

Nutritional Status of Pregnant and Lactating women in Baran District of Rajasthan

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Baran District Map



Background

- Pregnant and Lactating women form one of the most vulnerable segments of the population from nutritional point of view. Various studies in India and elsewhere have shown that in chronically undernourished women subsisting on unchanged dietary intake in pregnancy and lactation have an adverse effect on maternal nutritional status.
- Anemia % of pregnant women

Anemic % of pregnant women age (15-49)years			
Area	India (%)	Rajasthan (%)	Baran (%)
Urban	45.7	41.4	---
Rural	52.1	48.0	73.2
Total	50.3	46.6	69.5

(source: NFHS 4)

Objectives

- The broad objective of this study is to understand nutrition status of pregnant and lactating women in Baran District. Specific objectives are:
 - 1. To examine the socio economic characteristics of pregnant and lactating women in Baran.
 - 2. To assess the cultural practices during pregnancy and lactation period.

Methodology

- **Sampling Design:** It was a qualitative and quantitative study, carried out in 5 Block of Baran District of Rajasthan in India, adopting multi stage random sampling procedure
- **Sample Size:** The sample size of this study was 720. The current study covered 720 Households in 30 village of 5 Block in Baran District.
- **Investigations:** The following investigations were carried out in the selected HHs: Socio-economic and demographic particulars of households, Nutrition assessment (Dietary nutrient intakes and culture practices during pregnancy and lactation)
- **Data Analysis:** Descriptive and analytical statistics of the data were carried out using SPSS Windows version 20.0 and Excel. Appropriate statistical tools were used wherever needed.

Categories of women

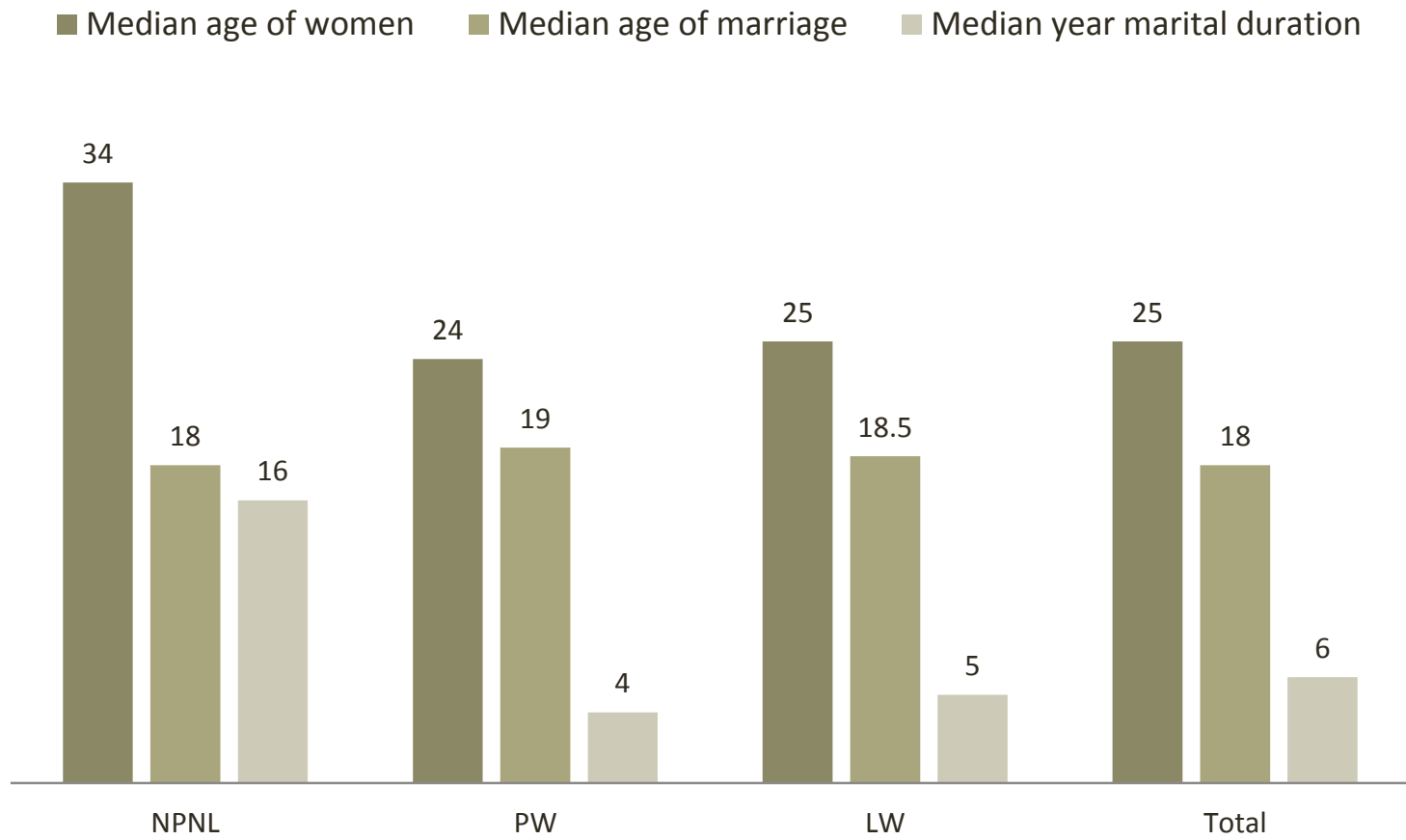
- **NP & NL/ N1:** Non- pregnant and Non- Lactating Women
- **PW/ P1:** Pregnant Women (0-5 Months)
- **PW/ P2:** Pregnant Women (6-10 Months)
- **LW/ L1:** Lactating Women (0-5 Months)
- **LW/ L2:** Lactating Women (6-11 Months)
- **LW/ L3:** Lactating Women (12-23 Months)

