Health Status of Children: Does Living in a Community Matter?

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Background

- **Almost 11 million children die each year from preventable and curable diseases**

- **The majority of these children live in low income countries and belong to disadvantaged socioeconomic groups**

- **Poverty strongly correlates with health and results in inequalities in health status and access to health care**

- **Inequalities in health are almost always to the disadvantage of the poor**

- **Malnutrition is among the key determinants of poor child health and premature mortality among children in developing countries**

Objective

To look at health inequalities and investigate child health status across gender, household socioeconomic status and community status

Methodology (cont…)

Study population & data source

- ❑ **0-14 years old children of (Matlab) Rural Bangladesh**

- ❑ **Data derived from Matlab Health and Socioeconomic Survey (MHSS)**

Dependent variables

- ❑ **Acute & Chronic Morbidity**

- ❑ **Nutritional Status (Stunting & Underweight)**

Independent variables

- ❑ **Gender**

- ❑ **Household Socioeconomic Status (SES)**

- ❑ **Community / Village Status**

Methodology (cont…)

Classification of children

- ❑ **6,392 children-classified into poor and rich**

- ❑ **Principal component and factorial analysis method**

- ❑ **Ranking of households on the basis of household ownership of assets and dwelling conditions**

Classification of communities

- ❑ **140 Communities/villages**

- ❑ **classified into three groups (better off, medium and worse off)**

- ❑ **46 worse off communities, 48 medium communities and 46 better off communities**

Methodology

Community level infrastructure / facilities

- Schools *(High school , primary)*

- Health *(FWC, FWA, satellite clinic, health worker, pharmacy, hospital (THQ Hospital /Matlab Health Centre-5 km)*

- Market, post office, financial/credit organization, electricity, water supply, drainage system

- Bus stand and nearest town -5 km

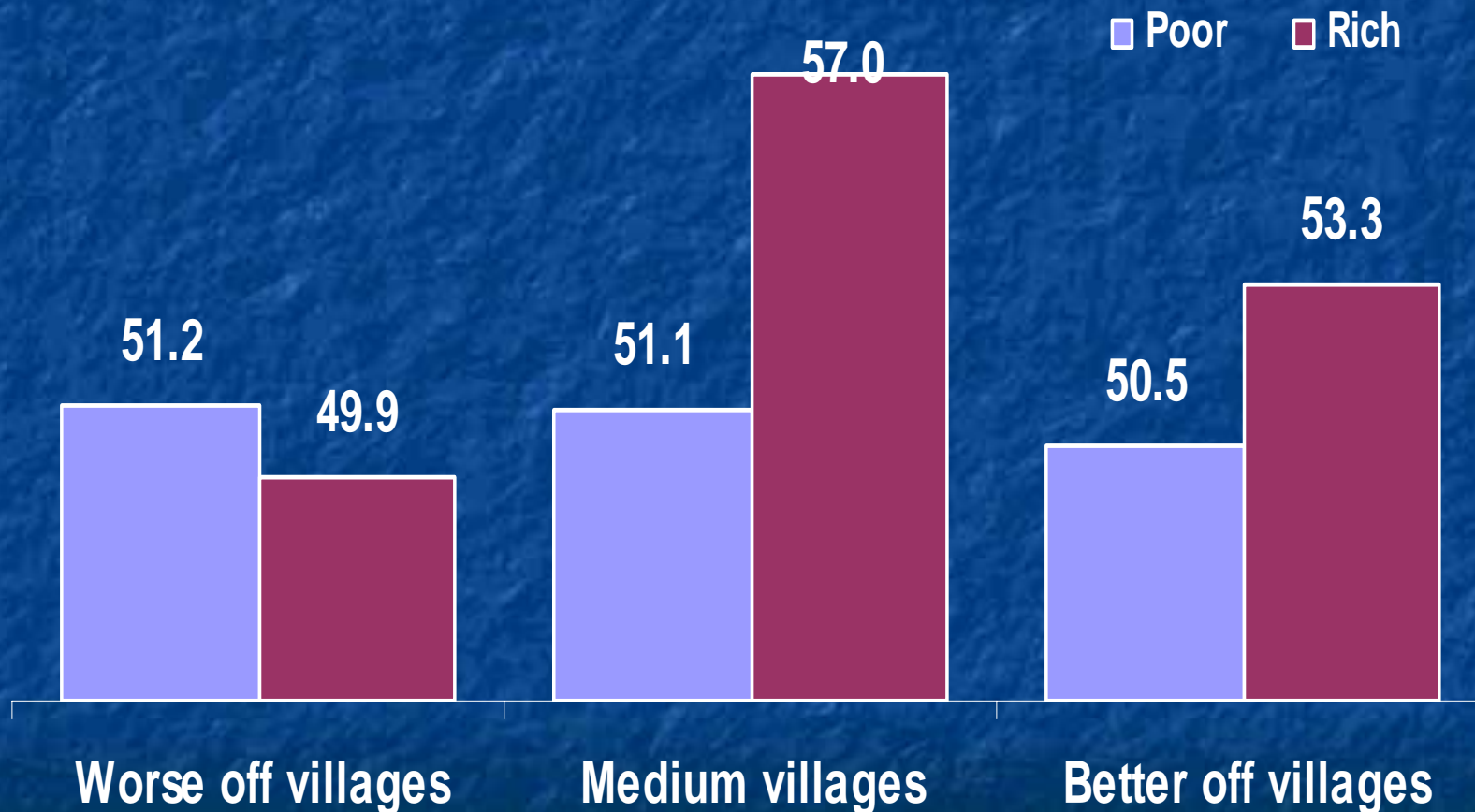**Distribution of children into three groups of communities**

