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Poverty and Expenditure in Northern Ghana in 2015

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Context

Feed the Future Initiative is USG food security and poverty alleviation program driven by country strategic plans

FTF Initiative tracks intervention investments' performance using a number of indicators

Ghana's baseline indicators established in 2012 and midline study tracking progress conducted in 2015

This meeting is reporting progress and providing new information at the district level



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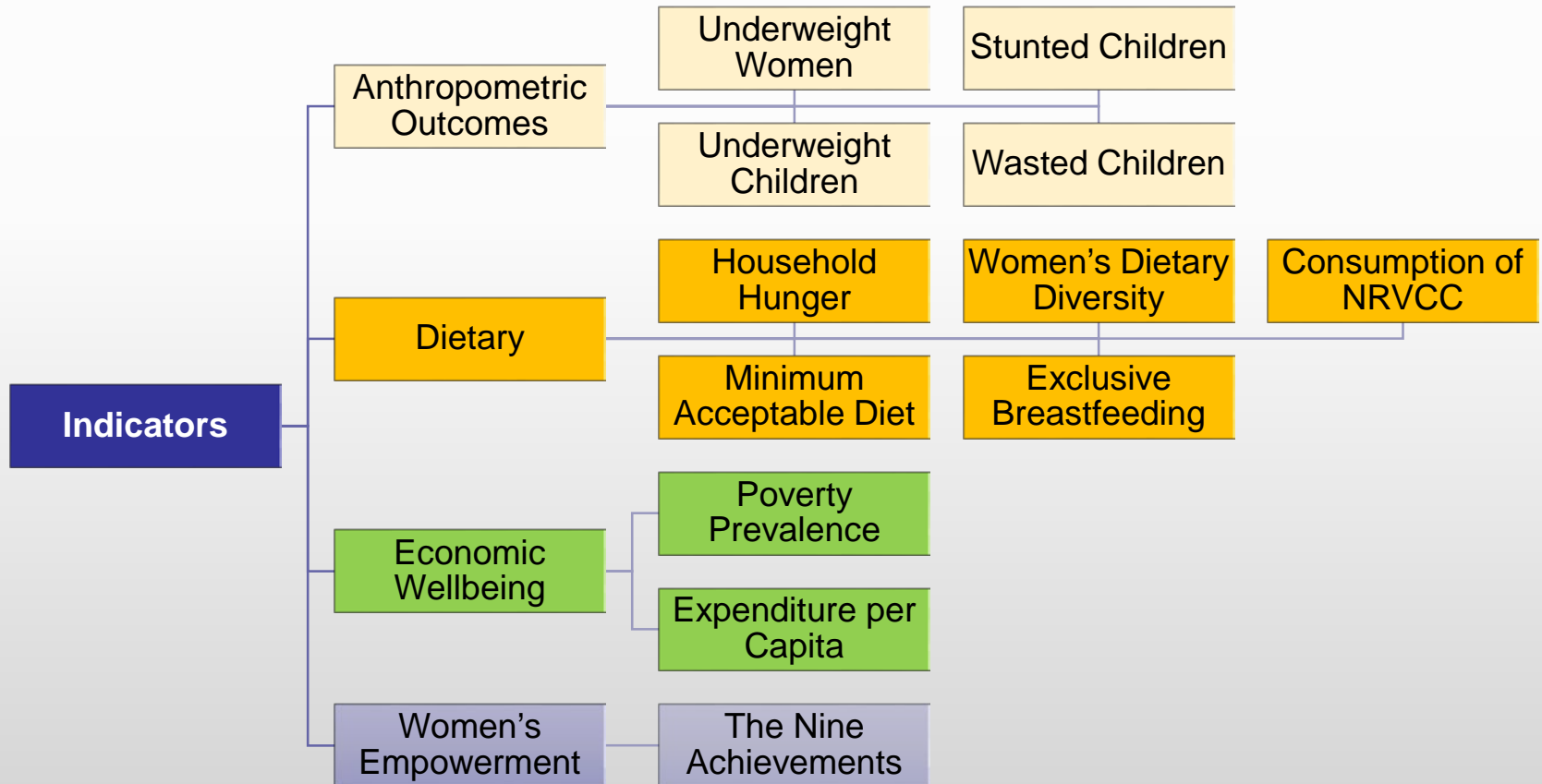
2015 Survey Structure

Reporting changes in the indicators from 2012 based on original 4,410 households

Reporting district level results for 6,700 households across the ZOI



The Feed the Future Indicators





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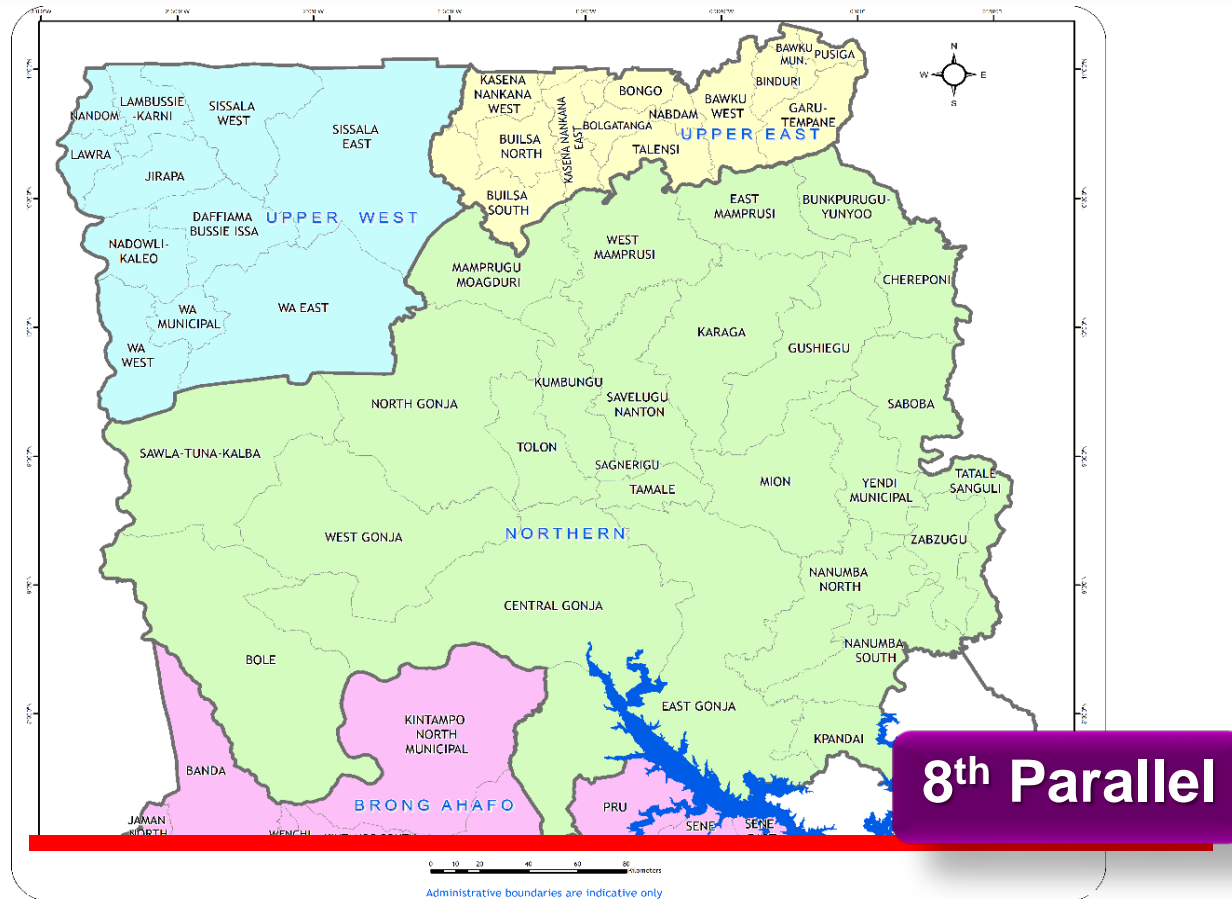
Summary

Demographics



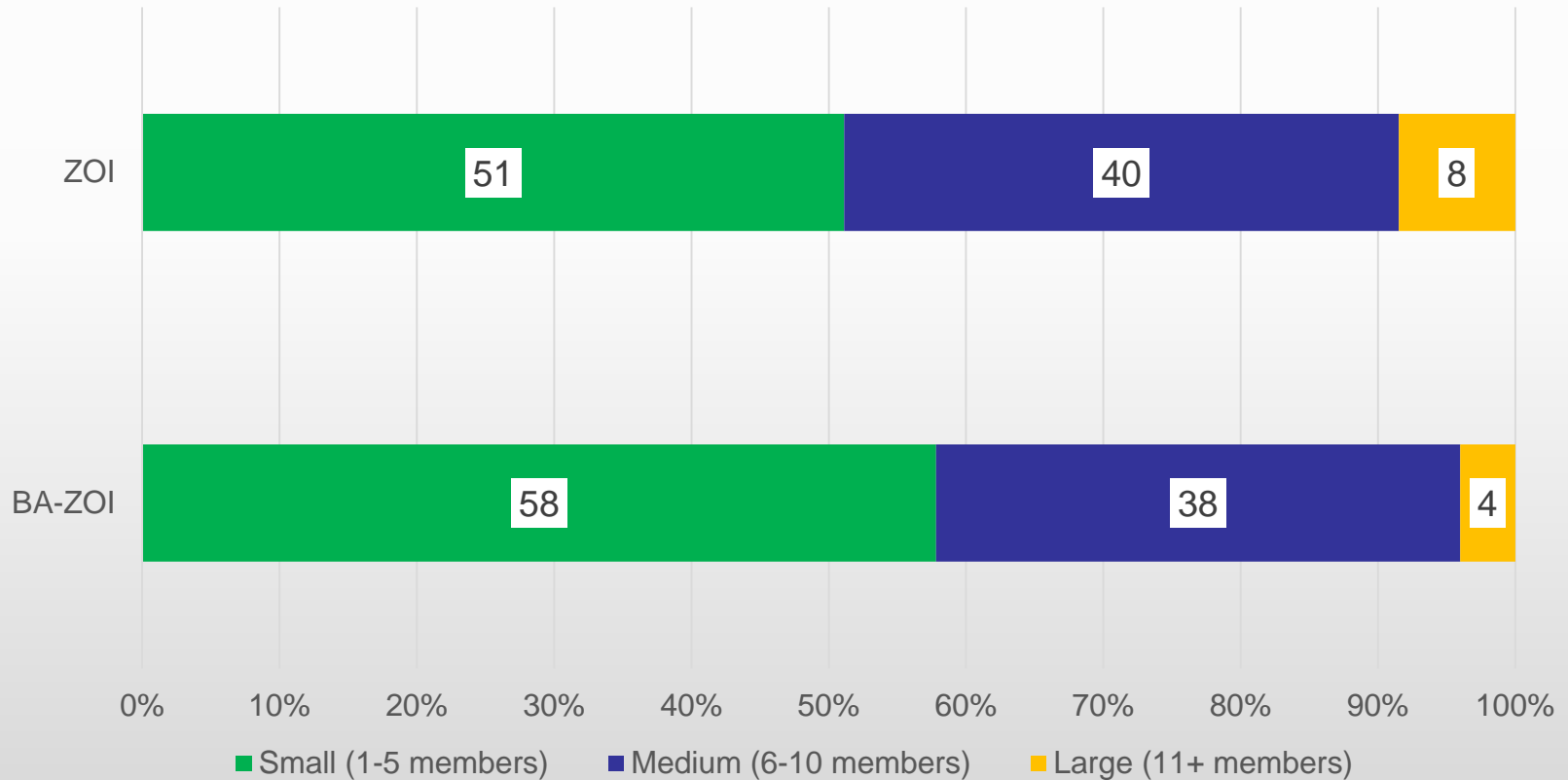
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The Zone of Influence