Socio Economic And Demographic Profile

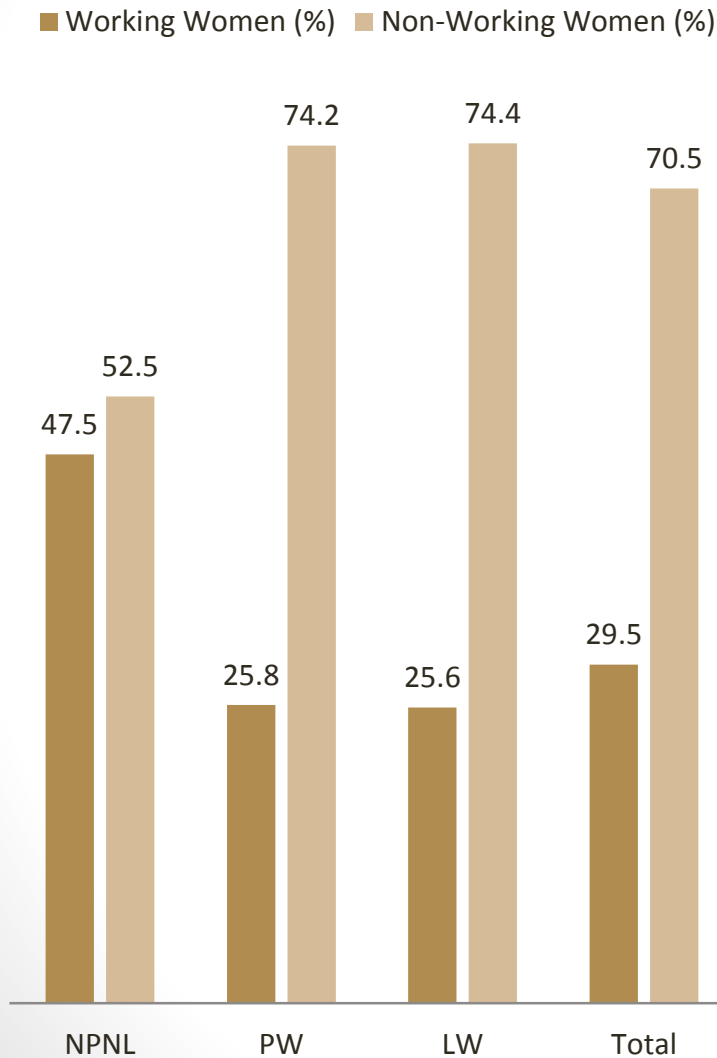
Table 2 Baran District Profile

Description	2011 Census
Actual Population	12,22,755
Population Growth	19.71
Sex Ratio (per 1000)	929
Average literacy	66.66
Female Literacy	51.96
% of Scheduled Castes	18.09
% of Scheduled Tribes	22.64