- 21.1% belong to worse off communities

- 33.3% belong to medium communities

- 45.6% belong to better off communities

Prevalence by Gender, Household Socio Economic Status

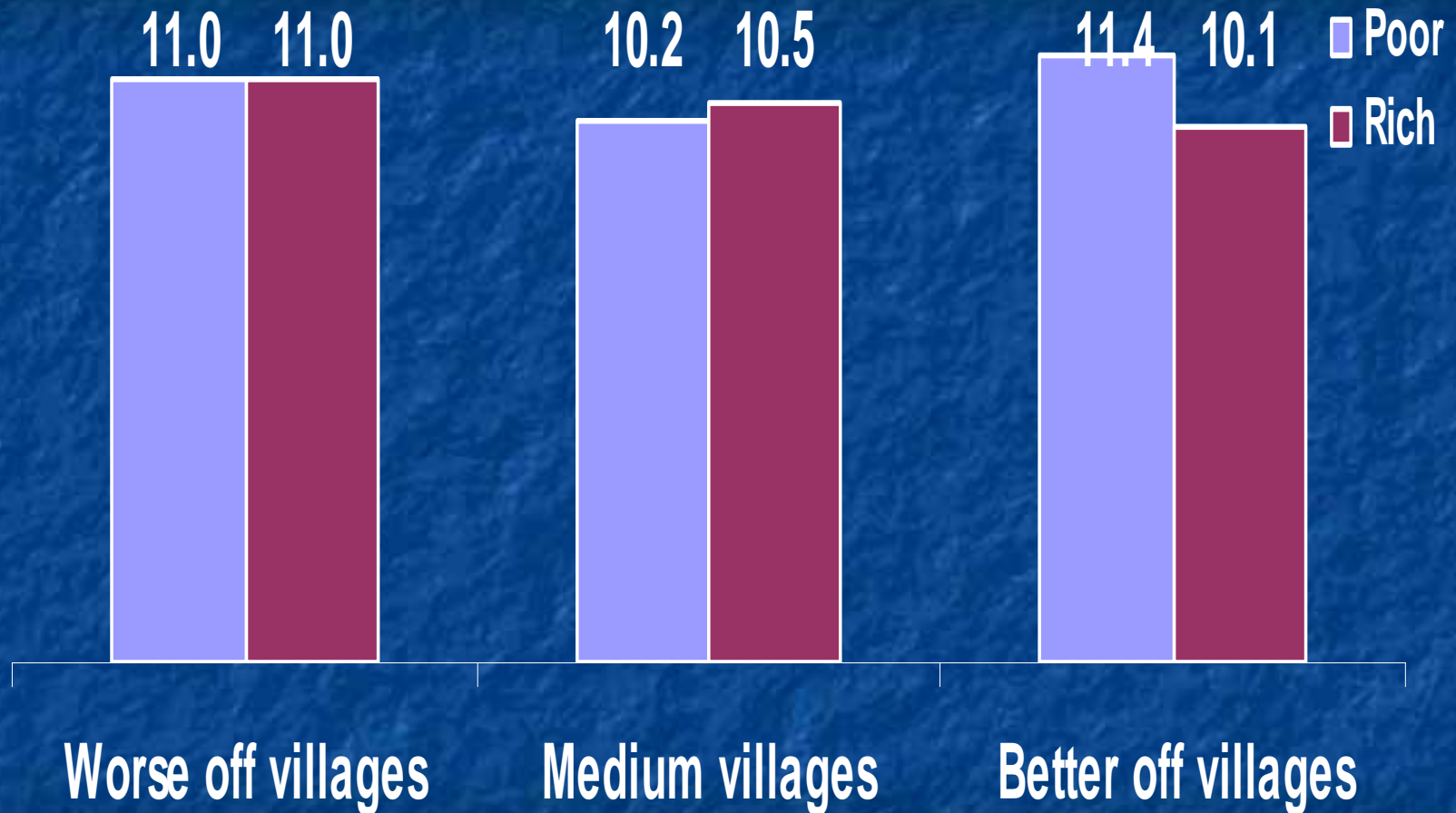|	% Distribution of children	Prevalence of sick (one month acute morbidity)	Prevalence of sick (three months chronic morbidity)	Prevalence of stunted (%)		Prevalence of underweight (%)	
	0-14 years old	0-14 years old	0-14 years old	under 5 years old	5-14 years old	under 5 years old	5-14 years old
N	6392	3327	677	1268	3520	1268	3520
%	100.0	52.0	10.6	25.2	54.1	40.0	57.6
Gender							
Male	50.8	53.2	11.0	22.5	52.2	37.0	59.7
Female	49.2	50.9	10.1	28.1	56.1	43.2	55.6
Household Socioeconomic Status							
Poor	47.2	50.8	10.9	29.2	61.4	43.9	65.4
Non-poor	52.8	53.8	10.4	20.2	47.6	34.9	50.4

Note: Number of children for various variables may differ due to missing data.

Acute Morbidity by Household & Community Status

Poor ☐ Rich ☐

- 51.2 — Worse off villages (Poor)
- 49.9 — Worse off villages (Rich)
- 51.1 — Medium villages (Poor)
- 57.0 — Medium villages (Rich)
- 50.5 — Better off villages (Poor)
- 53.3 — Better off villages (Rich)

Worse off villages   **Medium villages**   **Better off villages**

Prevalence is highest in medium communities (54.2%)
Gap between poor and non-poor is widest in medium villages

