

DIETARY DIVERSITY & NUTRITIONAL STATUS
OF
INFANT AND YOUNG CHILDREN AGED 6 - 23 MONTHS
AT BARDAGHAT MUNICIPALITY
IN NAWALPARASI DISTRICT - NEPAL

Ranjita Kumari Chaudhary

(MPHN, PGDHCM, BSc. NURSING)

Research Coordinator - Golden Community

Outline of presentation

1) Introduction

- **Background**
- **Problem statement**
- **Rationale**
- **Objectives**
- **Conceptual Framework**

2) Methodology

3) Results

4) Conclusions

5) References

Background

Dietary diversity : The number of individual food items or food groups consumed over a given period of time.

Minimum dietary diversity is Proportion of children 6 - 23.9 months of age who receive foods from 4 or more food group out of 7 food groups (1).

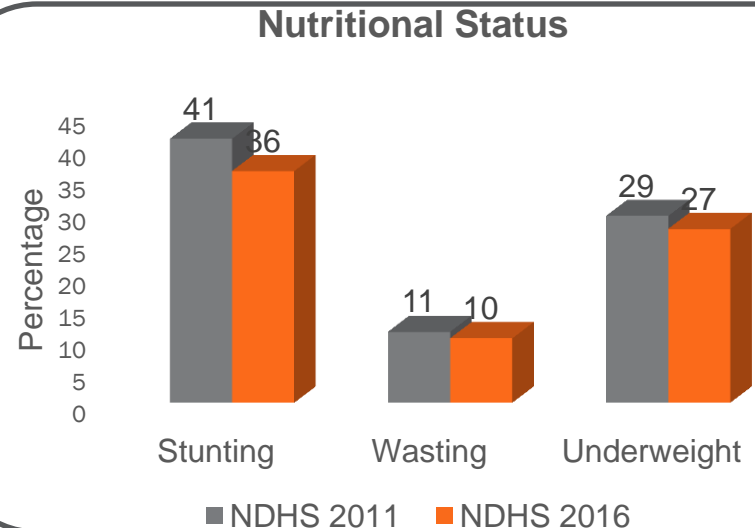
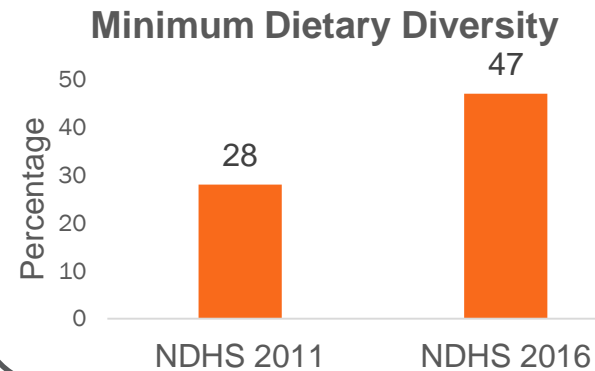
Dietary diversity **affects** a child's nutritional status directly or indirectly (2).

Dietary diversity **influences** a child's nutritional status individually or in association with other determinants (3).

Problem Statement

Lack of dietary diversity is a particularly severe problem among **poor populations** in the developing countries like Nepal (4).

Nutritional status of children is influenced by diet. Better dietary diversity helps **ensure adequate intake of essential nutrients** especially for growing children (4).



Rationale

Dietary Diversity feeding practice has major role in **growth and development** as well as in determining the **nutritional status** of the children.

Malnutrition is highly associated with *minimum dietary diversity feeding practice* (7).

Though there have been similar studies conducted in Nepal regarding dietary diversity, **less study so far addressed** the dietary diversity feeding practices and Nutritional status of children aged 6-23 months in the study area.

Objectives

General Objective

To determine the Factors associated with Dietary Diversity and Wasting & Assess the nutritional status of children 6-23 months of age at Bargadhat Municipality in Nawalparasi District.