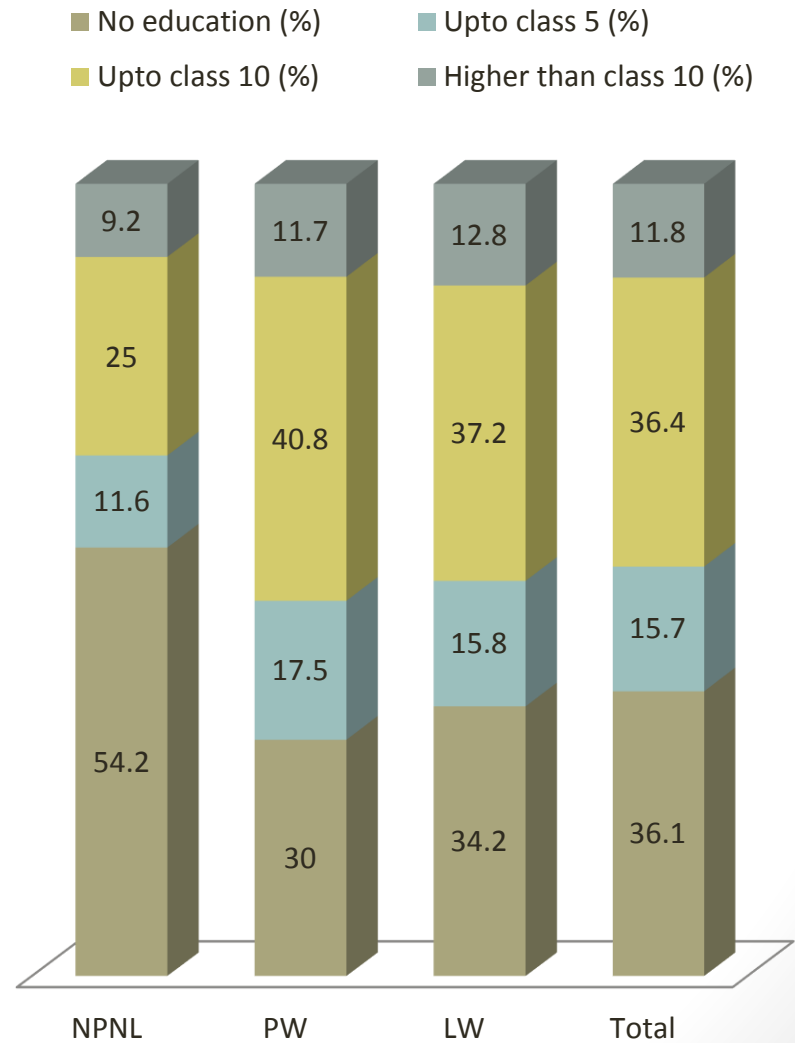
Respondent Profile of age, Marriage



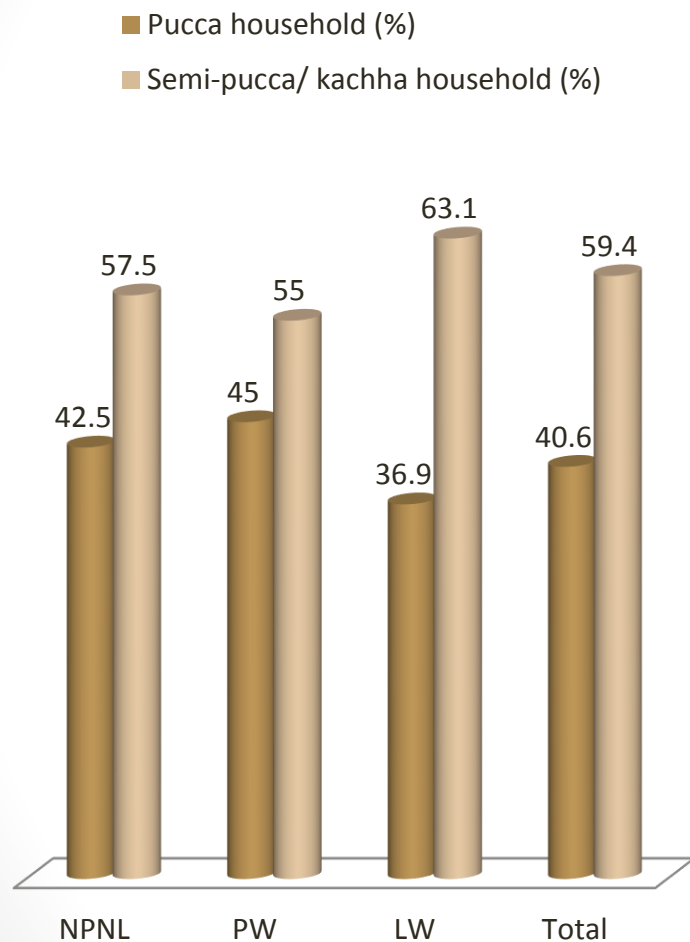
Employment Status



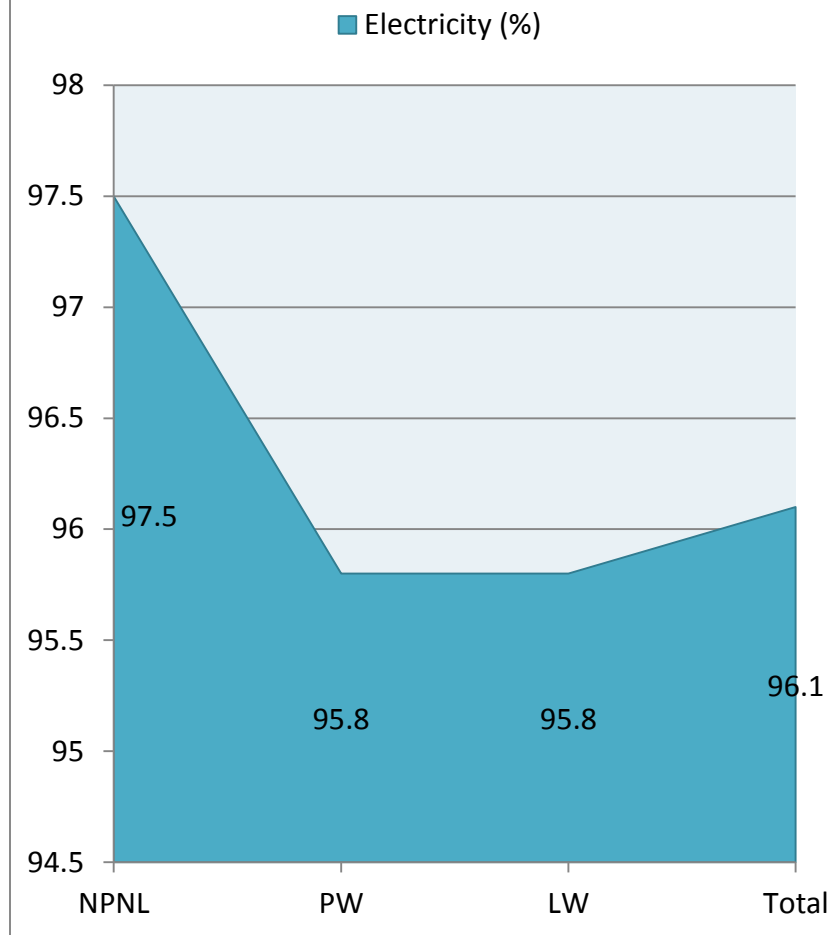
Education Status



Type of House

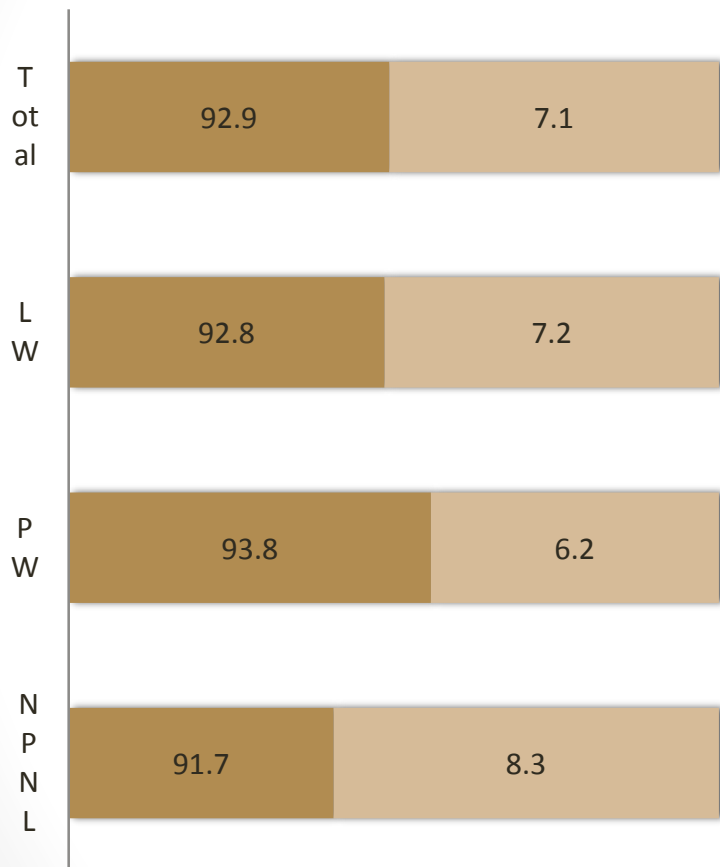