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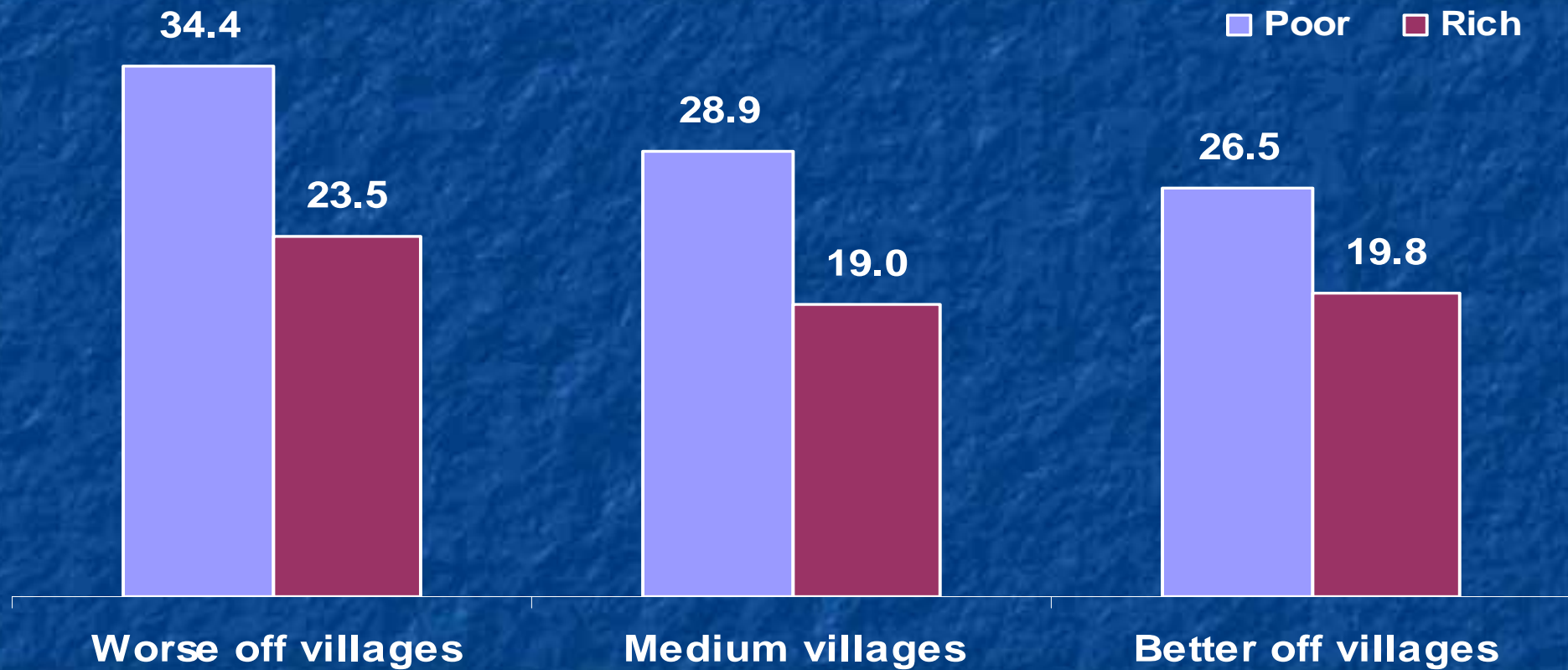Prevalence of Under 5 Stunted Children by Household & Community Status

34.4 — Worse off villages Poor
23.5 — Worse off villages Rich
28.9 — Medium villages Poor
19.0 — Medium villages Rich
26.5 — Better off villages Poor
19.8 — Better off villages Rich

Poor Rich

Worse off villages   Medium villages   Better off villages

Prevalence is highest in worse off communities (30.1%)
Gap between poor and non-poor is widest in worse off villages

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Prevalence of Stunted Children aged 5-14 by Household & Community Status