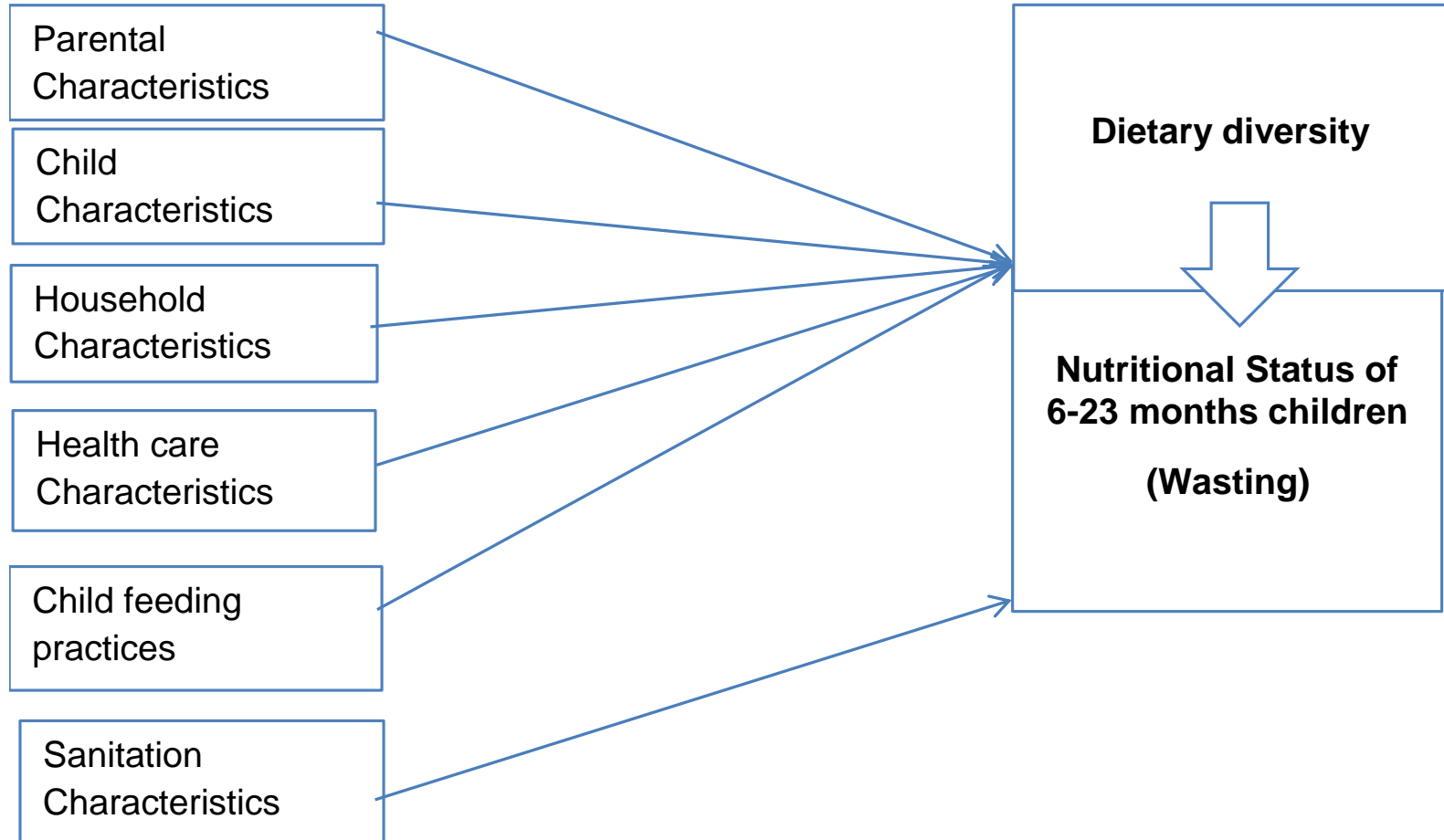
Specific Objectives

To determine the Factors associated with Dietary Diversity feeding practices of children aged 6-23 months.

To determine the Factors associated with wasting in children aged 6-23 months.

To assess the Nutritional Status of children aged 6-23 months.

Conceptual Framework



Research Design & Methodology

Research Method: Quantitative

Types of study: Cross- Sectional

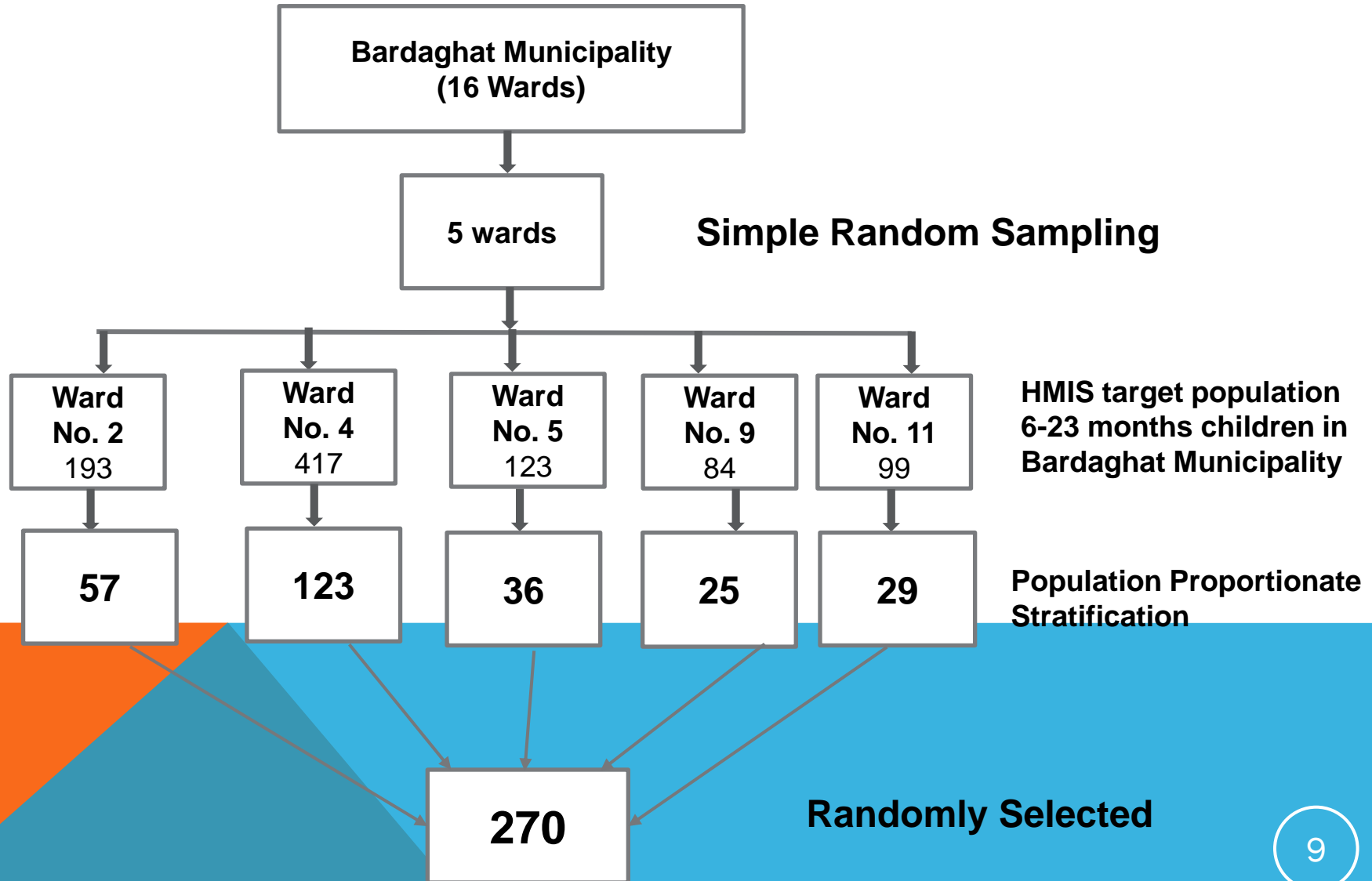
Study Population: Mothers with their children
aged 6-23 months.

Study site: Bardaghat Municipality-
Nawalparasi District, Nepal

Study Period: July 2017 to April 2018

Sample Size: 270

Sampling Flow



Tools and Techniques for Data Collection

Tools

- Dietary diversity score tools (IYCMDD score WHO)
- 2 in 1 Seca scale for weight measurement
- Height board for length measurement.

Techniques

- Face to face interview
- Anthropometrical Measurement - Weight and Length, MUAC and Nutritional edema.

