



**USAID**  
FROM THE AMERICAN PEOPLE

# Poverty and Hunger in the Upper East Region of Ghana

**Cesar Guvele**

Kansas State University – USAID METSS

Presented at the 2016 PBS Meeting

Extee Hotel, Upper East Region

March 22, 2016



## 2015 Survey Structure

- Reporting changes in the indicators from 2012 based on original 4,410 households
- These households were sampled using a 2-stage probability sampling approach
  - Stage 1: Probability proportional to size approach to select EAs
  - Stage 2: Systematic sampling approach to select 20 households per EA



**USAID**  
FROM THE AMERICAN PEOPLE

## Context

- 2012 PBS based on RING/Non-RING strata
- However, IPs needed information on districts
- So, with Mission support, we have collected baseline data to establish baseline metrics for traditional FtF indicators

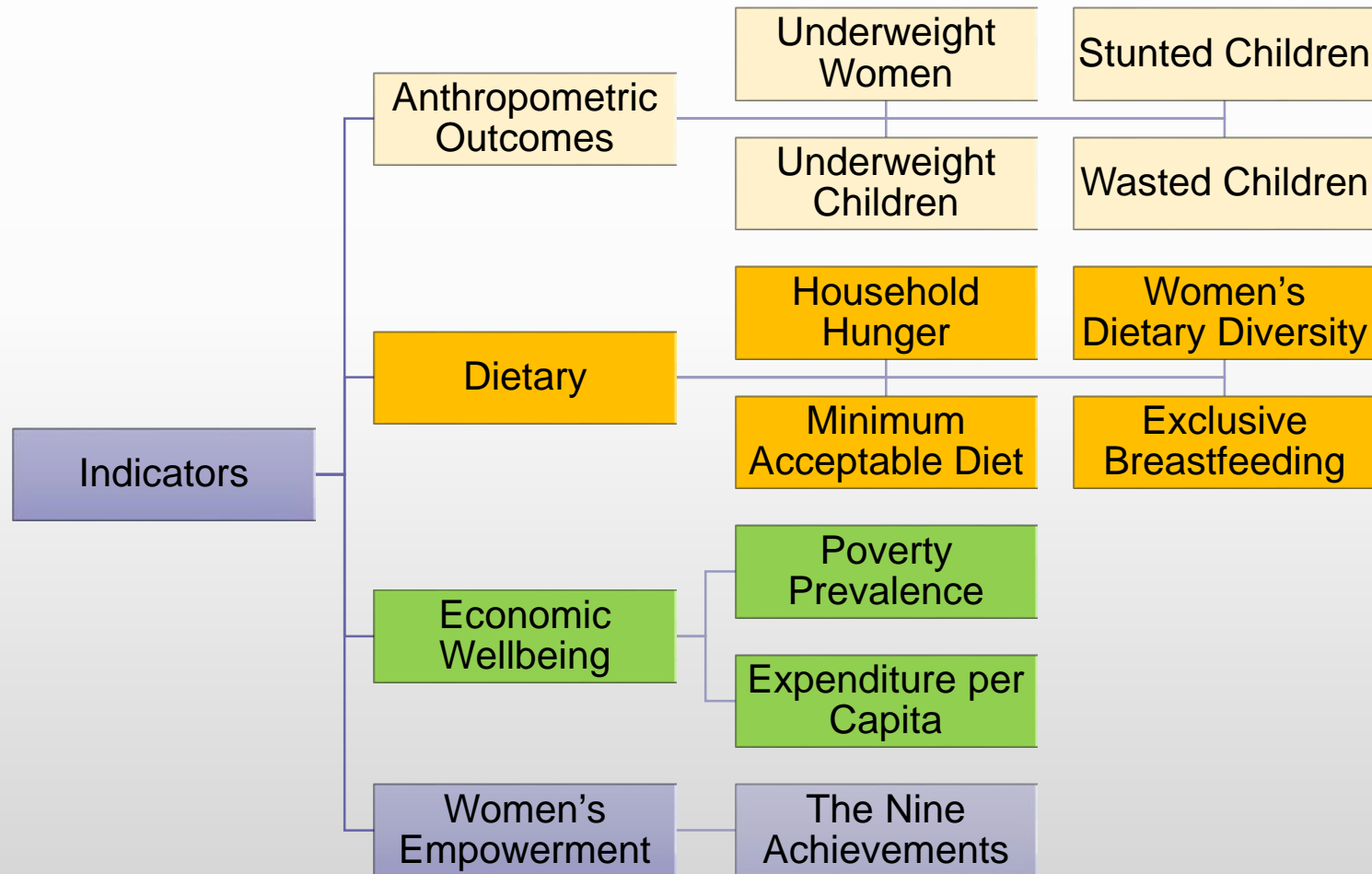


## Context

- Level of analysis = Household
  - Except WEAI, women and children's anthropometry
- Sampling approach
  - Matched 2012 sample = 4,410
  - Added another 2,751 to cover all districts in the ZOI using the original 2-stage probability sampling approach
    - Stage 1: Probability proportional to size approach to select EAs
    - Stage 2: Systematic sampling approach to select 20 households per EA