Poor
Rich

63.5   50.3

61.2   52.7

60.0   43.4

Worse off villages   Medium villages   Better off villages

Prevalence is highest in worse off communities (57.7 %)
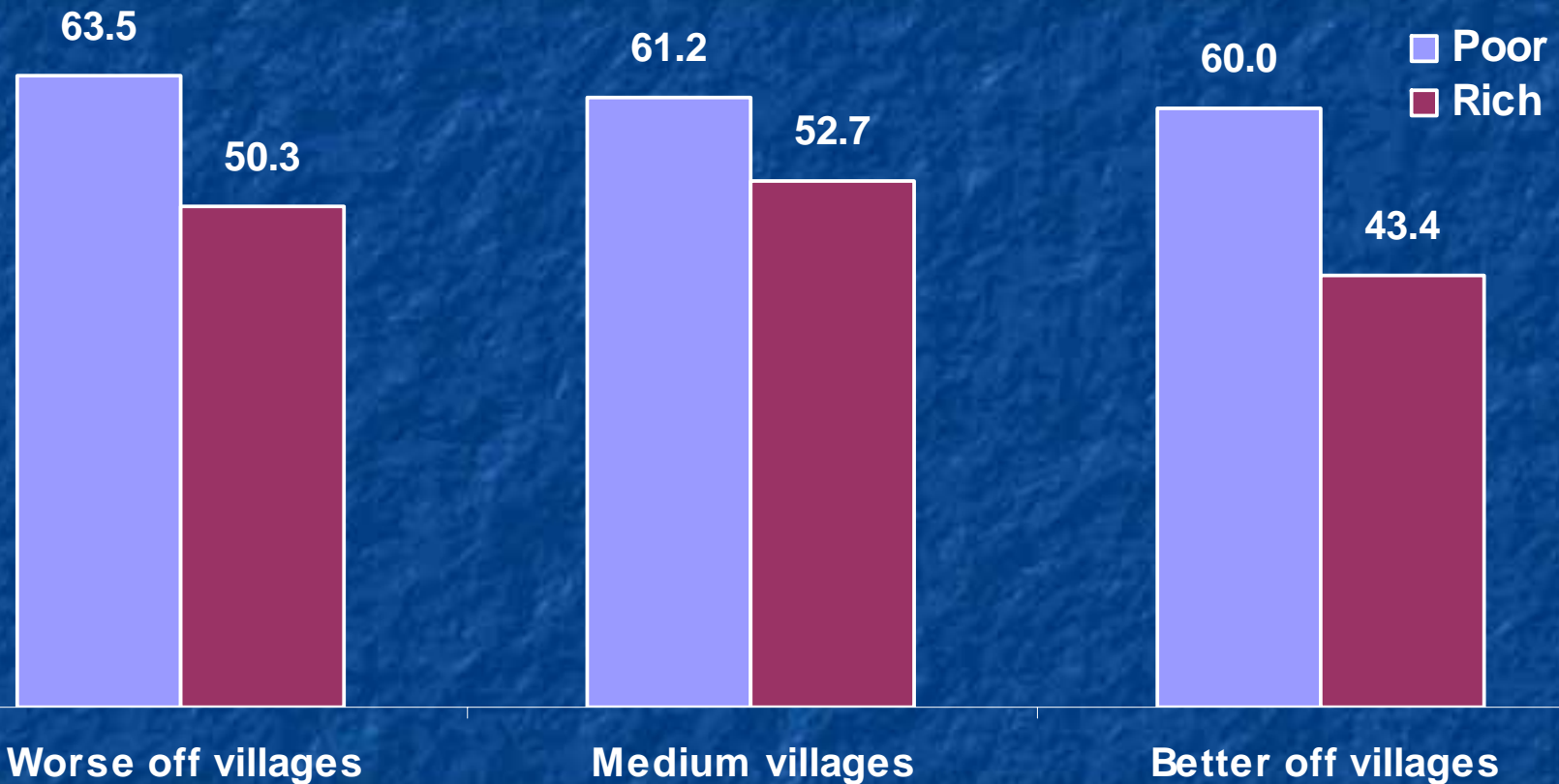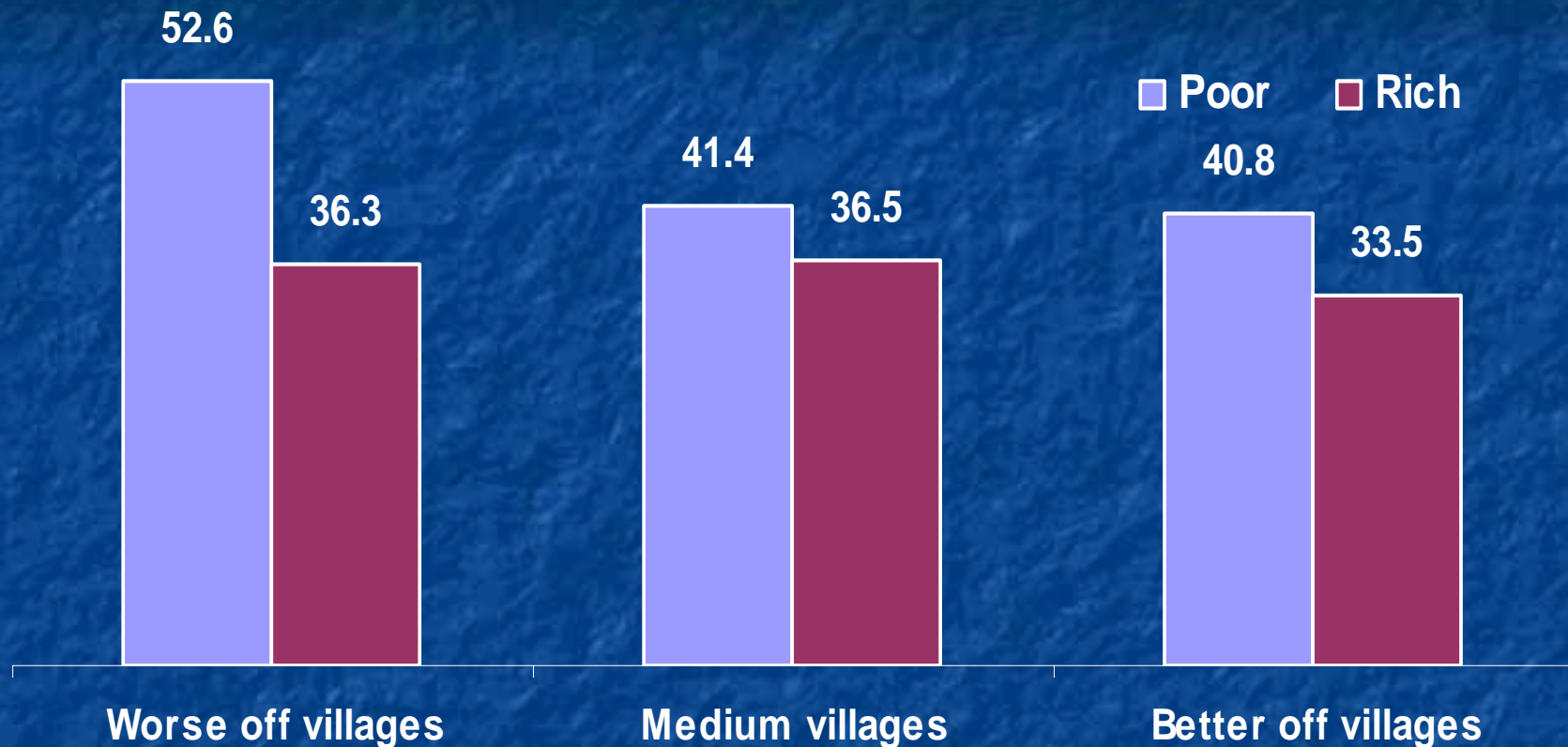Gap between poor and non-poor is widest in better off villages