Limitations of the Study

- The study did not consider the **Quantity of food variety** consumed by a child.
- Only **Factors of Wasting** was determined in nutritional status.

Ethical consideration

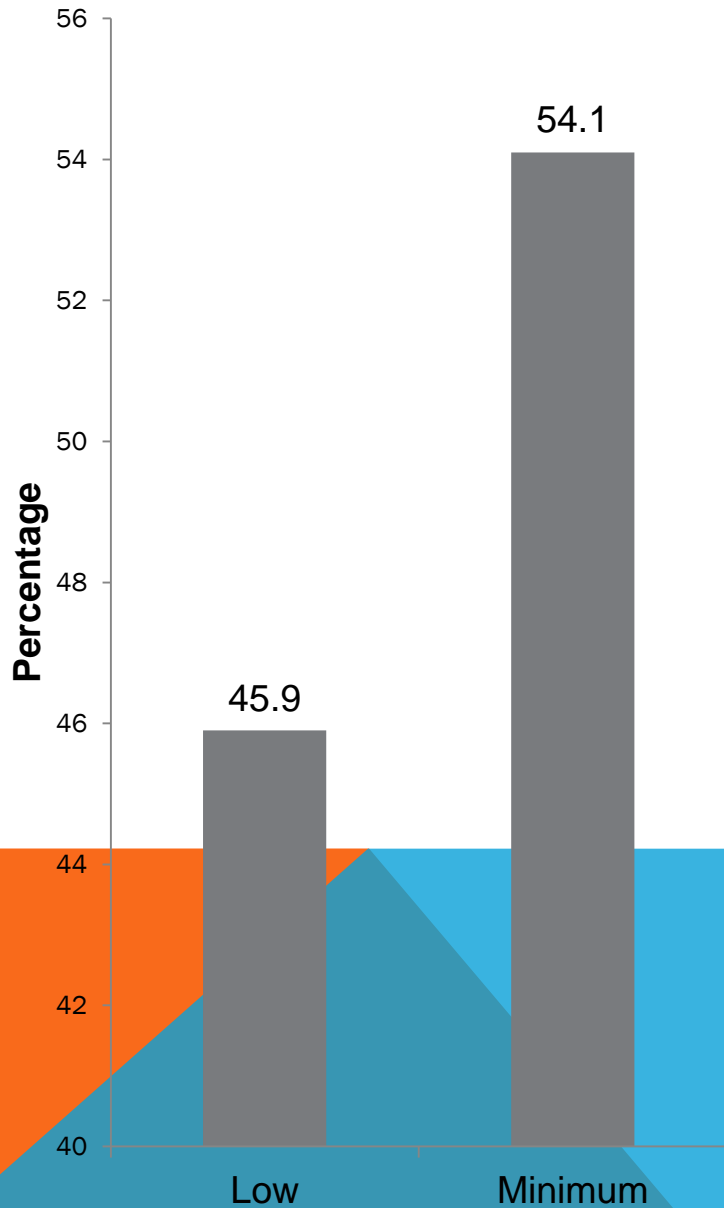
- Ethical approval taken from:
 - ✓ IRB of Maharajgunj Medical Campus
 - ✓ NHRC
- In case of under nutrition: *the family was advised to seek health care from nearest health facility.*

Data processing and analysis

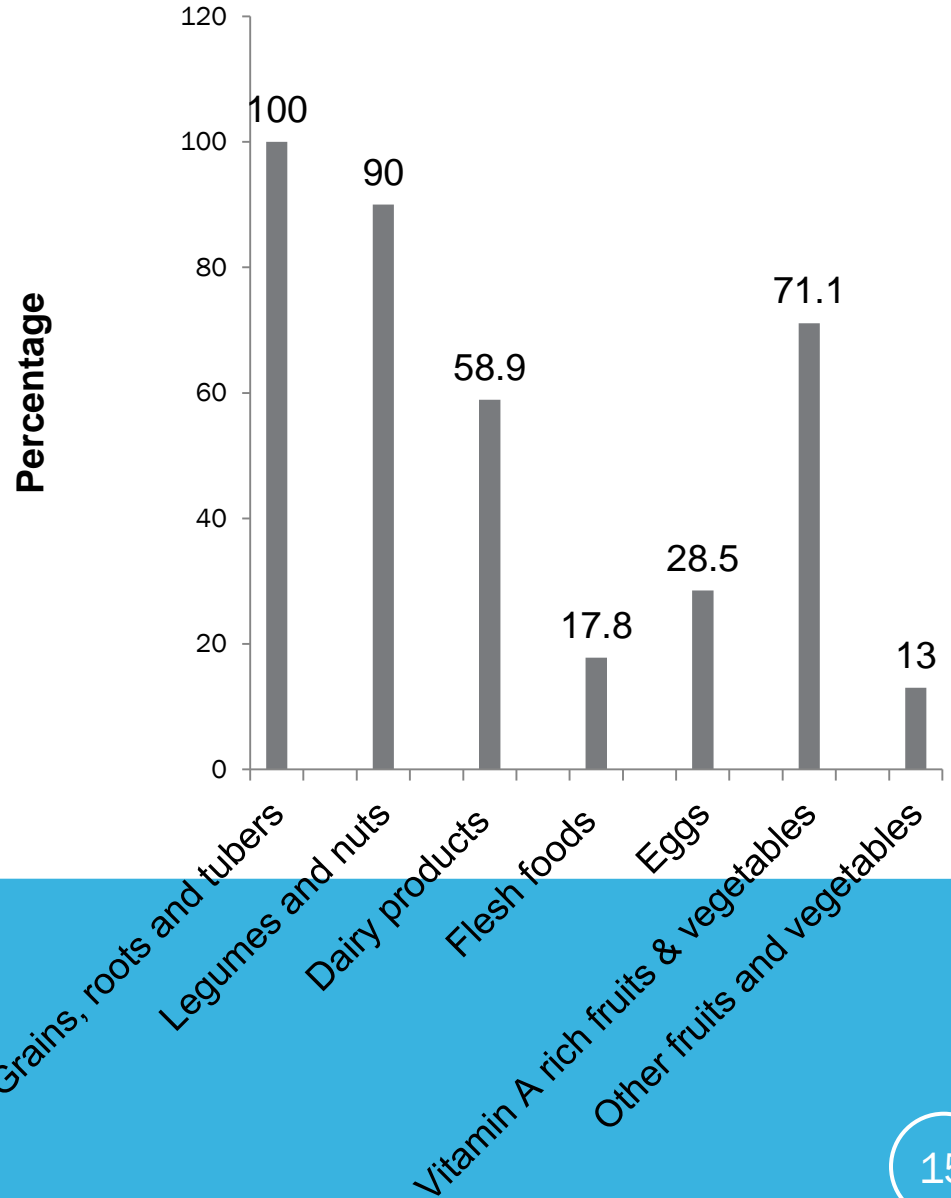
- **Data entry** Epidata 3.1
- **Data analysis** IBM SPSS 22.0 version
- **Anthropometry Analysis** WHO Anthro software
- **Wealth Quintile** Principle component analysis
- **Descriptive analysis** Frequency, percentage, Mean &
 standard deviation
- **Bivariate analysis was done to test the association.**
- **P- value < 0.05 was considered significant and confidence
 interval for odds ratio was set at 95%.**
- **Multicolinarity test**
- **Significant variables observed in bivariate analysis were
 subsequently included in multivariate analysis.**