# The Indicators



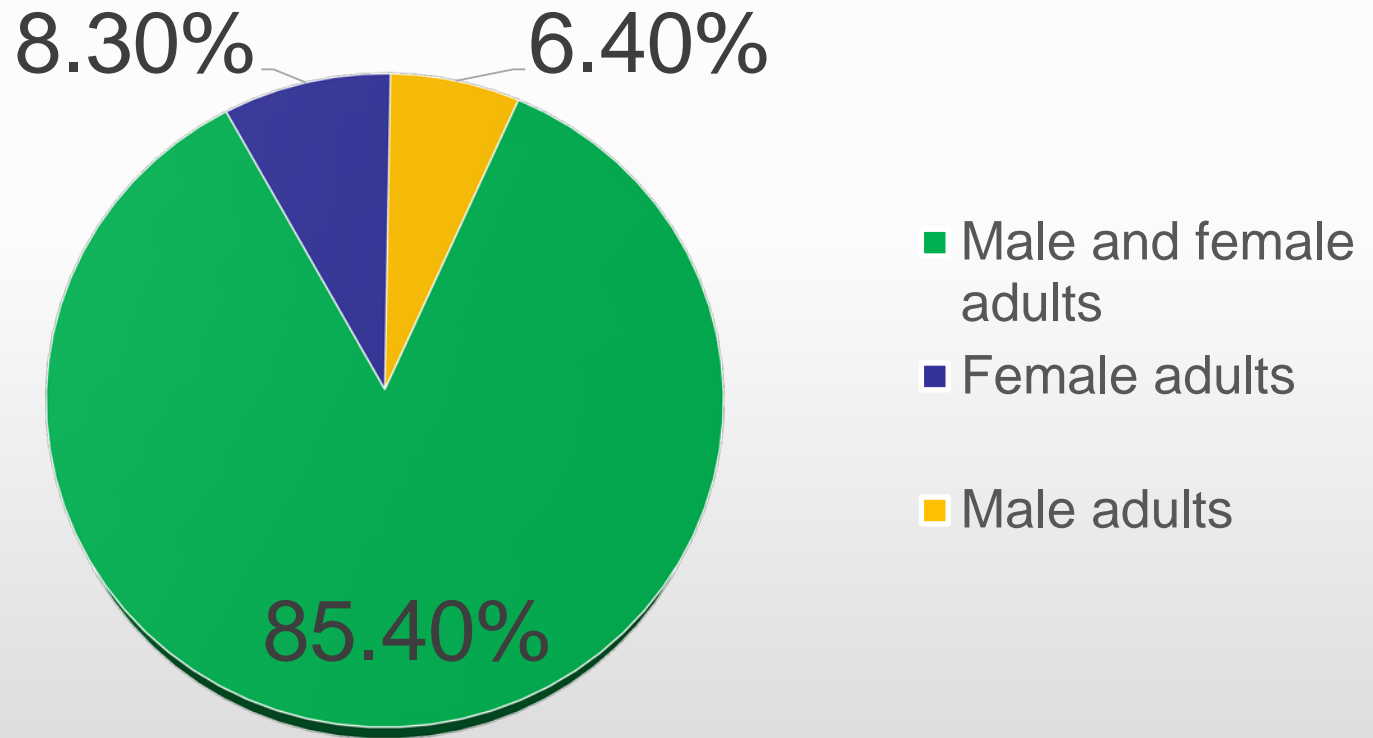


**USAID**  
FROM THE AMERICAN PEOPLE

# Demographics

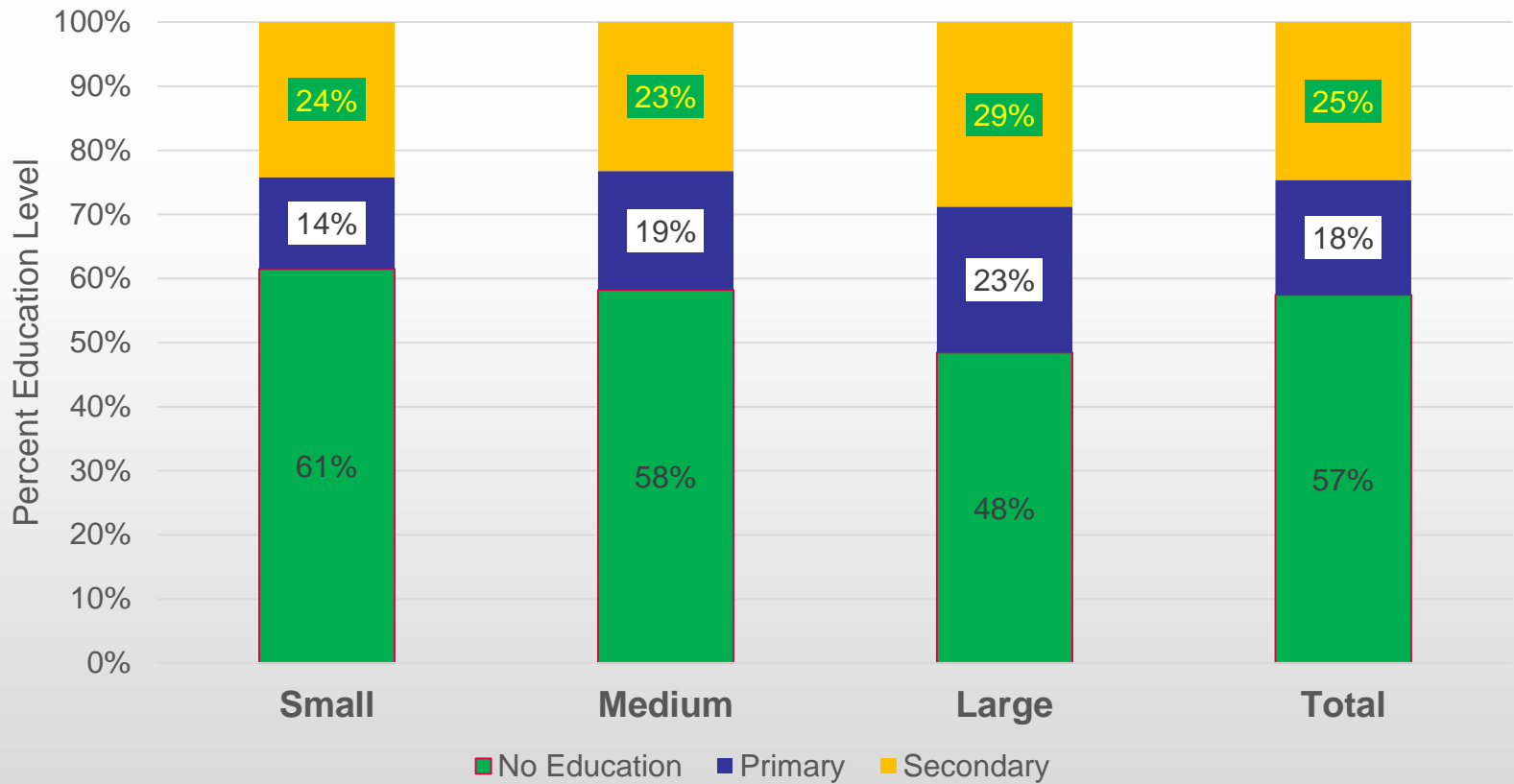


## Basic Household Characteristics





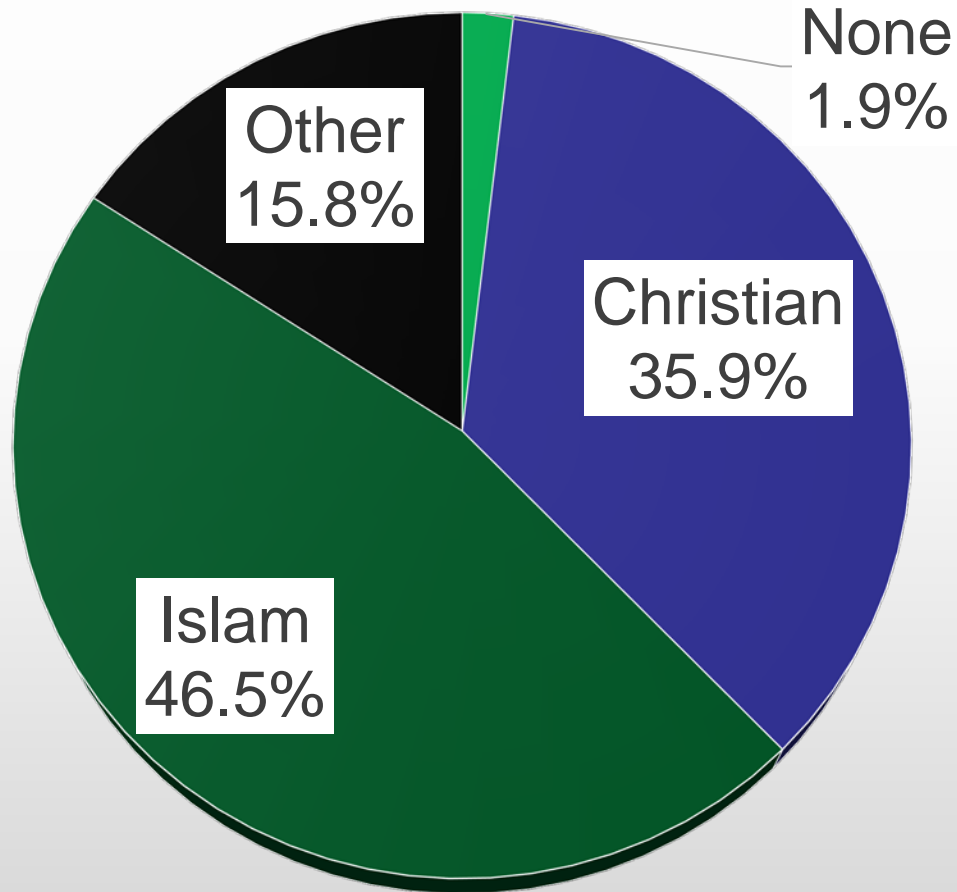
# Household Size and Education







# Religion





**USAID**  
FROM THE AMERICAN PEOPLE

# Economic Wellbeing and Poverty



**USAID**  
FROM THE AMERICAN PEOPLE

# Expenditure and Poverty

- Expenditures are used as a proxy for income
- Collected information on four expenditure categories:
  - Food; Housing; Non-durables; Durables
- Used the poverty threshold of \$1.25 – same as 2012



# Expenditure and Poverty

- Expenditure is used as a proxy for income in the PBS and covers four categories of consumption
  - Food
  - Housing – rent and imputed rent
  - Durables – last longer than a year (bicycles, radios, cellphones, etc.)
  - Non-durables – educations, health, beauty care, grooming, firewood and other household fuel, transportation, etc.



# Expenditure and Poverty

- Respondents are asked to provide expense information on various items within each of these four categories – 256 items in total across all four categories
- Food consumption based on 7-day recall
  - How much was consumed – communally and by individual household members at home and away from home
  - Disaggregated into proportion purchased, from own production and from gifts and other sources
  - Imputed price of own production and gifts in GHS