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# Prevalence of Under 5 Underweight Children by Household & Community Status

Poor ☐   Rich ☐

Worse off villages — 52.6 (Poor), 36.3 (Rich)

Medium villages — 41.4 (Poor), 36.5 (Rich)

Better off villages — 40.8 (Poor), 33.5 (Rich)

Prevalence is highest in worse off communities (46.1 %)

Gap between poor and non-poor is widest in worse off villages

Malnourished (Underweight) Children aged 5-14 by Household & Community Status

Poor

Rich

65.8

51.6

67.4

53.5

63.4

48.1

Worse off villages

Medium villages

Better off villages
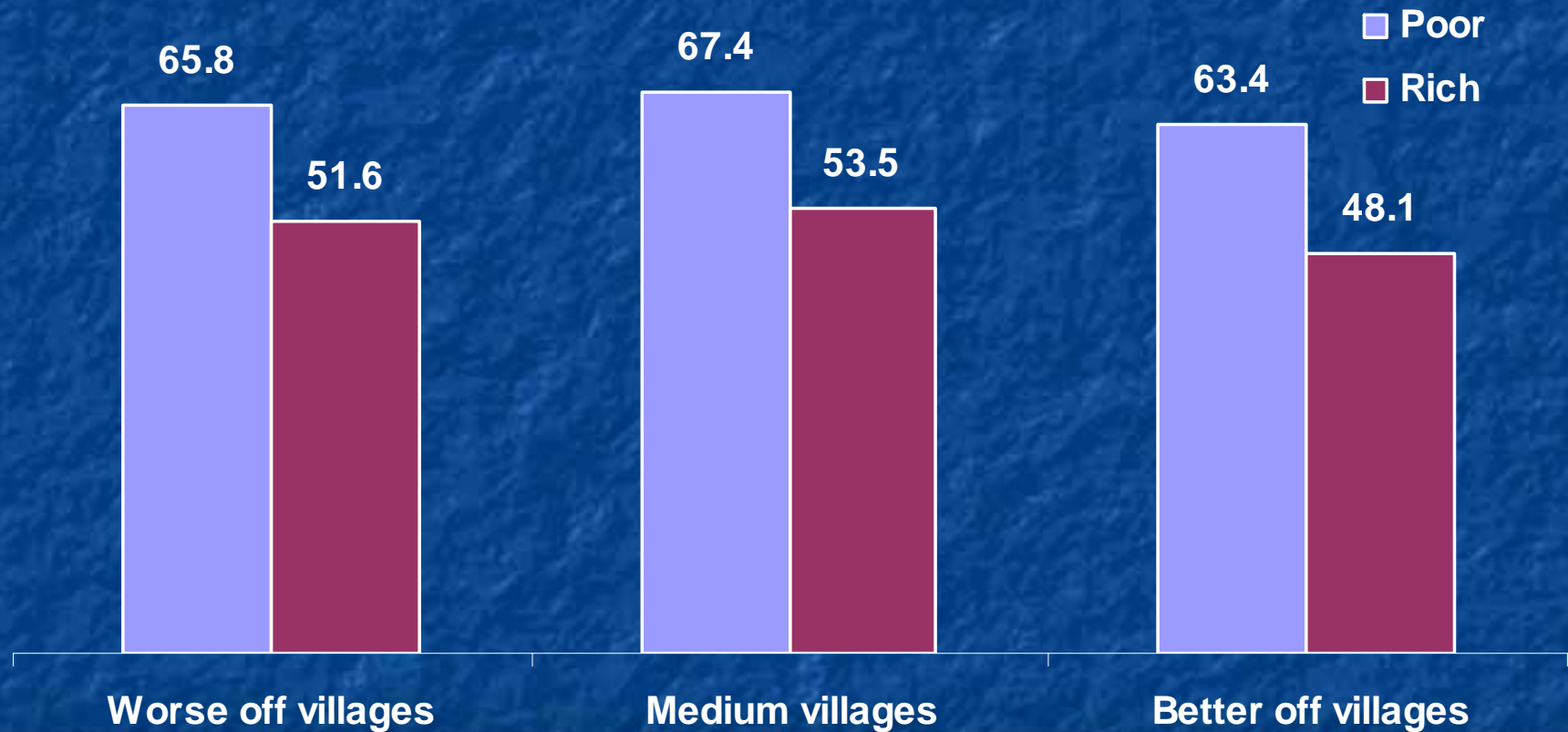
Prevalence is highest in medium communities (60.3 %)

Gap between poor and non-poor is widest in better off villages

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Logistics Regression Results of Morbid Children aged 0-14; OR (95% CI)

	Acute Morbidity	Chronic Morbidity		
Gender (Female)	0.90 ***	0.9		
	(0.82-0.99)	(0.77-1.06)		
Household SES (Rich)	1.15 ***	0.954		
	(1.02-1.25)	(0.80-1.11)		
Age Group (5-14)	0.41 *	1.02		
	(0.37-0.46)	(0.85-1.22)		
Community/Village Status				
Medium	1.15 ***	0.94		
	(0.99-1.32)	(0.76-1.18)		
Better off	1.05	0.97		
	(0.92-1.20)	(0.79-1.20)		