Results

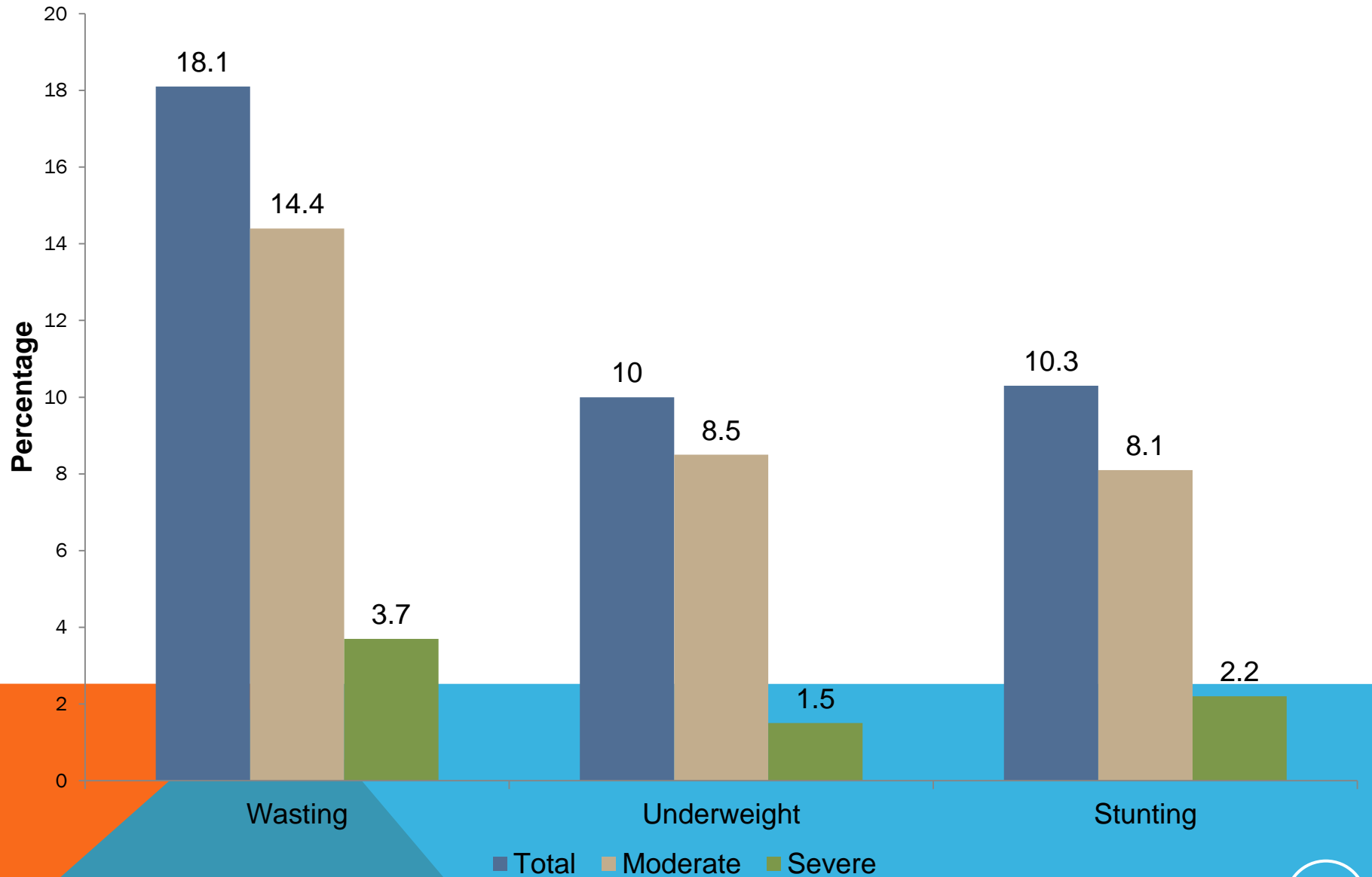
Dietary Diversity (n=270)