Electricity (%)



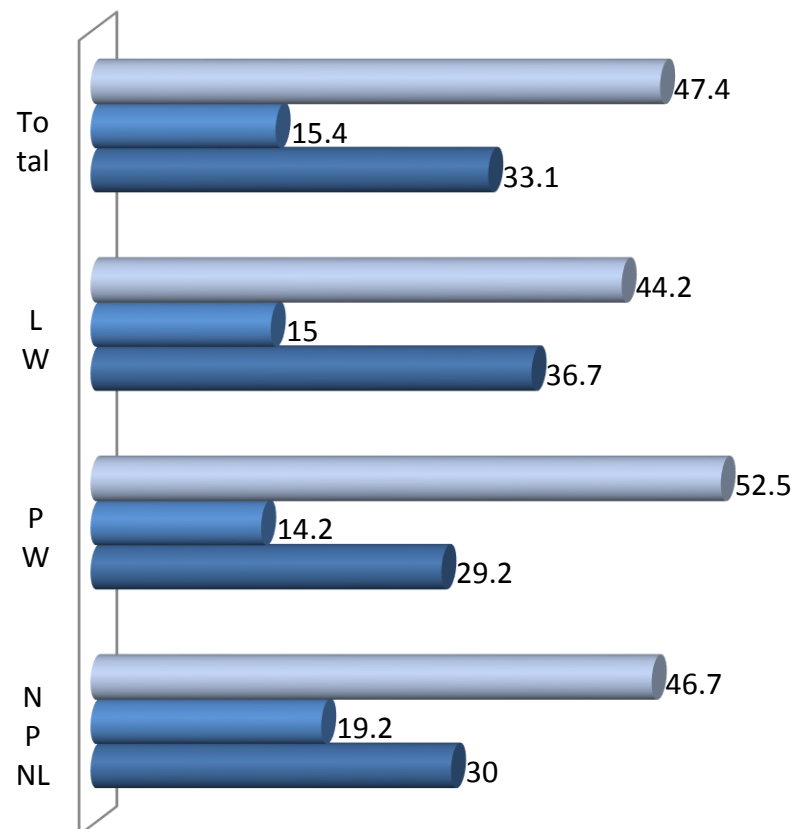
Religion Composition

■ Hindu (%) ■ Muslim (%)



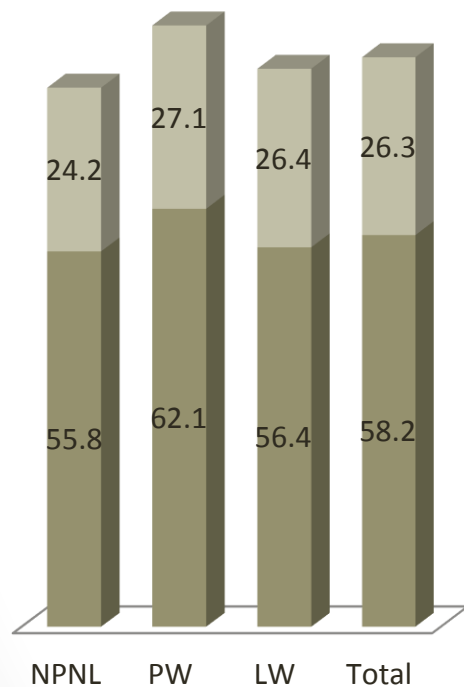
Caste Composition

■ OBC (%) ■ Scheduled Tribe (%) ■ Scheduled Caste (%)