**USAID**  
FROM THE AMERICAN PEOPLE

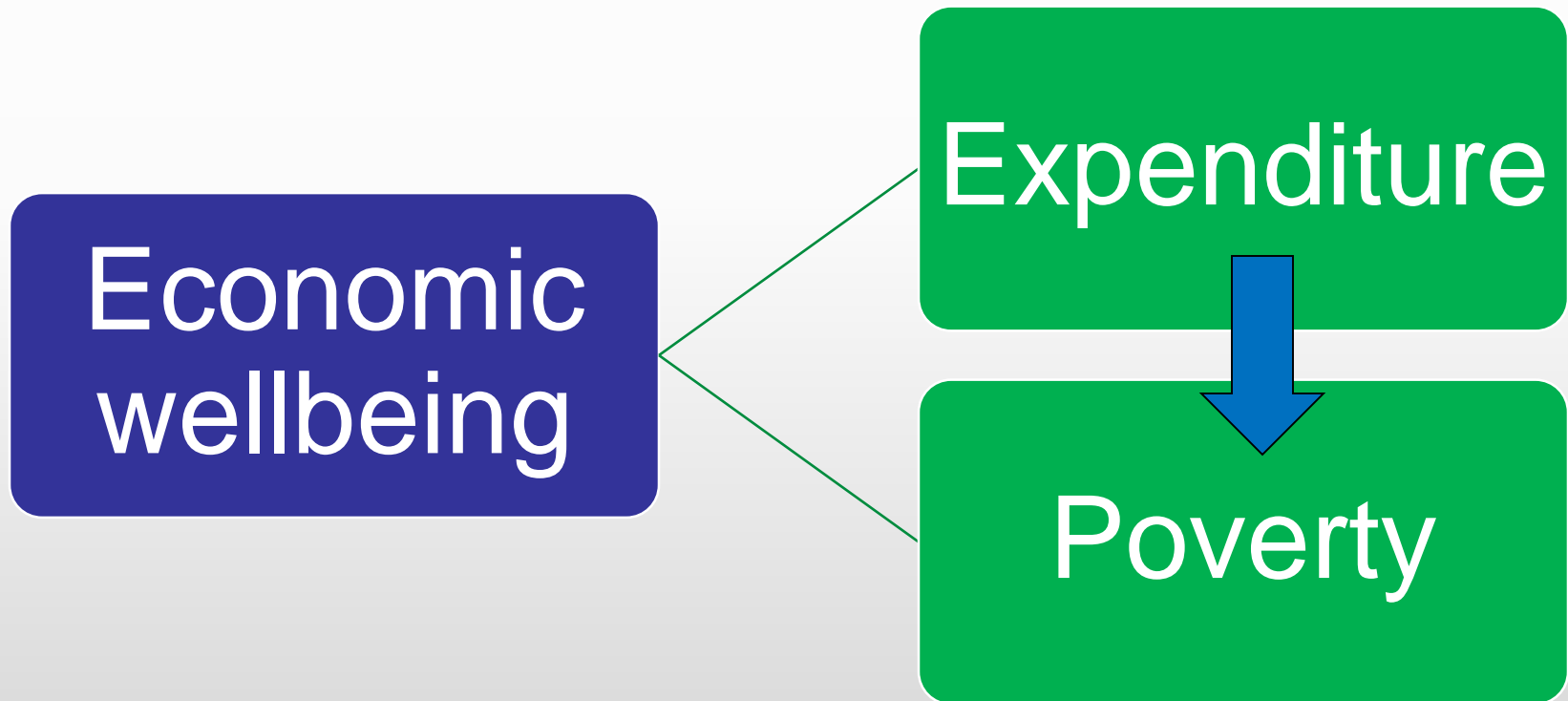
## Poverty defined

**Poverty is the lack of basic necessities that all human beings must have: food and water, shelter, education, medical care, security, etc. A multi-dimensional issue, poverty exceeds all social, economic, and political boundaries. As such, efforts to alleviate poverty must be informed of a variety of different factors.**