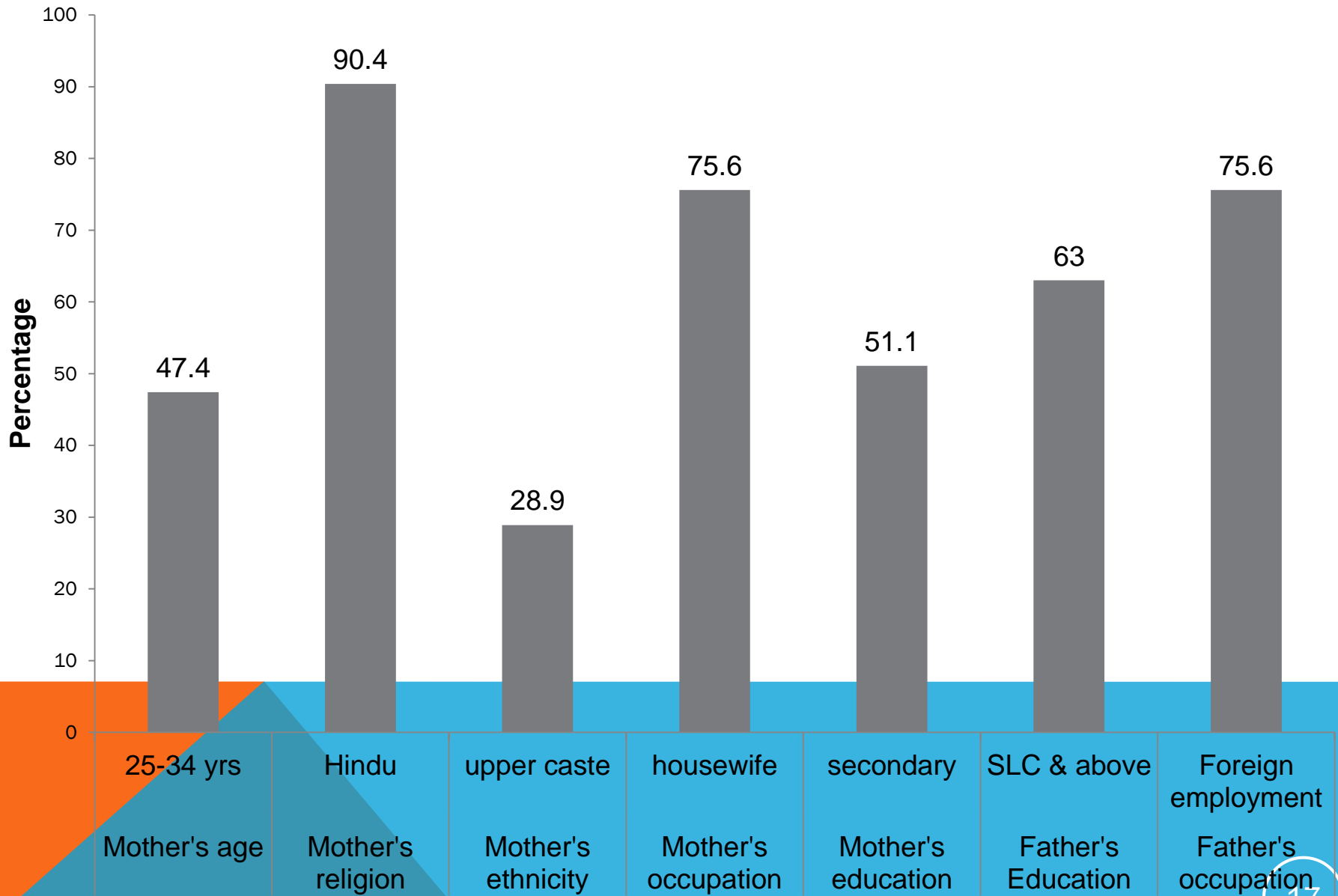
consumption of seven food groups (n=270)



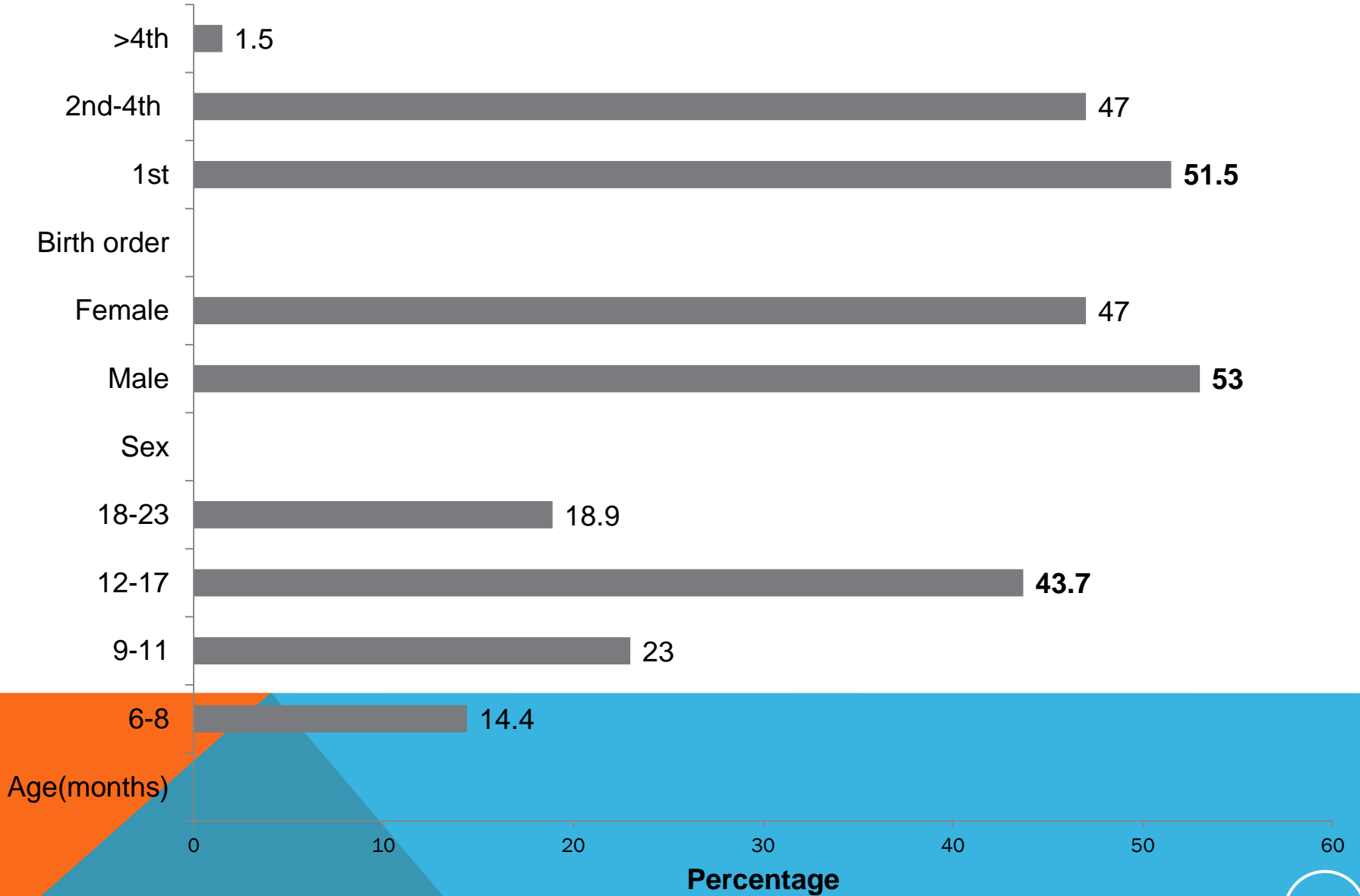
Nutritional status (n=270)