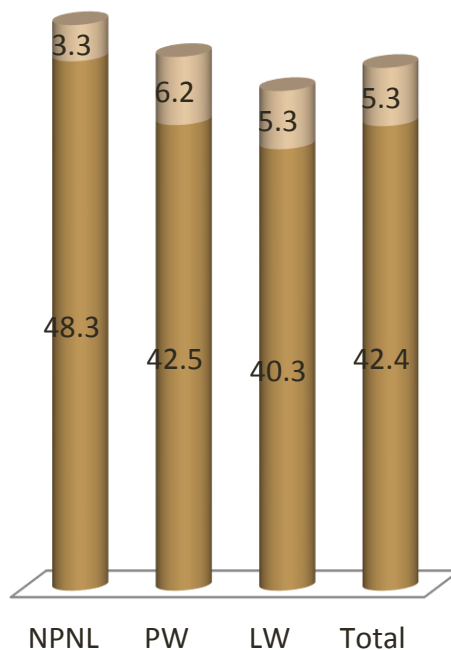
Source of Drinking water

■ Tap Water (%) ■ Tube Well/Hp (%)



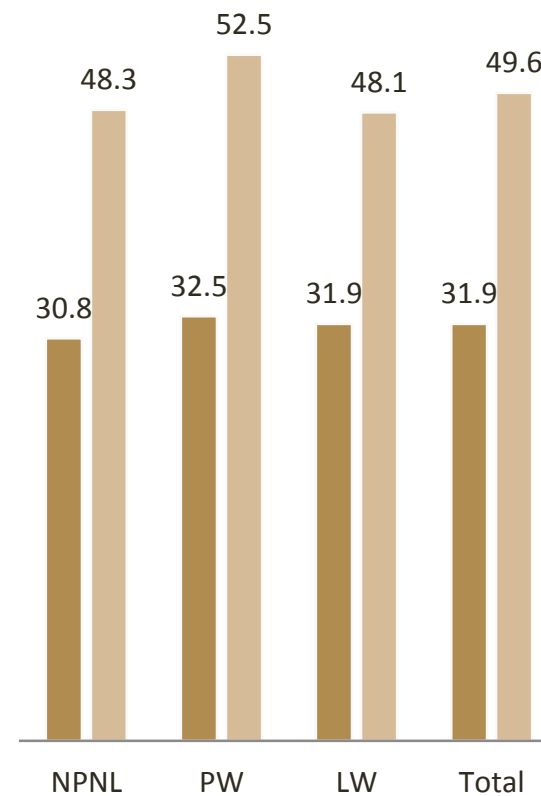
Type of Toilet Facility

■ Shared Facility (%) ■ Own Flush/Pit Toilet (%)



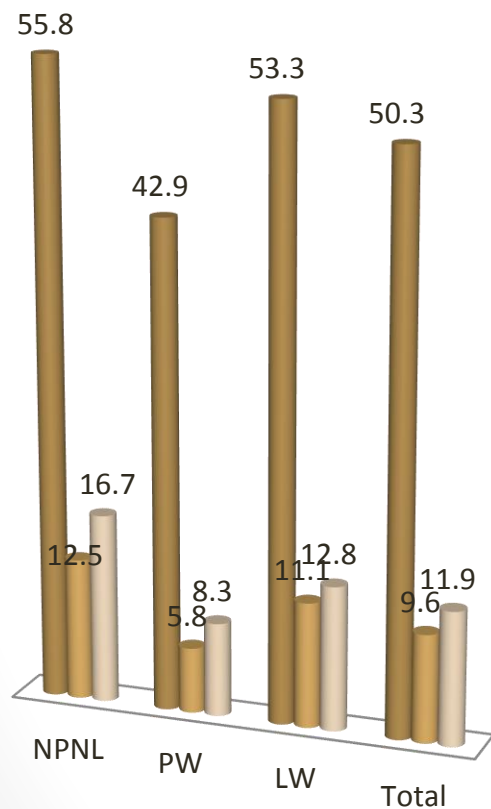
Fuel for Cooking

■ LPG/ Nat Gas (%) ■ Woods/ Grass/ Crop Paste (%)



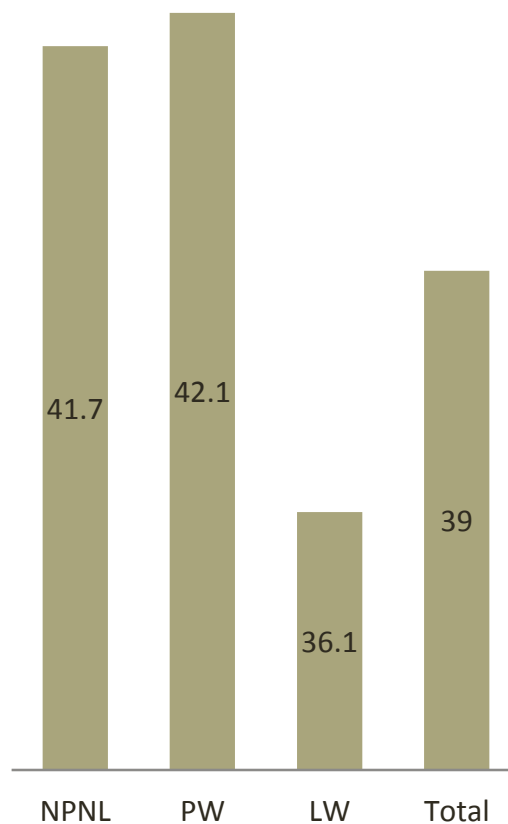
Decision Making

- What food to be prepared
- Purchase of major household goods
- Purchase of daily household needs



