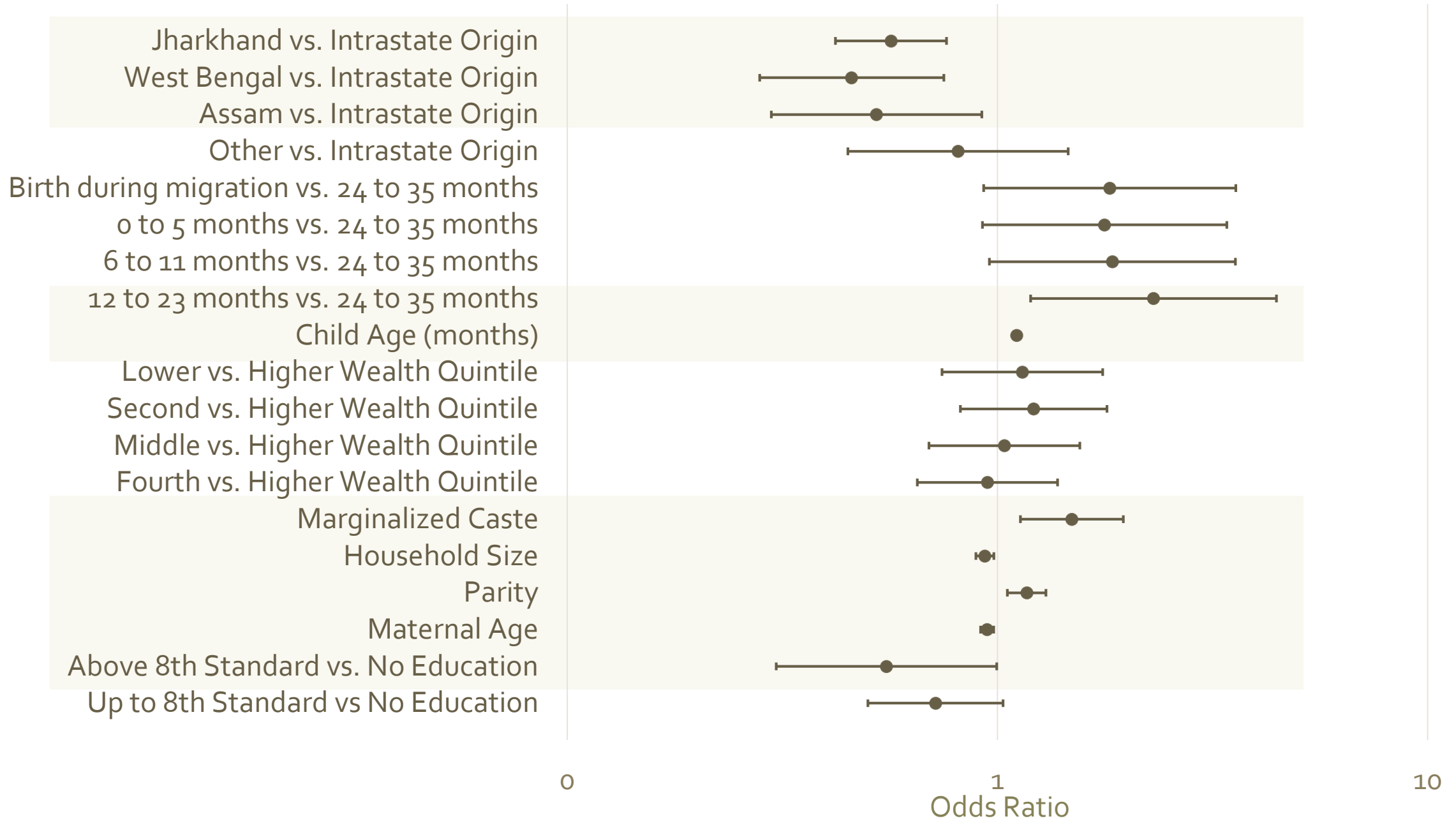
'This kiln is the worst. The bazaar, haat, everything is far. The bricks are heavier too.'

- Savita Devi, Star Kiln, Patna

Nutrition Status among Children under 3 by Age Category



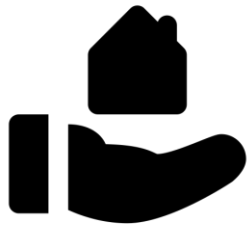
Child Stunting Ordinal Logistic Regression Model



CONCLUSION



Summary



Livelihood
Strategy



Short-term
Affordability



Age at
First
Migration

Implications



Data
Gaps



Right to
Food



Targeted
Programming

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