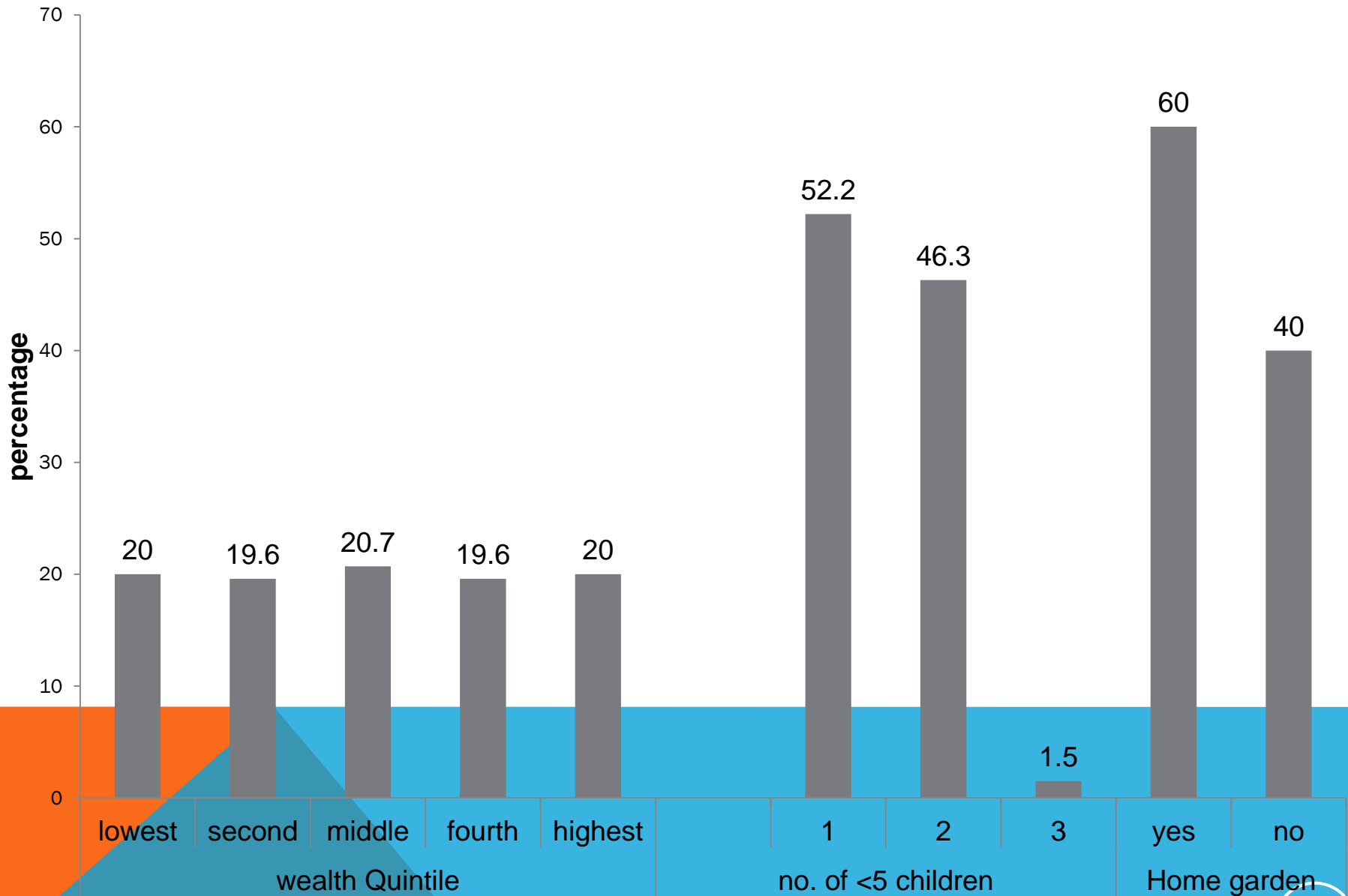
Parental Characteristics (n=270)



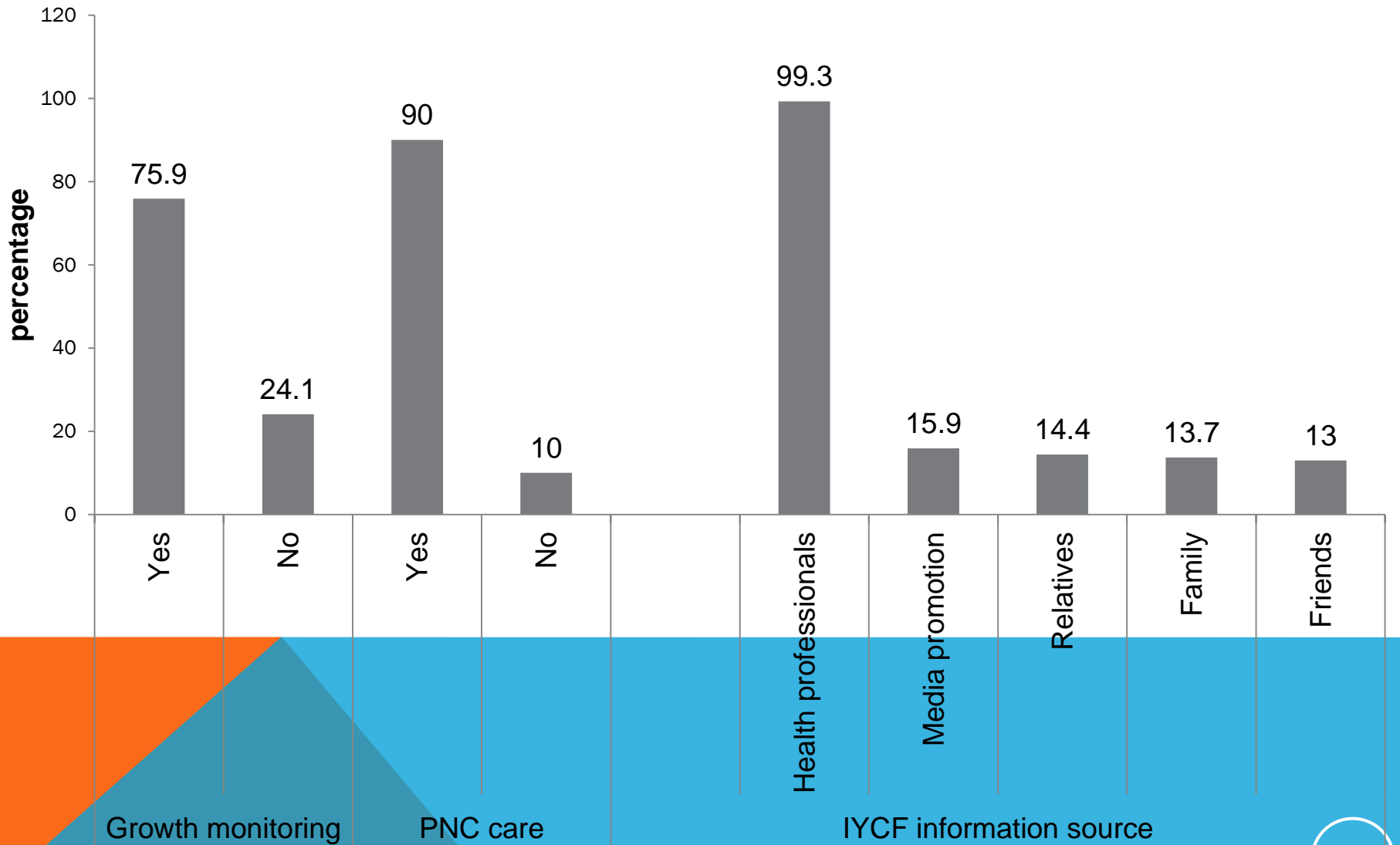
Child Characteristics (n=270)