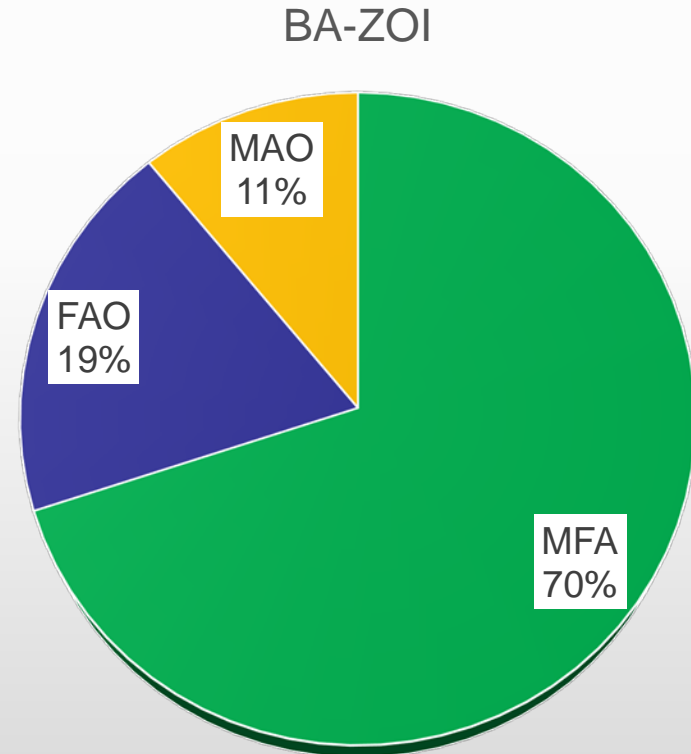
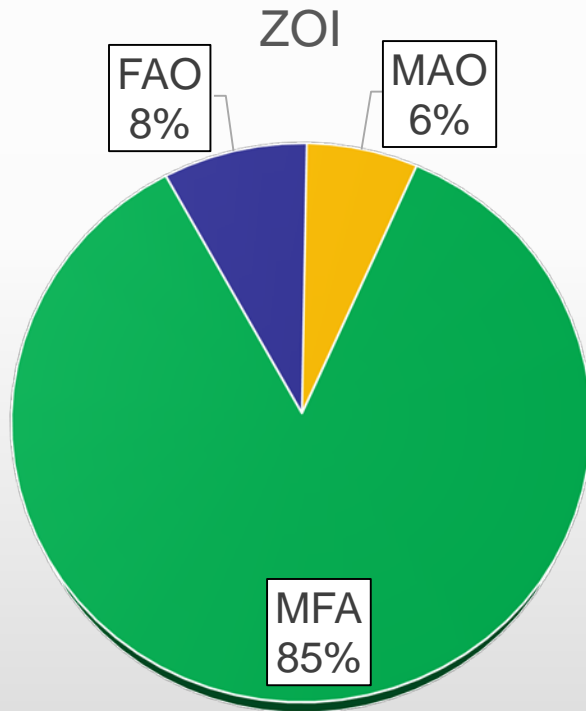