*Note: * Significant at 0.01; ** Significant at 0.05; *** Significant at 0.10*
Odd ratios are in parenthesis

Logistics Regression Results Malnourished Children aged 0-14; OR (95% CI)

	Under 5 Stunting	5-14 Stunting	Under 5 underweight	5-14 Underweight
Gender (Female)	1.40 **	1.17 **	1.34 **	0.83 *
	(1.08-1.81)	(1.02-1.34)	(1.07-1.69)	(0.73-0.96)
Household SES (Rich)	0.62 *	0.59 *	0.70 **	0.55 *
	(0.48-0.81)	(0.51-0.67)	(0.56-0.89)	(0.47-0.63)
Community/Village Status				
Medium	0.75	0.99	0.75 ***	1.09
	(0.53-1.07)	(0.82-1.20)	(0.55-1.03)	(0.90-1.32)
Better off	0.72 ***	0.79 **	0.71 **	0.89
	(0.52-1.01)	(0.66-0.95)	(0.52-0.95)	(0.74-1.07)

*Note: * Significant at 0.01; ** Significant at 0.05; *** Significant at 0.10*
Odd ratios are in parenthesis

Morbidity Status
Logistics Regression Results (Children aged 0-14)

	Acute Morb	Medic Rec	Chronic Morb	Medic Rec
Gender (Female)	-0.100***	-0.180**	-0.100	-0.357**
	0.905	*0.835*	*0.905*	*0.700*
Household SES (Rich)	0.138***	0.316*	-0.056	0.315***
	1.148	*1.372*	*0.946*	*1.371*
Age Group (5-14)	-0.881*	-0.538*	0.017	-0.773*
	0.415	*0.584*	*1.017*	*0.461*
Community/Village Status				
Medium	0.140***	-0.134	-0.056	0.156
	1.15	*0.875*	*0.945*	*1.169*
Rich	0.049	-0.047	-0.027	0.308
	1.051	*0.954*	*0.974*	*1.136*

*Note: * Significant at 0.01; ** Significant at 0.05; *** Significant at 0.10;*

Nutritional Status
Logistics Regression Results (Children aged 0-14)

	Under 5 Stunting	5-14 Stunting	Under 5 underweight	5-14 Underweight
Gender (Female)	0.334**	0.155**	0.297**	-0.182*
	1.397	1.168	1.345	0.833
Household SES (Rich)	-0.472*	-0.532*	-0.353**	-0.606*
	0.624	0.588	0.703	0.546
Community/Village Status				
Medium	-0.287	-0.006	-0.288***	0.083
	0.75	0.994	0.75	1.087
Better off	-0.327***	-0.233**	-0.349**	-0.116
	0.721	0.792	0.706	0.89

*Note: * Significant at 0.01; ** Significant at 0.05; *** Significant at 0.10;*

Findings…

- Gender has *significant association with* prevalence of acute morbidity, stunted and underweight children

- Household SES has *significant association with* prevalence of acute morbidity, stunted and underweight children

- Community/village status - *significant association with* prevalence of acute morbidity, stunted and underweight children

- Children of worse off communities were *more* likely to be morbid due to chronic illness; stunted and underweight compared to their cousins in better off communities

- Poor-rich gap -widest *mostly* in better off communities

- Extreme poor were *more* likely to be stunted and underweight compared to extreme rich

Recommendations

- Reduction of morbidity and malnutrition depends on poverty reduction, raising people's living standards by increasing access to clean drinking water and adequate sanitation

- Pro-poor health and infrastructure sector spending in remote rural and worse off communities

- Health intervention programs which are pro-poor in impact and mainly focus on females, poor children and those living in worse off communities

- Expansion of primary health care services to remote rural and worse off communities

- Focusing on health education and creating awareness of improved diet, hygiene practices, female health through mass media

THANK YOU