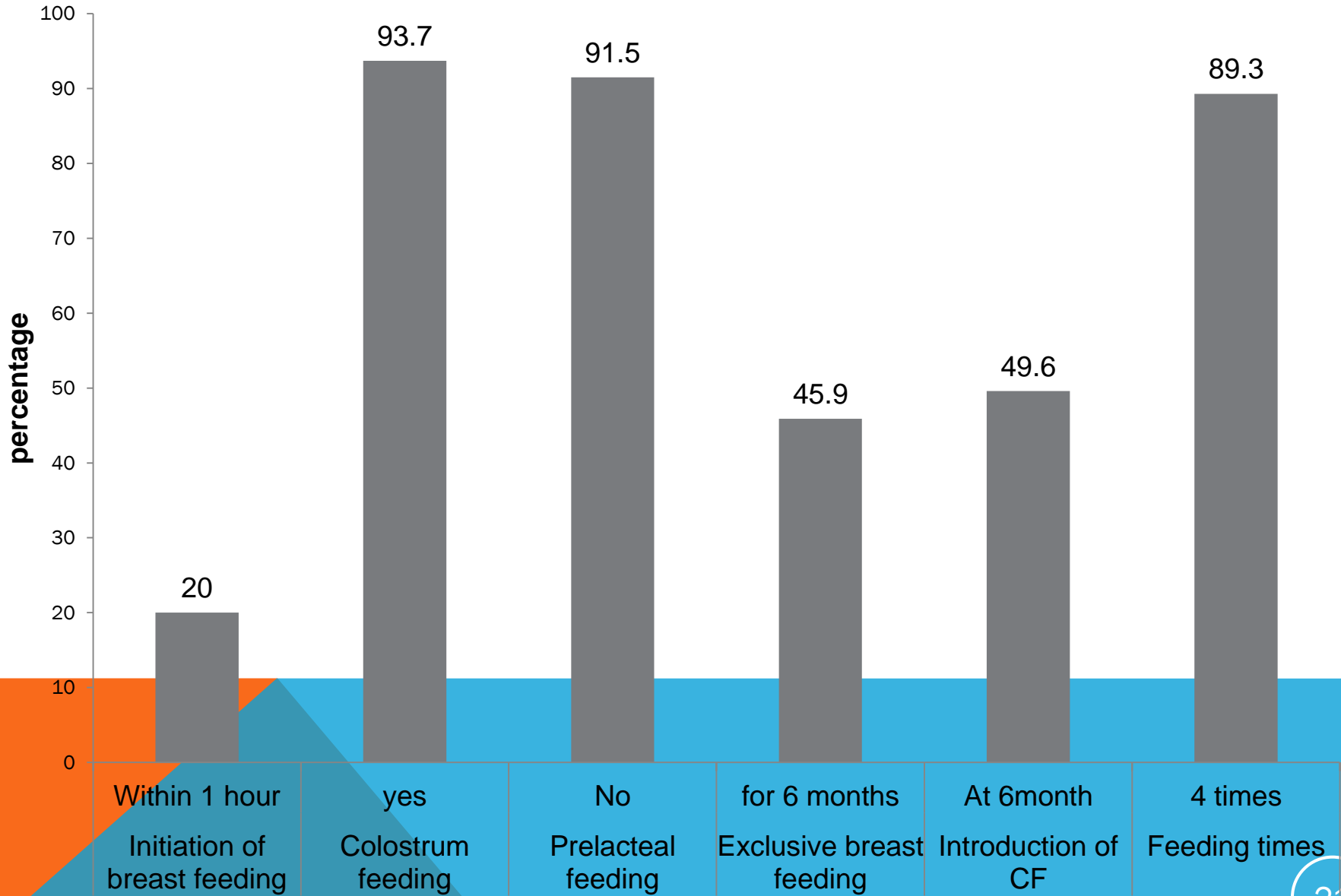
Household Characteristics (n=270)