Household Size Distribution



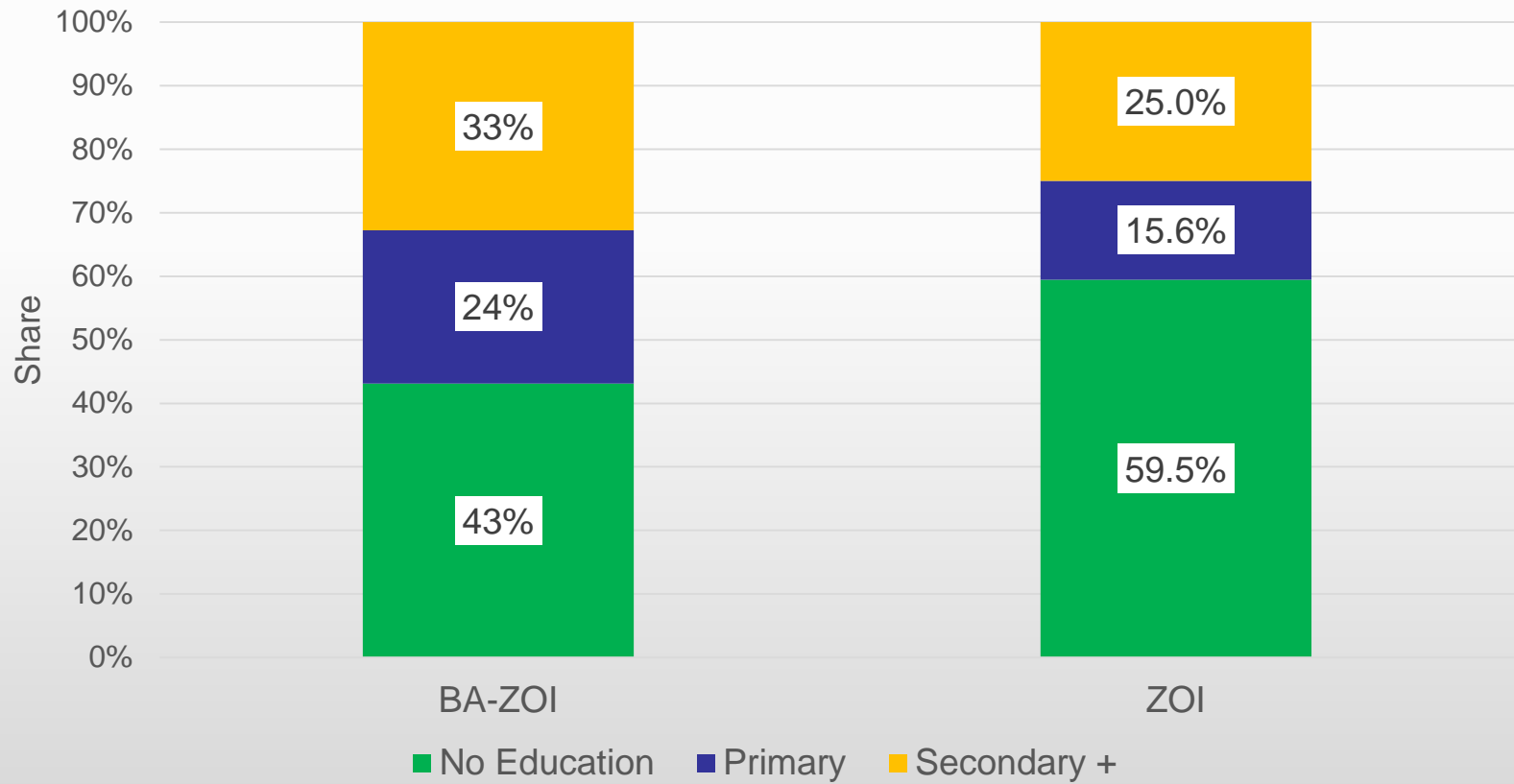


Distribution by Gendered Household Types





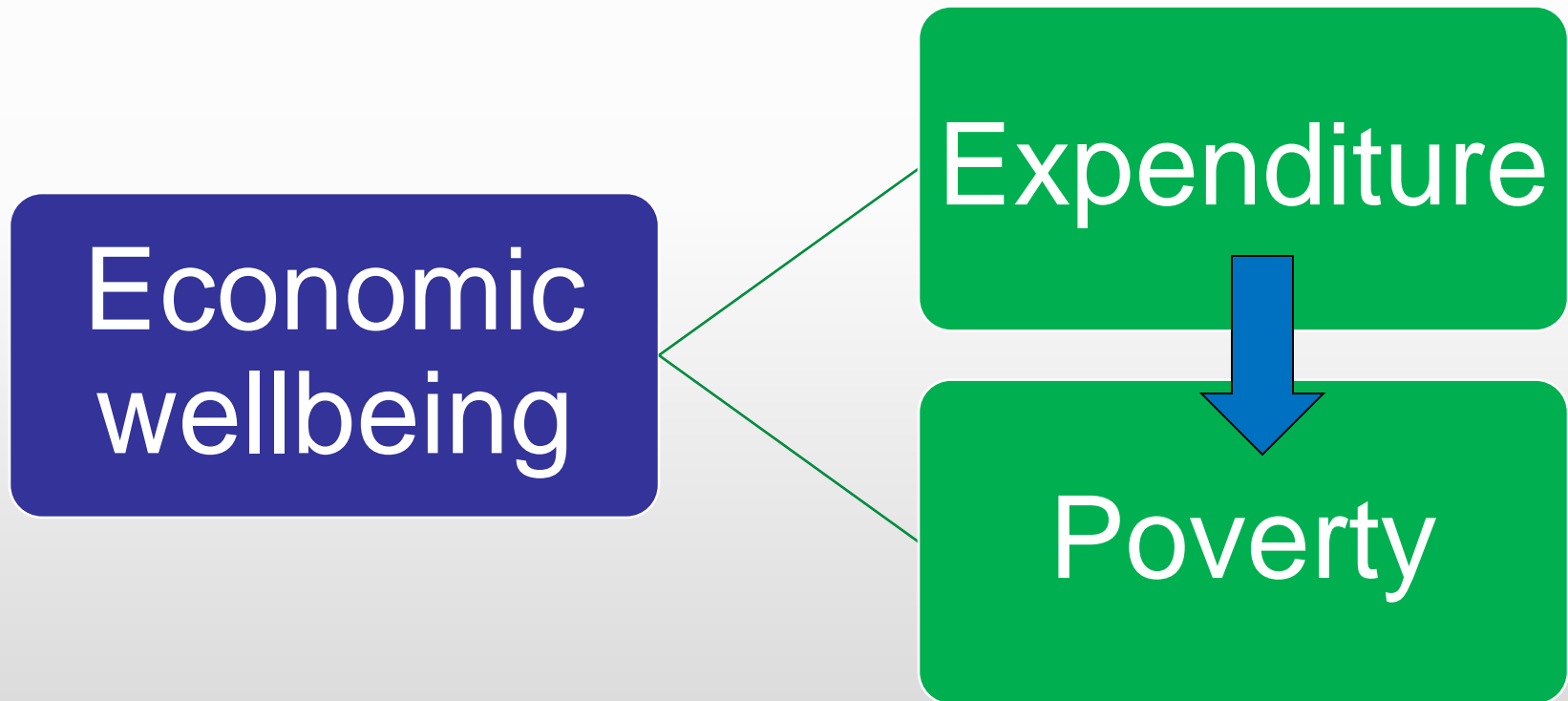
Education





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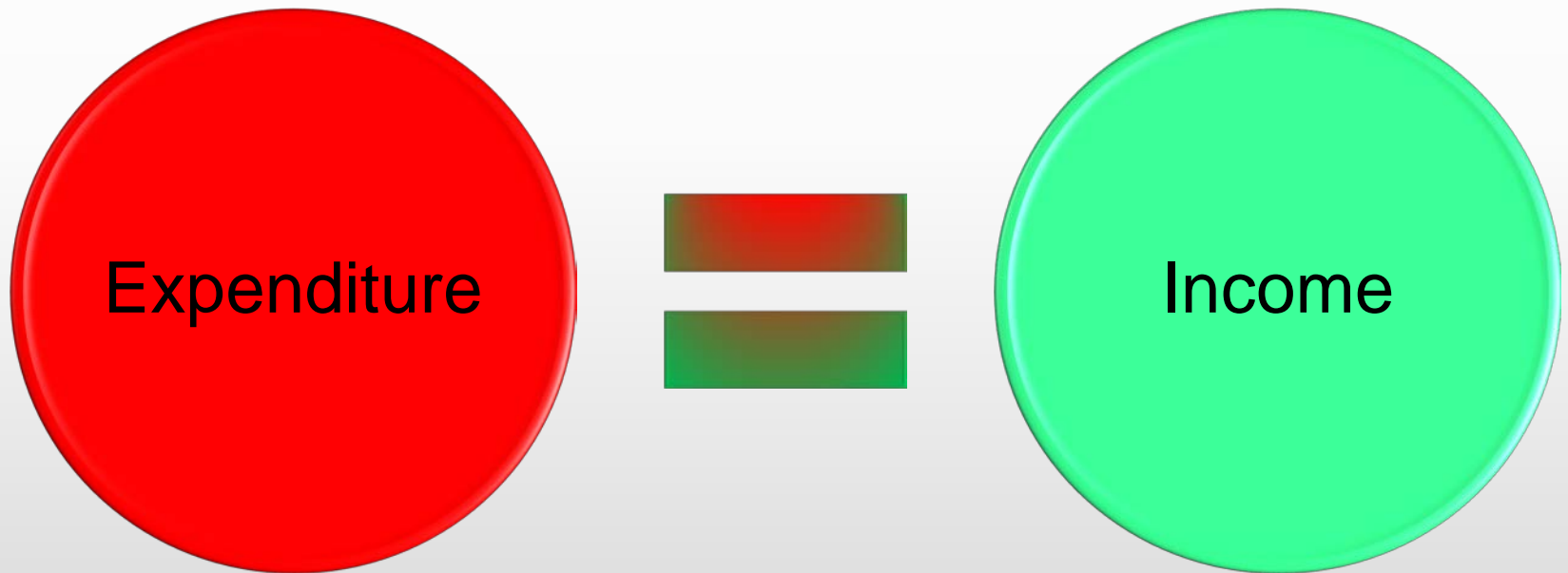
Our Focus = Households





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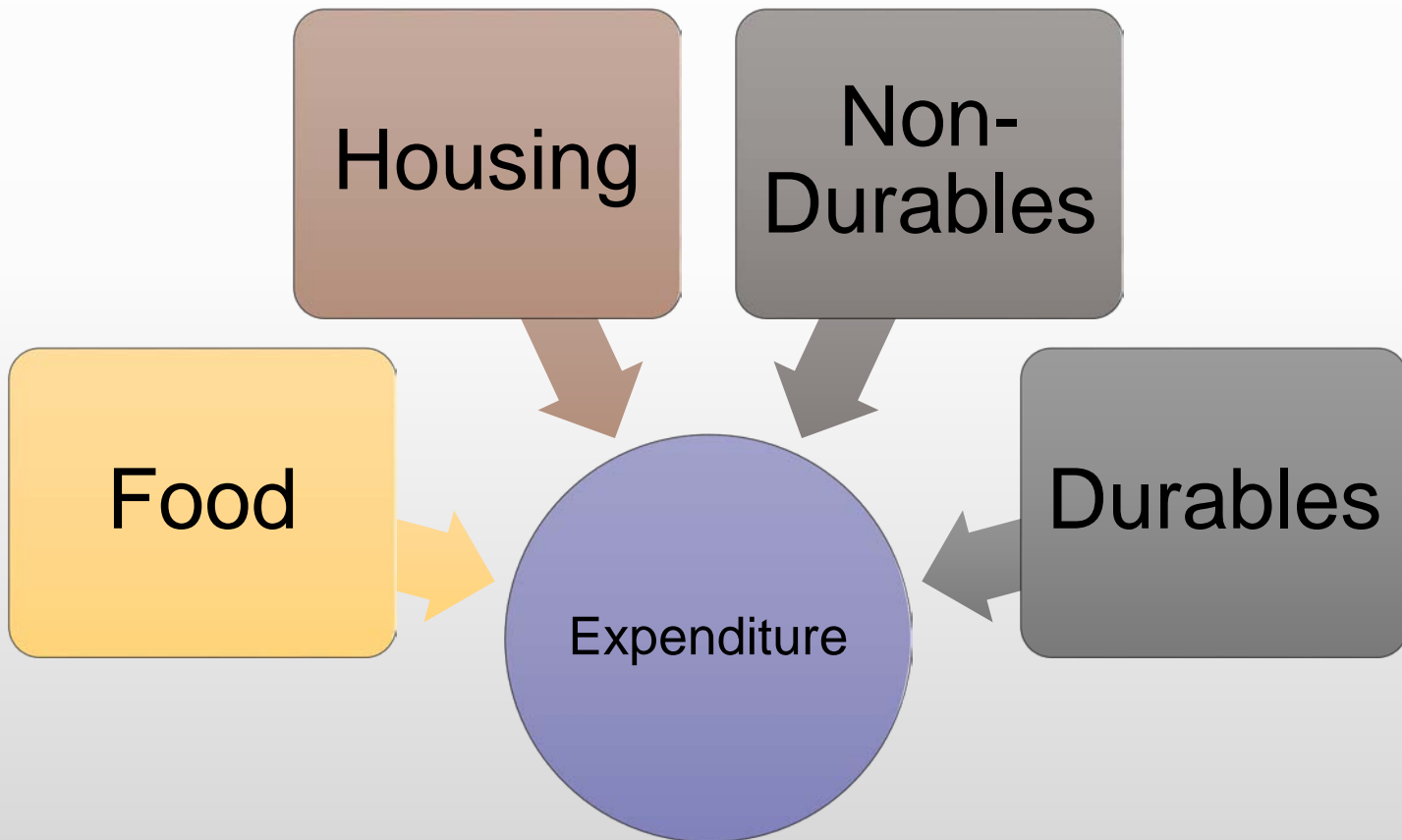
Basic Assumption





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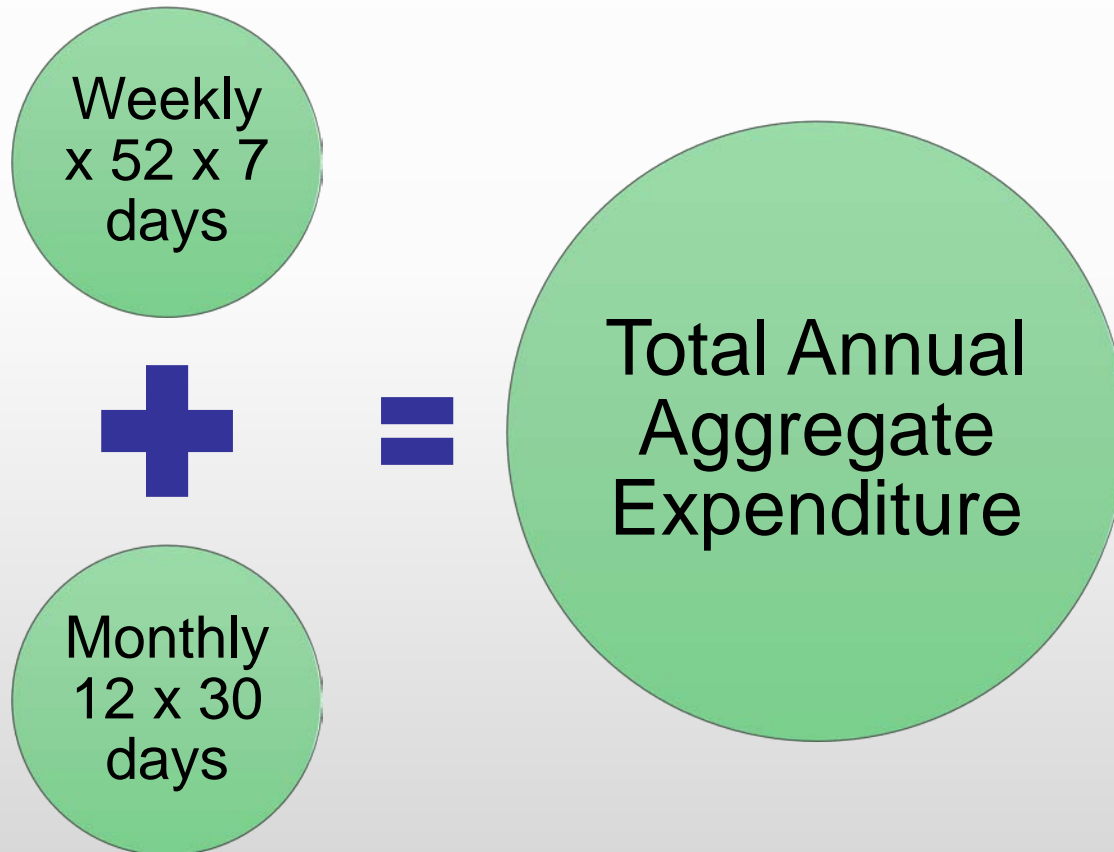
Components of Expenditure = 256 items with different recall times