**USAID**  
FROM THE AMERICAN PEOPLE

## Our Focus = Households





**USAID**  
FROM THE AMERICAN PEOPLE

# Basic Assumption

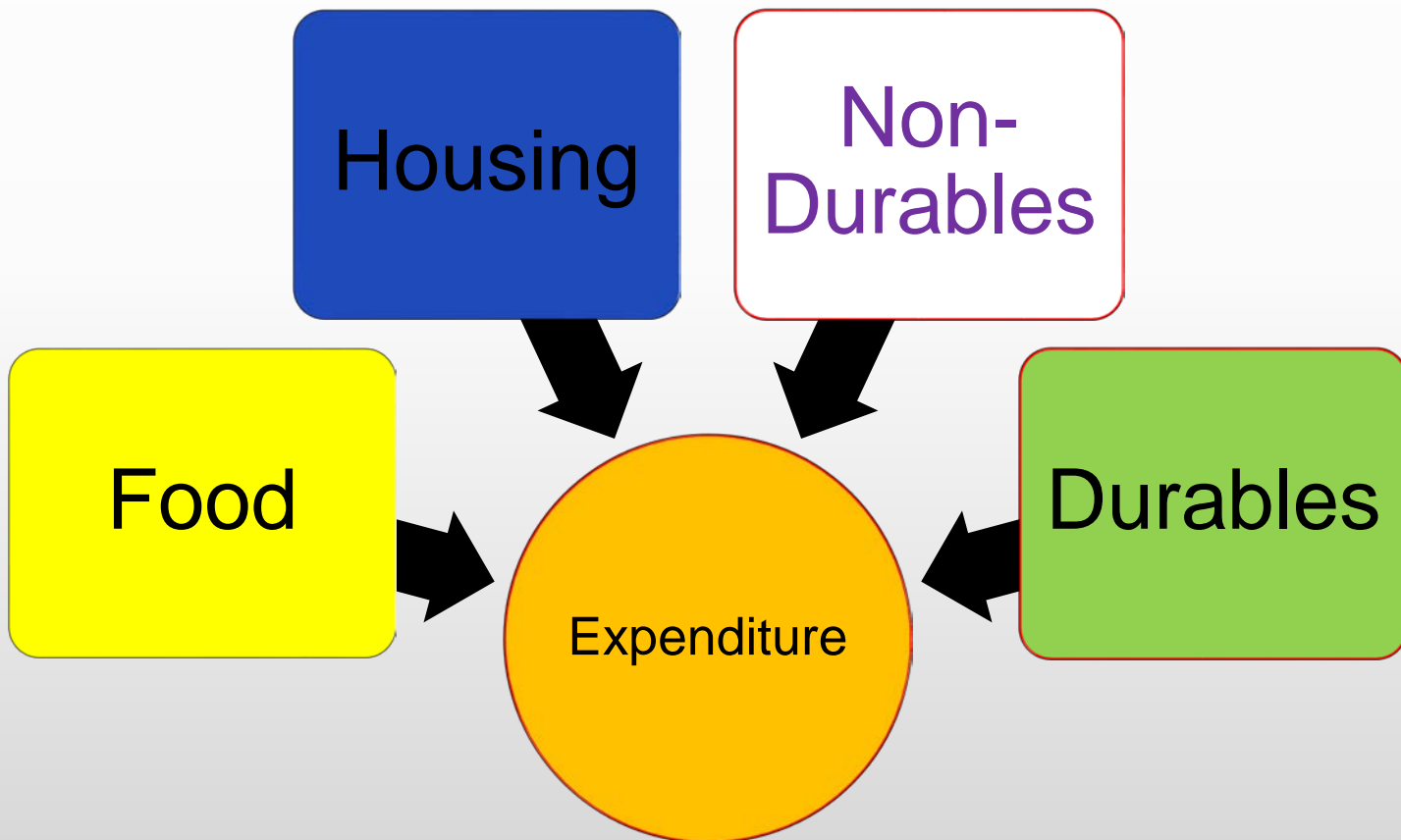






**USAID**  
FROM THE AMERICAN PEOPLE

# Components of Expenditure = 256 items with different recall times





**USAID**  
FROM THE AMERICAN PEOPLE

# Expenditure

Total Annual  
Aggregate  
Expenditure /  
365 days



Daily  
Aggregate  
Expenditure



**USAID**  
FROM THE AMERICAN PEOPLE

## 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



## Prevalence and depth of poverty

- **The prevalence of poverty, (the poverty headcount ratio) is the percent of individuals living below a poverty threshold.**
- **It indicates how *many* individuals are impacted by poverty, it does not address by how *much* people are *impacted* by poverty.**
- **To measure this the depth of poverty (the poverty gap), is used.**
- **The non-poor counted as having a gap of zero.**