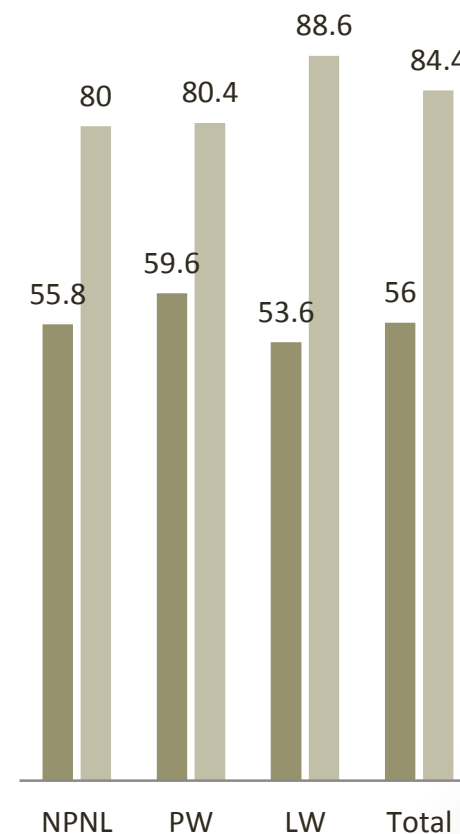
Women have Money for Owned Use

- Women have Money for Owned Use



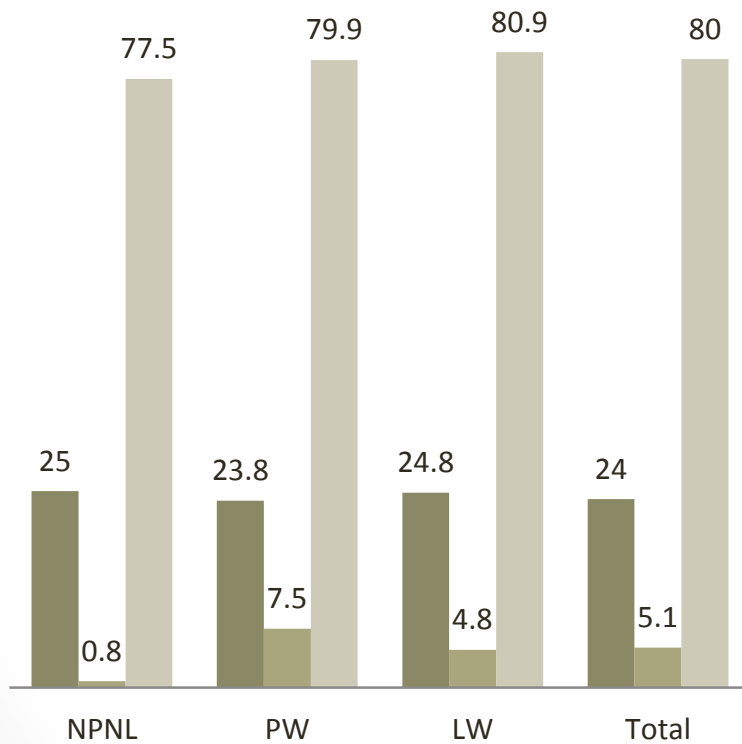
- Having Agriculture Land (%)

- Women having Bank Account (%)



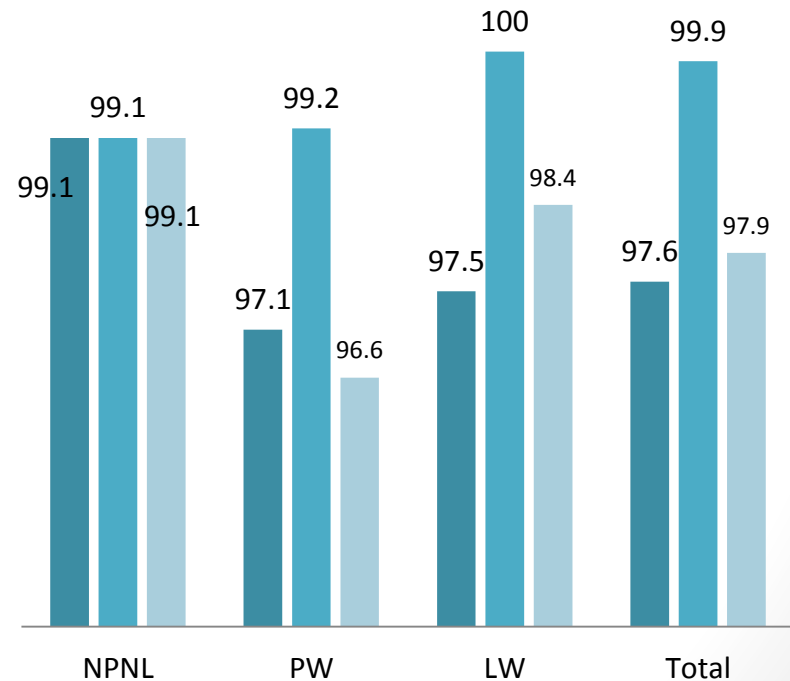
Media Exposure

- Read Newspaper (%)
- Listen Radio (%)
- Watch TV (%)