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Expenditure

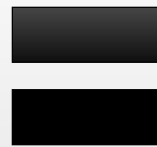




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Expenditure

Total
Annual
Aggregate
Expenditure
/ 365 days



Daily
Aggregate
Expenditure



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Expenditure

Daily
Aggregate
Expenditure
/ Household
Size



Average
Daily Per
Capita
Household
Expenditure



Expenditure in PPP

- Estimate is in 2015 Cedi value and has to be converted into international currency (PPP) for comparison
- Conversion addresses inflation and exchange rates using the following formula

$$X_{2005}^{PPP} = \frac{X_{2015}^{GHS} I_{2005}}{I_{2015} \rho_{2005}}$$

Where I is the CPI, X is the expenditure, ρ is the PPP conversion factor & subs are ref years & supers are currencies



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Establishing the Poverty Threshold



Not
Poor


$$X \geq \$1.25$$



Poor


$$X < \$1.25$$

Poverty is determined by per capita expenditure, which is dependent on household size



Expenditure and Poverty

Take two households, same total expenditure but different sizes

- Household I = 10 people; Household II = five people; total daily household expenditure = \$10 each
- Average per capita expenditures are respectively \$1 and \$2
- Prevalence of poverty at the household level (poverty line = \$1.25) is 50%
- At the individual level, the prevalence of poverty is 67%
- If HH I has 12 members, then individual headcount poverty rate is now 70.6% but remains unchanged under household level estimates

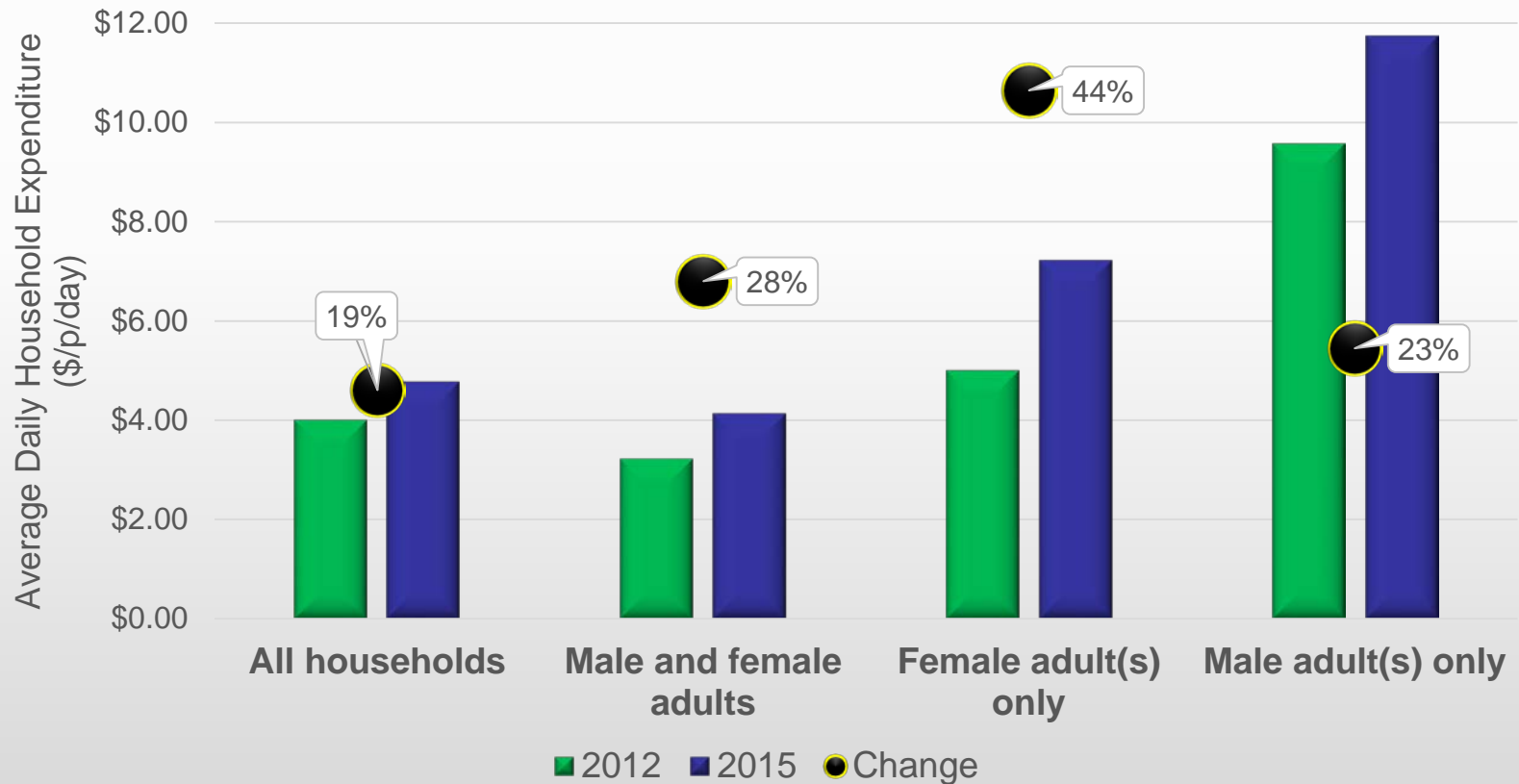


Expenditure and Poverty

- So, how many variables can affect the estimate?
 - The poverty threshold used
 - The calculation of expenditure and assumptions about prices, etc.
 - Time of year data are collected given vulnerability of poor to cyclical consumption patterns
 - The inflation rates used – determined by period of data collection and reference periods
 - The PPP conversion factor used
 - How the incidence is measured
 - The weights that are applied, which is determined by the sample size and the reference population being used
 - How outliers are treated