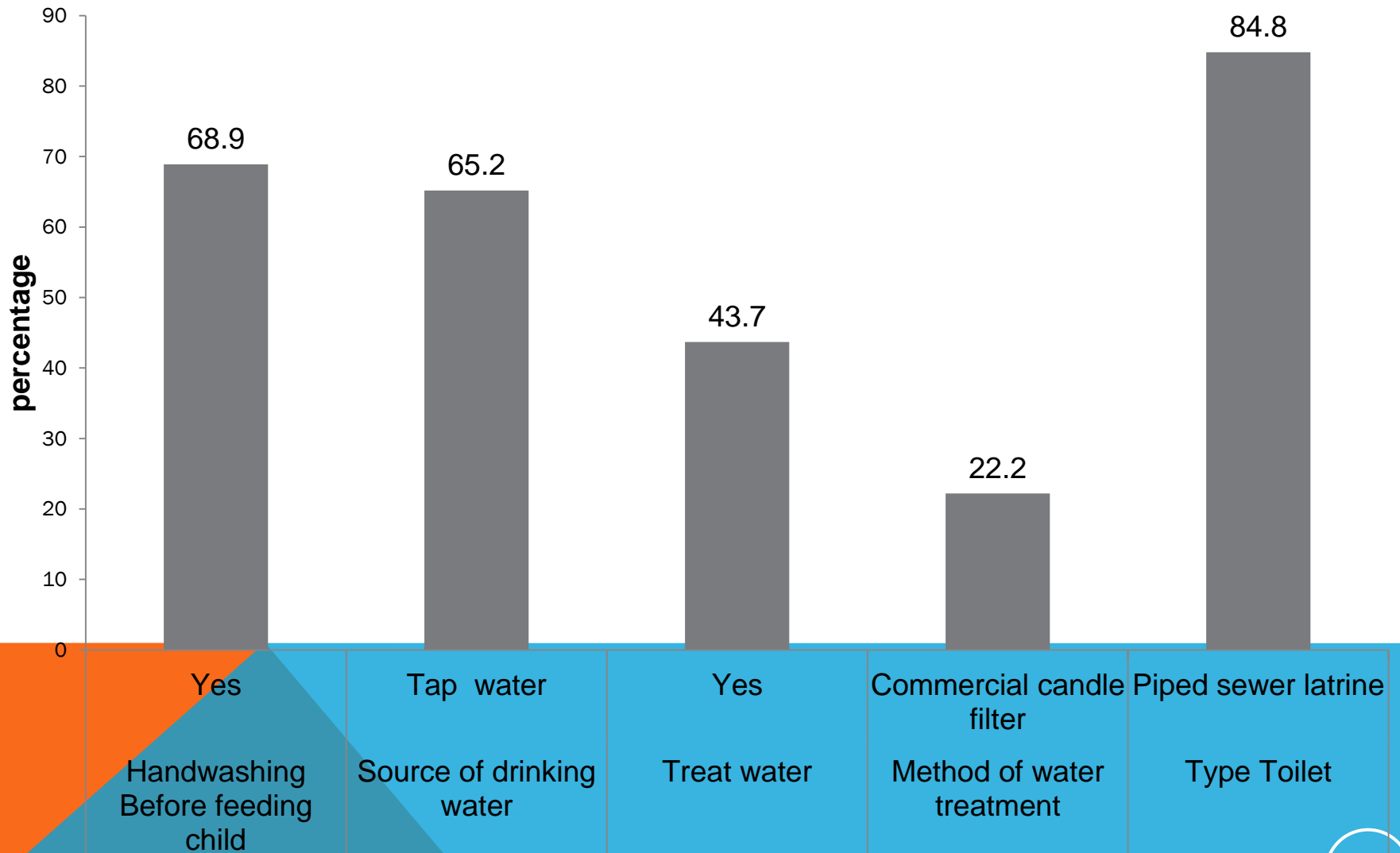
Health care characteristics (n=270)



Child feeding Practices(n=270)



Sanitation related characteristics (n=270)



Adjusted Relationship *between* Characteristics & Dietary Diversity

Characteristics	Dietary diversity		Unadjusted OR (95% CI)	Adjusted OR (95% CI)
	Low n (%)	Minimum n (%)		
Wealth index				
Low	56 (62.9)	33 (37.1)	1	1
Medium	40 (48.2)	43 (51.8)	1.824 (0.993-3.353)	1.191 (0.589-2.406)
High	28 (28.6)	70 (71.4)	4.242 (2.296-7.840)	2.459 (1.144-5.286)*
IYCF information from media promotion				
No	114 (50.2)	113 (49.8)	1	1
Yes	10 (23.3)	33 (76.7)	3.329 (1.567-7.075)	2.354 (1.052-5.267)*

Adjusted relationship between characteristics and Wasting

Characteristics	Nutritional status		Unadjusted OR (95% CI)	Adjusted OR (95% CI)
	No Wasting n (%)	Wasting n (%)		
Dietary diversity				
Minimum	130 (89)	83 (11)	1	1
Low	16 (11)	41 (89)	4.014 (2.116-7.616)	3.890 (1.871-8.087) *

Conclusions

Majority of children were **fed starchy staple** food while *very few* children were fed eggs, flesh food and fruits.

Reduced dietary diversity is a **strong predictor** of wasting in Bardaghat Municipality.

Health education and the inclusion of a **variety of food groups** into daily diet may be essential to improve child nutritional status.

References

1. **World health organization. Indicators for assessing infant and young child feeding practices: part 2: measurement. 2010.**
2. **Mbogori T. Dietary diversity and child malnutrition in Kenya. 2013.**
3. **Jennifer Crum GRS, John Mason, Saba Mebrahtu, Pradiumna Dahal. Infant and Young Child Feeding Practices as Associated with Child Nutritional Status in Nepal. Analysis of the Nepal**
4. **Gatahun A, Abyu M. Dietary Diversity Feeding Practice and Determinants among Children Aged 6-23 Months in Kemba Woreda, Southern Ethiopia Implication for Public Health Intervention. Nutrition & Food Sciences. 2015.**
5. **Ministry of Health and Population (MOHP) [Nepal] Nepal Demographic Health Survey 2011. Kathmandu, Nepal: Ministry of Health and Population, New ERA, and ICF International ,Calverton, Maryland. 168-76.**
6. **Ministry of Health and Population (MOHP) [Nepal] Nepal Demographic Health Survey 2016. Kathmandu, Nepal: Ministry of Health and Population, New ERA, and ICF International ,Calverton, Maryland.**
7. **Rah J, Akhter N, Semba R, De Pee S, Bloem M, Campbell A, et al. Low dietary diversity is a predictor of child stunting in rural Bangladesh. European journal of clinical nutrition. 2010;64(12):1393.**

Thank You !