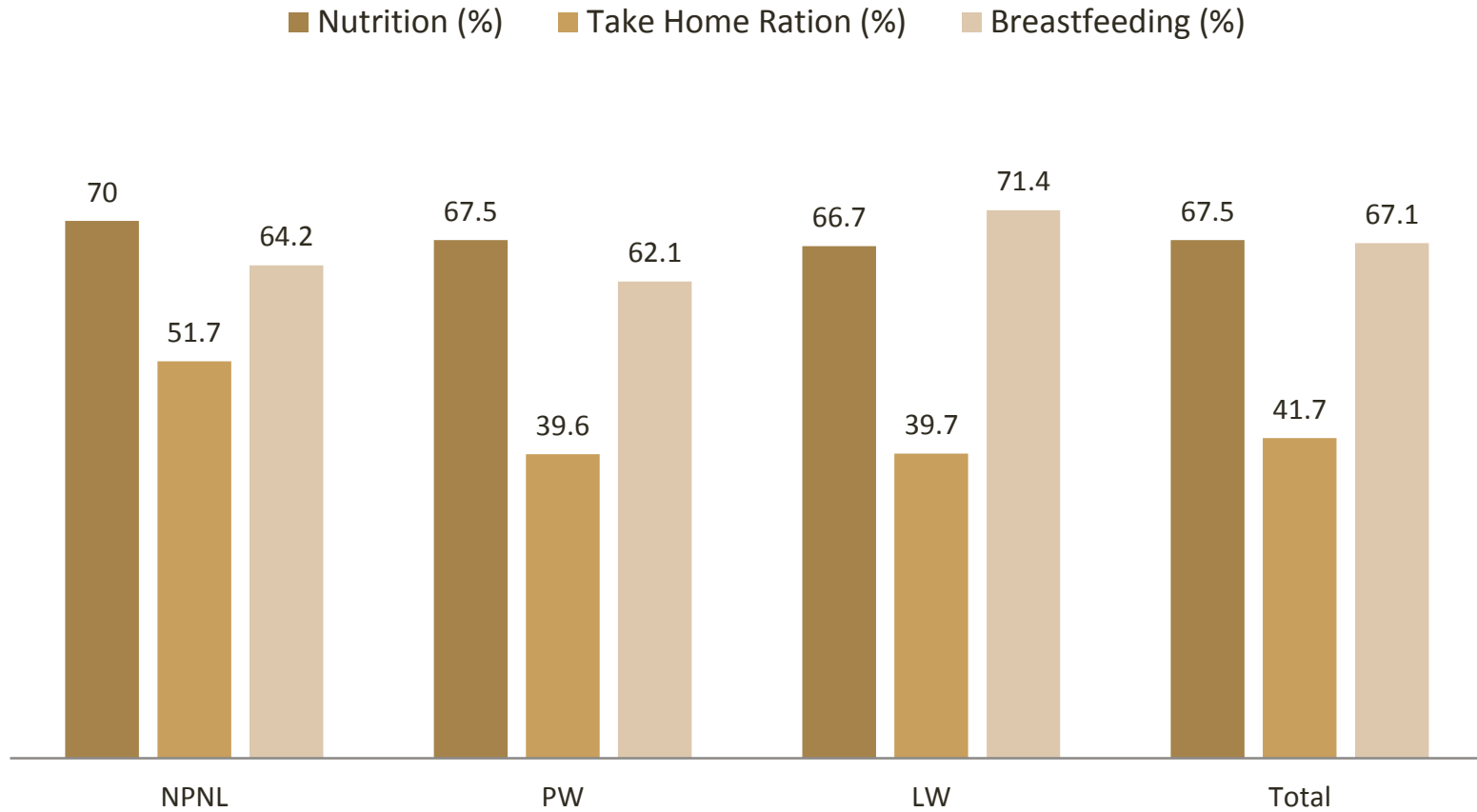


Allowed To go

- Market (%)
- Health Facility (%)
- Outside village/ community (%)



- Awareness about following:



Median Dietary intake											
Category	Cereals & their products	Egg	Fruits	Green Leafy Vegetables	Meat & Fish	Milk	Oil	Other vegetables	Pulses & their Products	Roots & Tubers	Sugars
N1	254.5	0.0	0.0	0.0	0.0	100.0	16.3	49.5	16.5	89.0	15.5
P1	260.0	0.0	0.0	0.0	0.0	123.5	20.0	71.0	9.5	63.0	20.0
P2	254.5	0.0	0.0	0.0	0.0	100.0	20.0	60.0	15.0	70.0	20.0
L1	241.5	0.0	0.0	0.0	0.0	100.0	20.0	70.0	15.0	93.3	16.3
L2	260.0	0.0	0.0	0.0	0.0	120.0	22.5	85.0	0.0	100.0	20.0
L3	250.8	0.0	0.0	0.0	0.0	100.0	16.0	55.5	18.0	95.5	20.0
Total Women	257.8	0.0	0.0	0.0	0.0	102.0	20.0	67.5	13.1	85.5	20.0

Micronutrient intake								
Primary Data	Energy	Protein	Fats	Calcium	Iron	Zinc	Vit-A	Vit-C
L1	1366	40	12	251	13	4.2	229	19
L2	1454	43	14	274	13	4.4	247	18
L3	1377	40	13	280	13	4.3	230	20
P1	1482	43	14	298	14	4.5	238	17
P2	1364	42	12	264	13	4.3	212	20
N1	1366	41	13	278	13	4.1	233	18
			ICMR Guideline					
L1	2725	75	45	1000	30	12.7	950	42
L2	2625	68	45	1000	30	12.7	950	42
L3	2225	50	20	400	30	7.3	600	42
P1	2525	65	30	1000	38	7.3	600	42
P2	2525	65	30	1000	38	7.3	600	42
N1	2225	50	20	400	30	7.3	600	42
				Gap				
L1	-1359	-35	-33	-749	-17	-8.5	-721	-23
L2	-1171	-25	-31	-726	-17	-8.4	-703	-24
L3	-848	-10	-7	-120	-17	-3.0	-370	-22
P1	-1043	-23	-16	-702	-24	-2.9	-363	-25
P2	-1161	-23	-18	-736	-25	-3.1	-388	-22