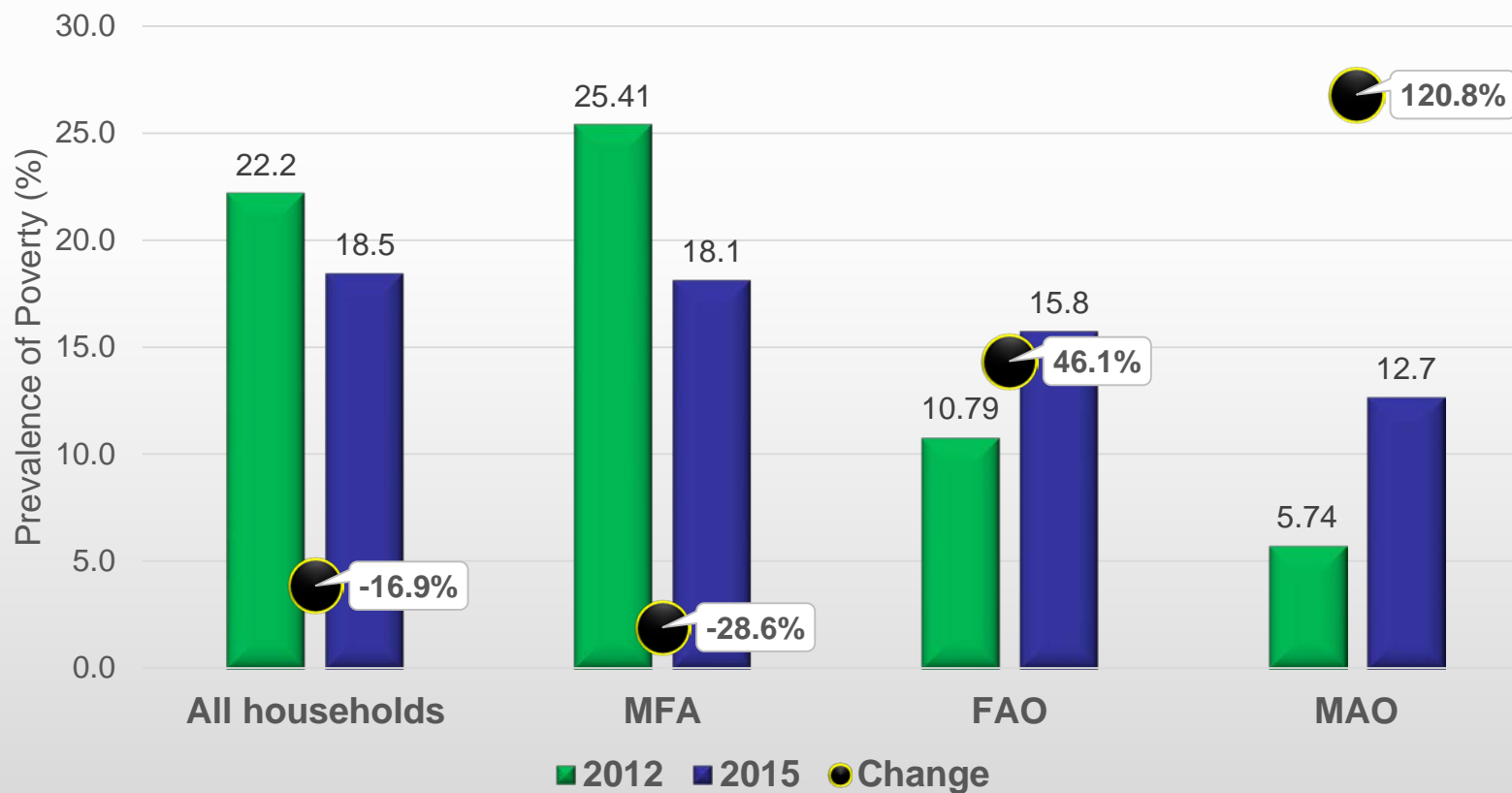


Change in Expenditure by Gendered Household Types



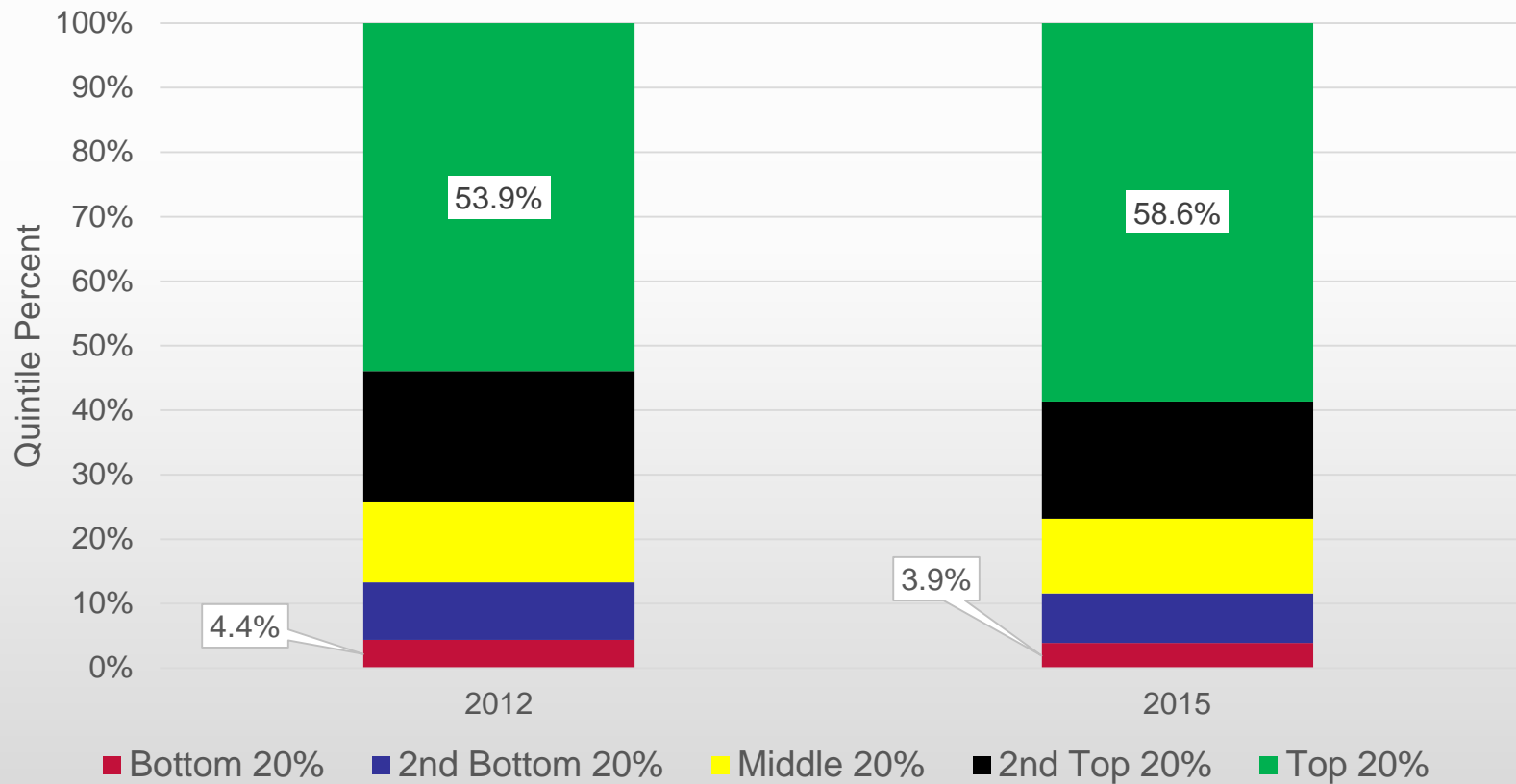


Change in Poverty by Gendered Household Types



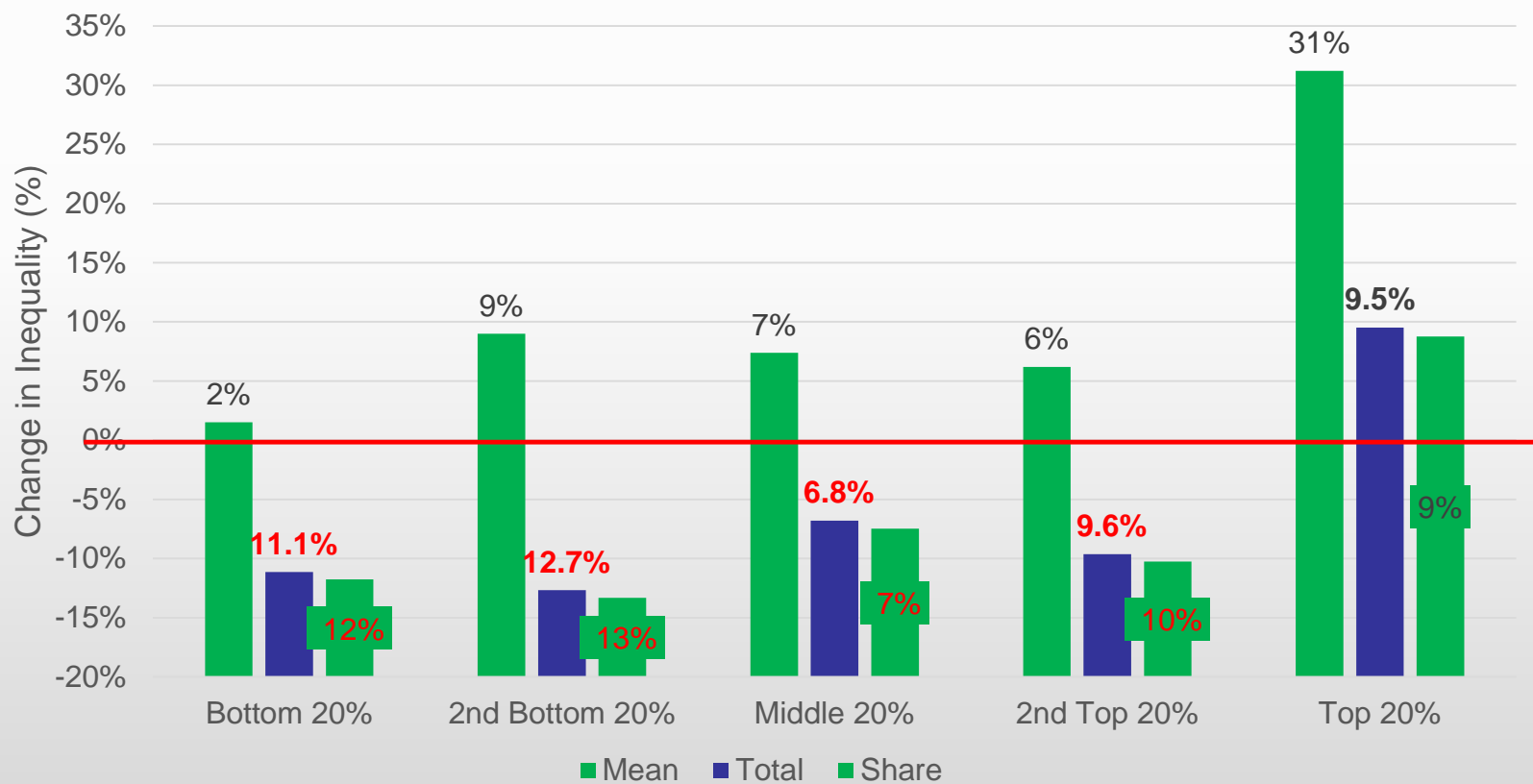


Inequality Indicator: Distribution of Consumption by Quintiles



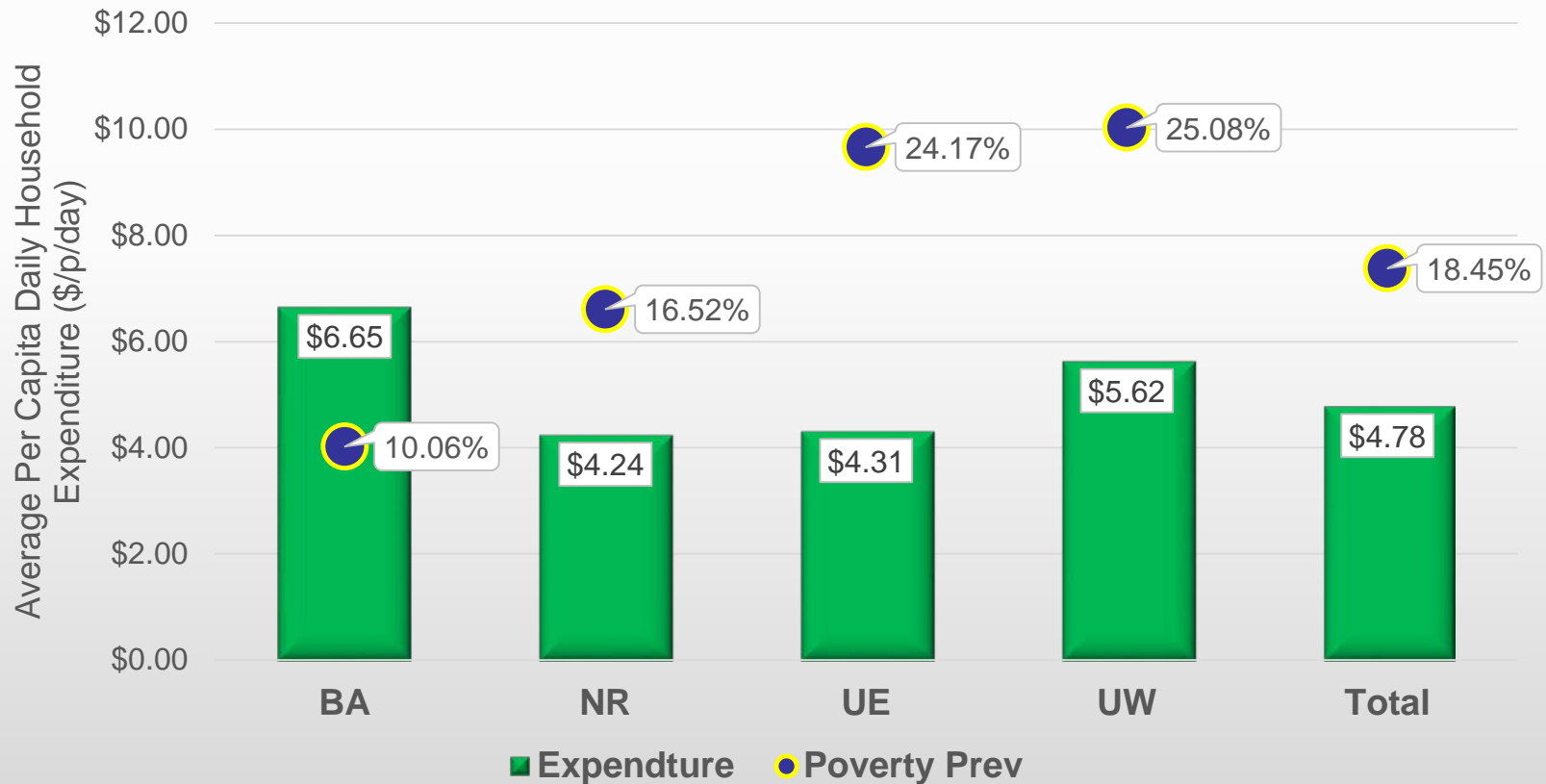


Change in Inequality 2012-2015 (ZOI)



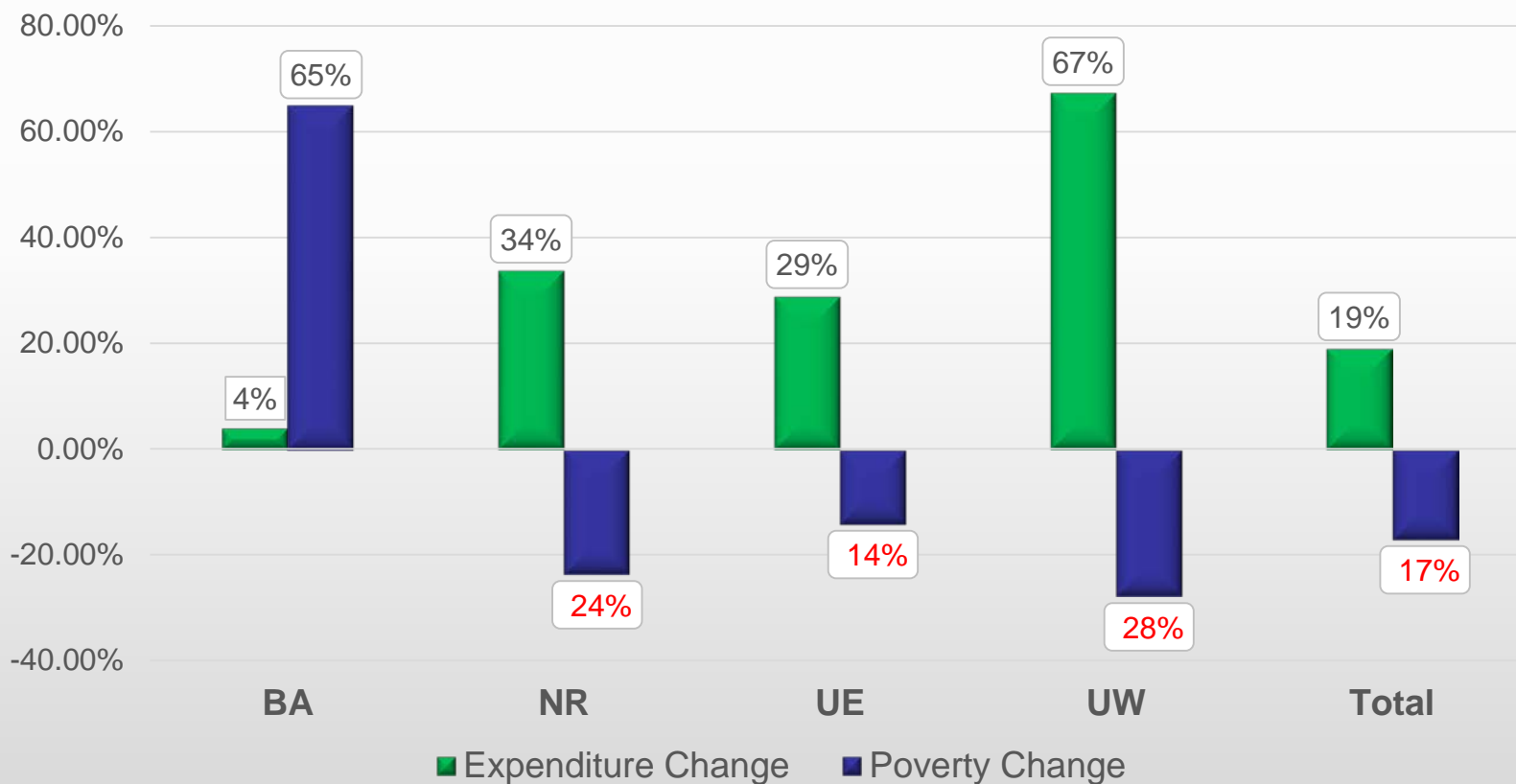


Expenditure and Poverty by Region (2015)





Expenditure and Poverty Change by Region (2015 v 2012)





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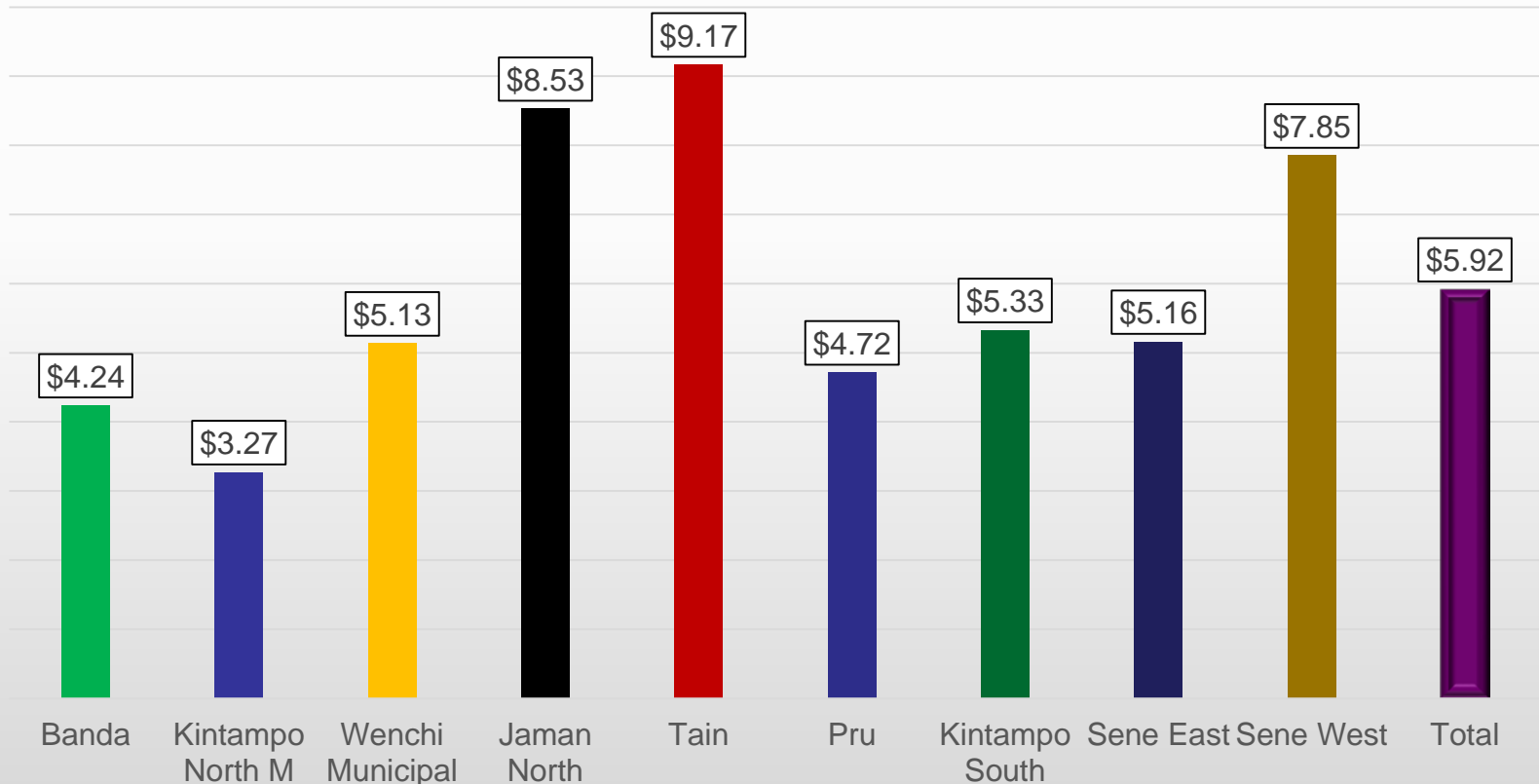
Brong Ahafo [Districts Above the 8th Parallel]