Cultural practices

During Pregnancy

- Pregnancy Information

CHARATERSTICS	Pregnant women (240)	
	0-5 Months	6-10 Months
Pregnancy first informed to		
Mother in Law	65	54.2
Husband	21.7	26.7
Others	13.3	19.1
Pregnancy celebration	13.3	30
Pregnancy celebration at aaganwadi center	6.7	13.3
Women Received food items from aaganwadi center	55.8	71.7
Items received		
Daliya	61.2	48.8
Coconut	25.4	44.2
Others (khichari, soyabean, sattu, wheat flore etc.)	26.9	10.5

Cultural Practices During Pregnancy

- Major Food Taken

Major food taken during pregnancy	Pregnant women(240)	
	0-5 Months	6-10 Months
Khichari	50	57.5
Boiled Milk	45.8	45.8
Goat Milk	13.5	15.8
Green Gram	29.2	26.3
Kangani Halwa	36.1	35.8

Major Food Avoided

Major food avoided during pregnancy	Pregnant Women (240)	
	0-5 Months	6-10 Months
Raw papaya	60	61.7
Sour Foods	24.2	30
Maize	17.5	20.8
Rice	27.5	28.3

Cultural practices During Lactation

- Food Items Received from Anganwadi Center

Characteristics	Lactating Women (360)		
	0-5 Months	6-11 Months	12-23 Months
Women received food items from anganwadi center	60.8	66.7	71.1
Items Received			
Khichari (boiled rice with mix vegetables)	12.3	6.2	12.8
Daliya (oats)	86.3	86.2	81.4
Others	9.6	15.0	22.1

- Diet during Lactation than Usual Food

Diet During Lactation than Usual Food	Lactating women (360)		
	0-5 Months	6-11 Months	12-23 Months
More than usual	45.0	36.7	26.7
Same/less/don't know	55.0	63.3	73.3
Any special food taken to increase breast milk	55.8	60.0	69.2

Cultural practices During Lactation

• Major Food Taken

Food Taken During Lactation	Lactating women (360)		
	0-5 Months	6-11 Months	12-23 Months
Wheat Chapati	65.0	59.2	70.8
Jaggery/Bajra Raab	17.5	19.2	26.7
Jaggery water	10.0	11.7	9.2
Sweet Butter Milk	25.0	22.5	30.8
Money constraints	76.7	78.3	77.5

Food Avoided

Food Avoided During lactation	Lactating women (360)		
	0-5 Months	6-11 Months	12-23 Months
High Salt Intake	30.8	23.3	34.2
Chillies	45.8	41.7	50.0
Maize	16.7	11.8	14.2
Chutney/ Sour butter milk	20.0	18.3	20.0

Case Studies

- **Case Study 1:** This study collected by the researcher through a confidential in-depth interview with a pregnant and lactating woman. These women are belonged from Muslim community. They said that they don't eat any food items without their husband Permission. They also said they have too much fear of their husband. They said their husband doesn't provide any special food items during their pregnancy and lactation period. They take as usual foods Like "Chapati and Chatuney" during their period. It reflects that they take only energy intake food that is not in proper quantity. They don't take any special food during their period.
- **Case Study 2:** The researcher conducted an FGD (Focus Group Discussion) with a 5 women in group. These women said about the problems of their village i.e. lack of water is a major constraint, no availability of transportation facility, poor and lack of employment opportunity. It reflects that due to lack of infrastructure and employment opportunity women don't avail the nutritive food items from market.

Conclusion

- The extent of dietary energy and protein inadequacy was more pronounced, reiterating the fact that, it is essentially 'food gap'. The intake of various micronutrients, particularly iron, calcium, Fats, vitamin A, Vitamin 12 and Zinc was grossly deficient with comparison to ICMR guidelines, which is in line with inadequate intake of protective foods.
- Study also indicated that all women under the study have some restriction on their diet due to cultural practices. Money was also a constraint so that Many nutritive food items avoided by the all women.

Suggestion

- The study highlights the need for necessary steps for more community participation in various developmental programmes for improve literacy rate among females. Nutrition Education has to be strengthened through department of health and ICDS, to bring awareness and behavioral change for better nutrition practices to improve the nutritional status of mother and child.
- Indian context is required to demonstrate the effectiveness of role of ASHAs in nutrition counseling.
- Develop a mobile Based Nutrition information app in suitable Language and create awareness about this app through the help of ASHAs, Anganwadi workers and Self Help Groups (SHG), to guide women diet intake and remove beliefs regarding food restriction had no scientific explanation.
- The National Rural Health Mission (NRHM) envisages that there will be village health and nutrition days where in the ANM and AWW will work together and provide the needed health and nutrition care.
- The study observed that lack of money was the main reason for not buying nutritious food, to provide more Nutritious food during pregnancy and Lactation period through Department of Health, ICDS and NHM with joint coordination.

Thank
You