Raw unweighted district samples used in the estimation of the indicators



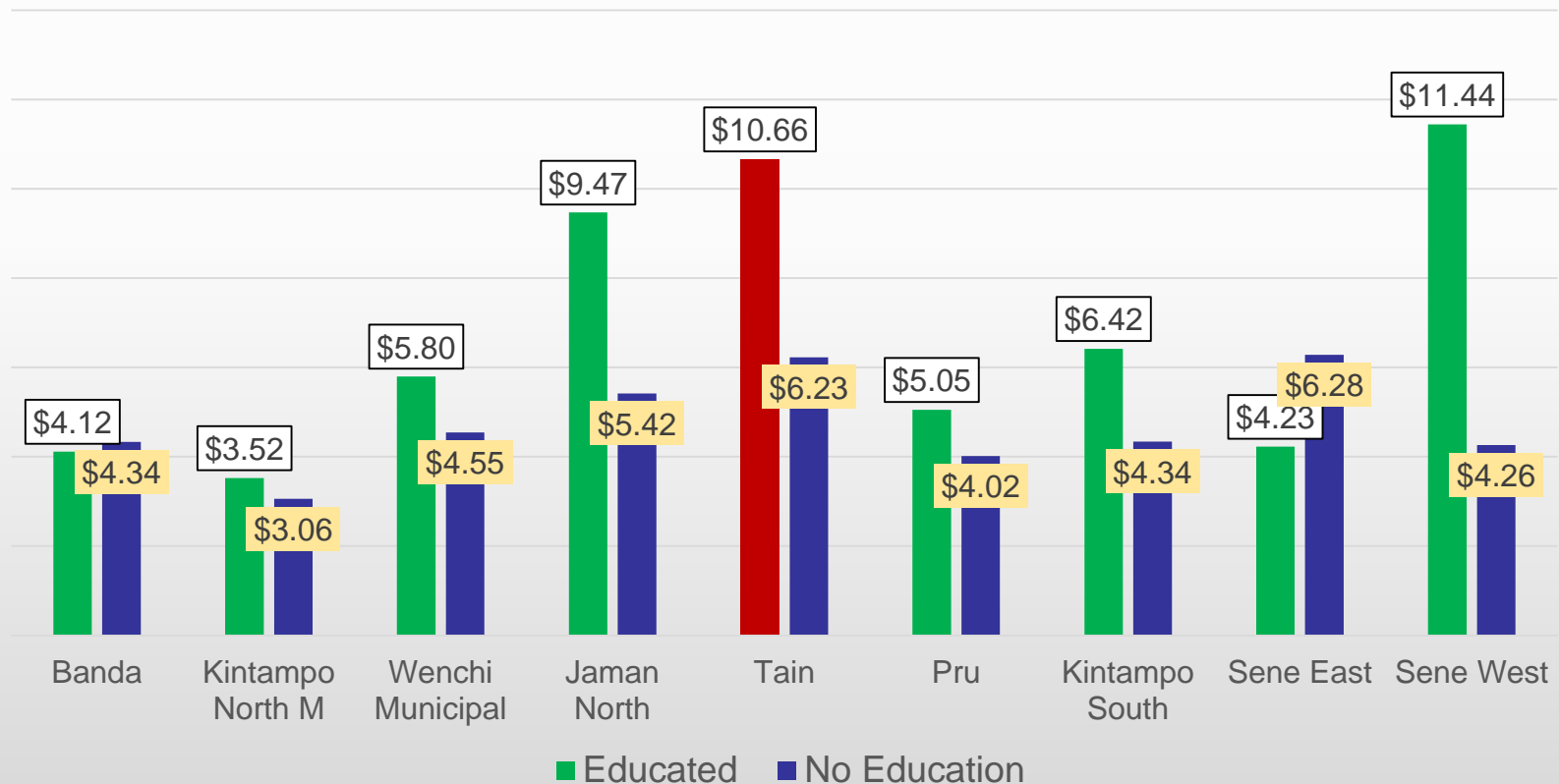
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Average Daily Per Capita Household Expenditure by District



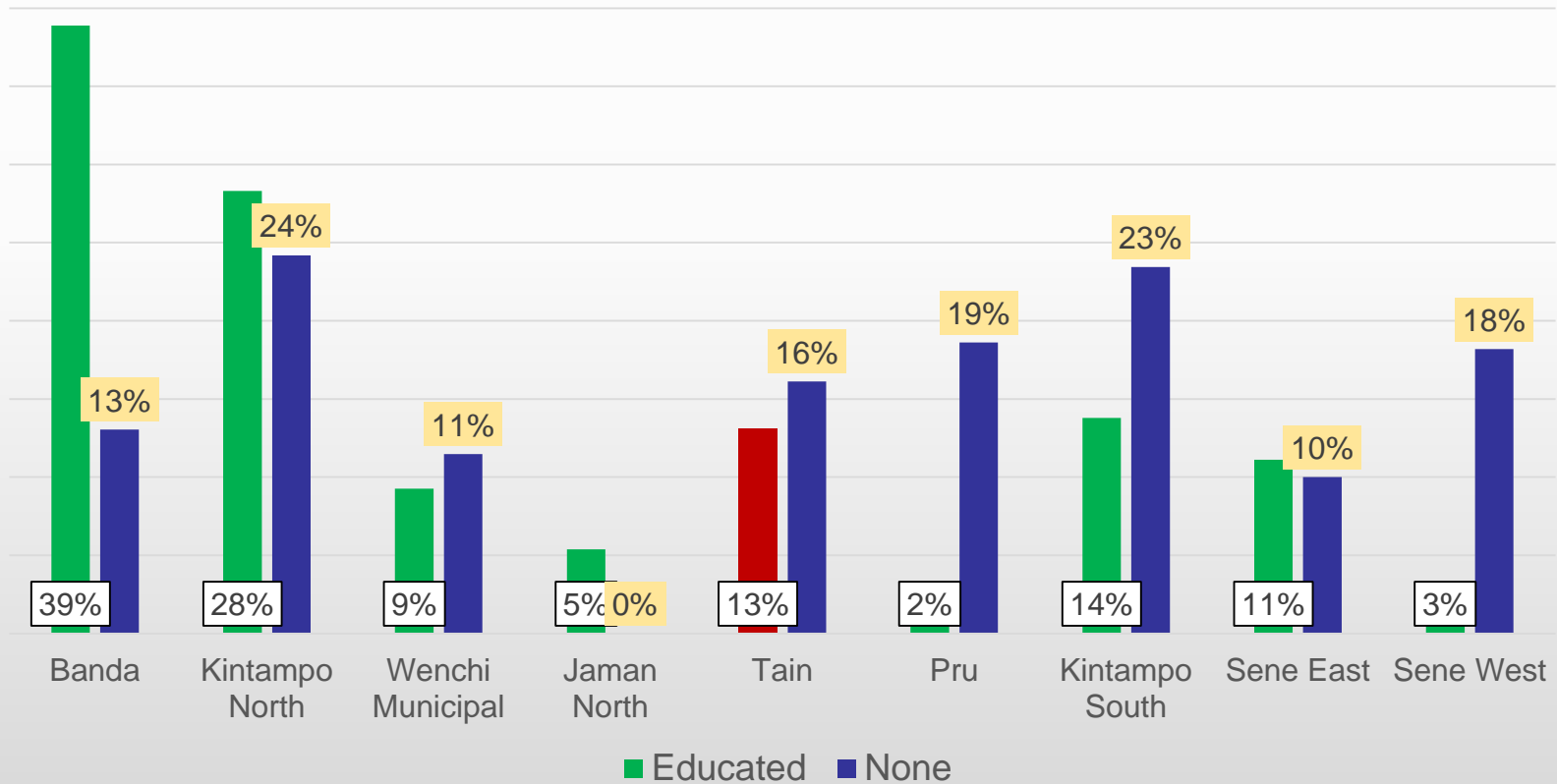


Average Daily Per Capita Household Expenditure by District and Education



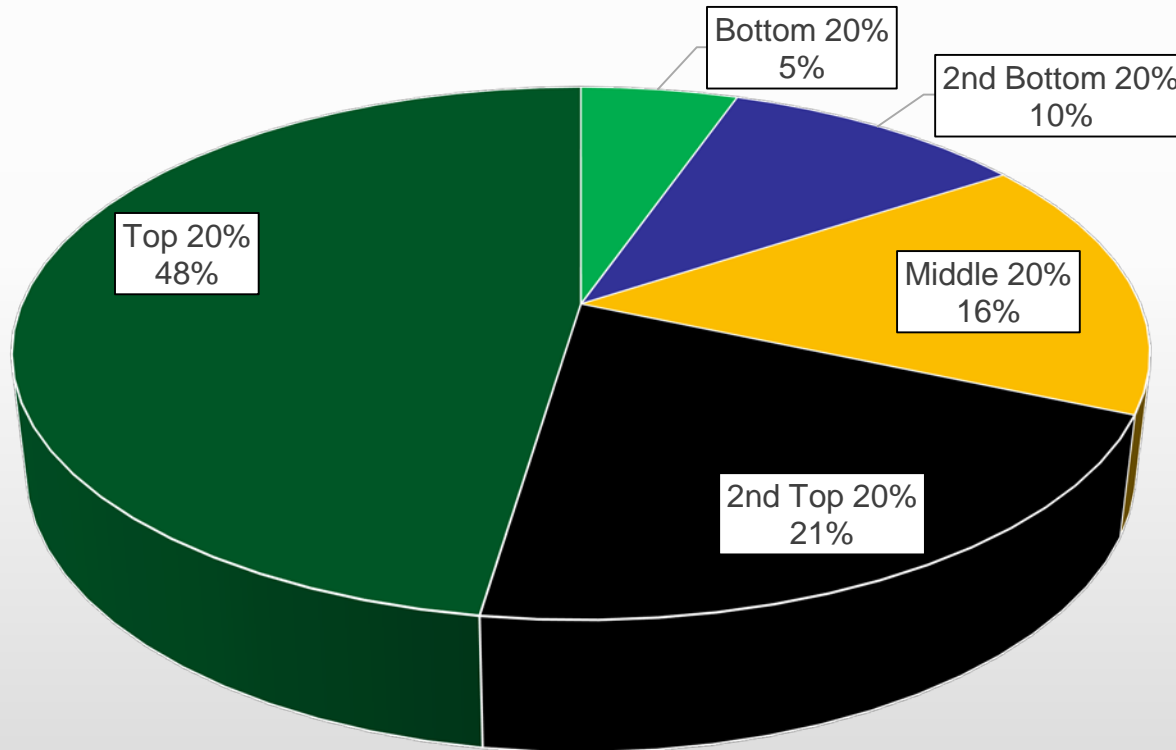


Poverty Prevalence by Districts and Education



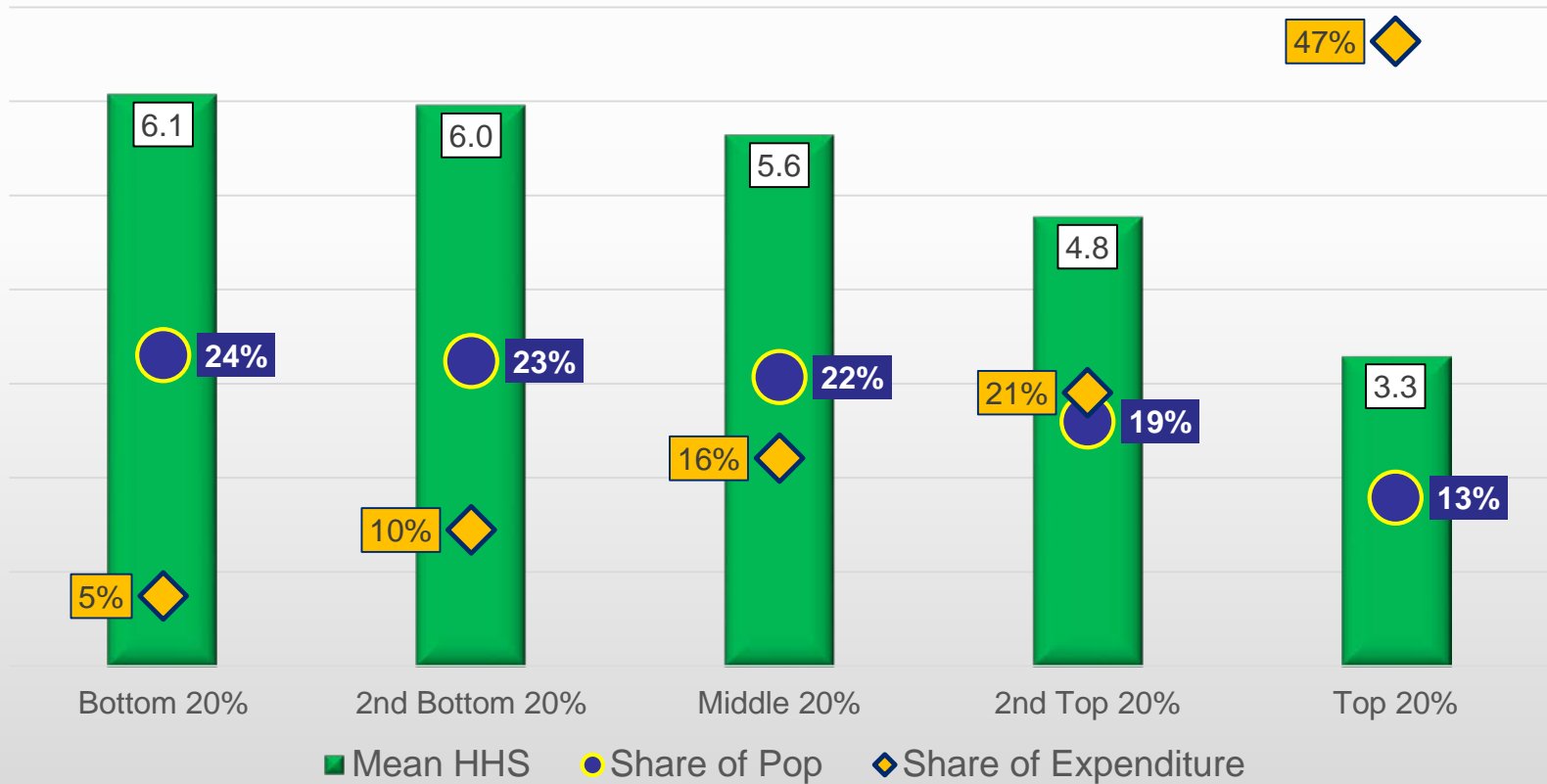


Distribution of 2015 Total Expenditure in BA-ZOI by Quintiles



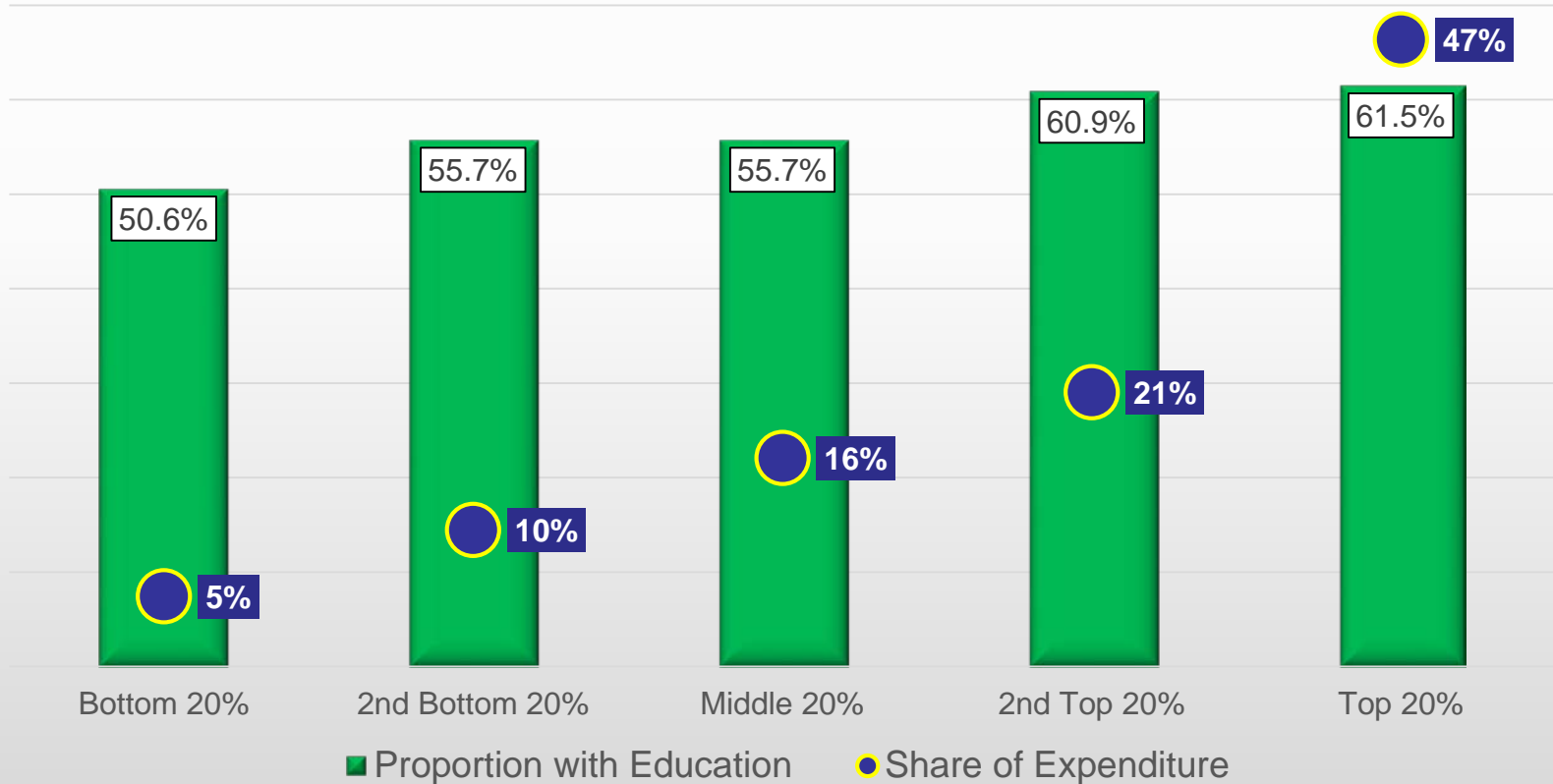


Average Household Size and Share of Population and Expenditure by Quintiles





Proportion of Households with Educated Head and Share Expenditure by Quintiles





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What Can We Learn?

- How are those counted as poor differ from those who are not?
- The probability of being among poor households is determined by education (E), gendered household type (G), household size (H), location (L), and food share of total expenditure (F)

$$P = f(E, G, H, L, F)$$



Determinants of Poverty Risk

Poverty	Odds Ratio	S.E.	z	P>z	95% Conf. Interval		Sig
1.Education	0.49	0.14	-2.52	0.01	0.28	0.86	**
<i>Gendered Household Type (Base = MFA)</i>							
FAO	0.92	0.38	-0.21	0.83	0.41	2.05	
MAO	0.95	0.42	-0.11	0.91	0.40	2.26	
Household Size	1.25	0.06	4.79	0.00	1.14	1.37	
<i>District (Base= Banda)</i>							
Kintampo	0.67	0.36	-0.74	0.46	0.23	1.92	
Wenchi	0.44	0.26	-1.40	0.16	0.14	1.39	
Jaman	0.31	0.21	-1.76	0.08	0.08	1.15	*
Tain	0.47	0.29	-1.21	0.23	0.14	1.60	
Pru	0.30	0.18	-2.01	0.04	0.09	0.97	**
Kintampo	0.92	0.51	-0.15	0.88	0.31	2.70	
Sene East	0.43	0.29	-1.24	0.22	0.12	1.62	
Sene West	0.08	0.09	-2.19	0.03	0.01	0.77	**
FoodShare	0.05	0.02	-6.01	0.00	0.02	0.13	***
Intercept	0.48	0.30	-1.19	0.24	0.14	1.61	



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What Can We Learn

- Having some education cuts the odds ratio of being poor by about half
- Increasing household size by one member increases the odds of being poor by about 25%
- Increasing food share of total expenditure by 1% decreases the odds of being poor by about 1.75%



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What Can We Learn

Implications

Education has a very powerful influence on the risk of being poor

Strategic investments in education – including adult literacy programs – can contribute to reducing poverty risk

Managing household size is critical to managing poverty risk

Enhanced recognition of the relationship between resource availability, household size and poverty could ameliorate poverty risks



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Thank You

Questions, comments, ideas