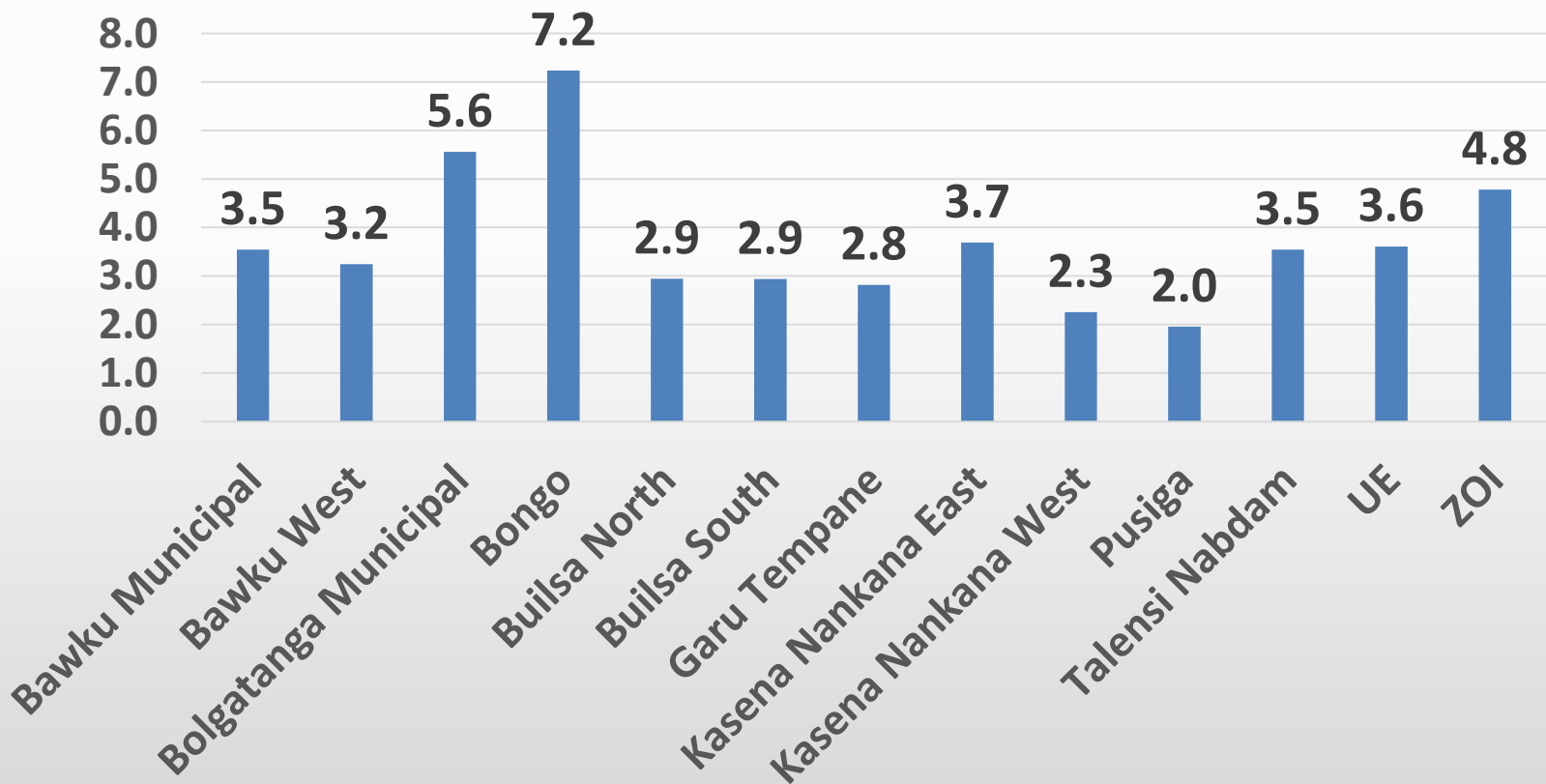


**USAID**  
FROM THE AMERICAN PEOPLE

# Results



## District level daily per capita expenditure (in 2010 USD) in UE





**USAID**  
FROM THE AMERICAN PEOPLE

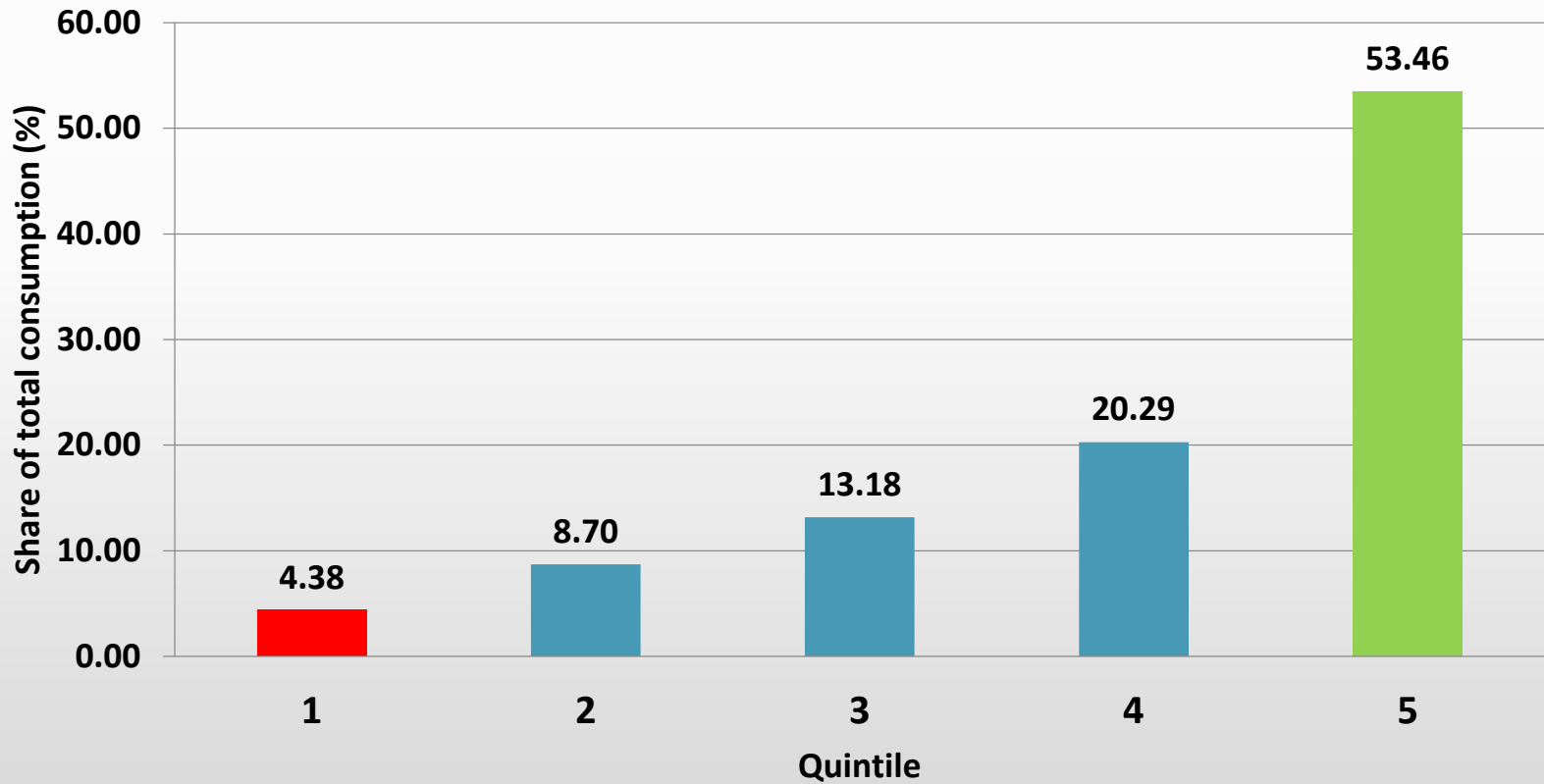
## Daily per capita expenditure distribution (in 2010 USD) in ZOI

All households (3727)

- Mean 4.29
  - 10<sup>th</sup> percentile 0.65
  - 25<sup>th</sup> percentile 1.06
  - 50<sup>th</sup> percentile 2.20
  - 75<sup>th</sup> percentile 10.23
  - 90<sup>th</sup> percentile 16.19
  - Differences by household characteristics



## Share of consumption per quintile in ZOI







## Poverty at the \$1.25 (2005 PPP) per person per day threshold

- **Prevalence of poverty**
  - **Percent of population** 18.1
  - **Sample size assessed** 3836
- **Depth of poverty**
  - **Percent of poverty line** 6.6
  - **Sample size assessed** 3727
- **Average consumption shortfall of the poor**
  - **In USD 2005 PPP** 0.44
  - **Percent of poverty line** 35.3
  - **Sample size assessed** 695
- **Differences are noted by household characteristics**



## Poverty at the national absolute threshold of 1314GHS per adult (2012/13)

- **Prevalence of poverty**
  - **Percent of population** 43.4
  - **Sample size assessed** 3792
- **Depth of poverty**
  - **Percent of poverty line** 18.7
  - **Sample size assessed** 3792
- **Average consumption shortfall of the poor**
  - **In GHS 2013 PPP** 529.1
  - **Percent of poverty line** 40.3
  - **Sample size assessed** 1761
- **Differences are noted by household characteristics**

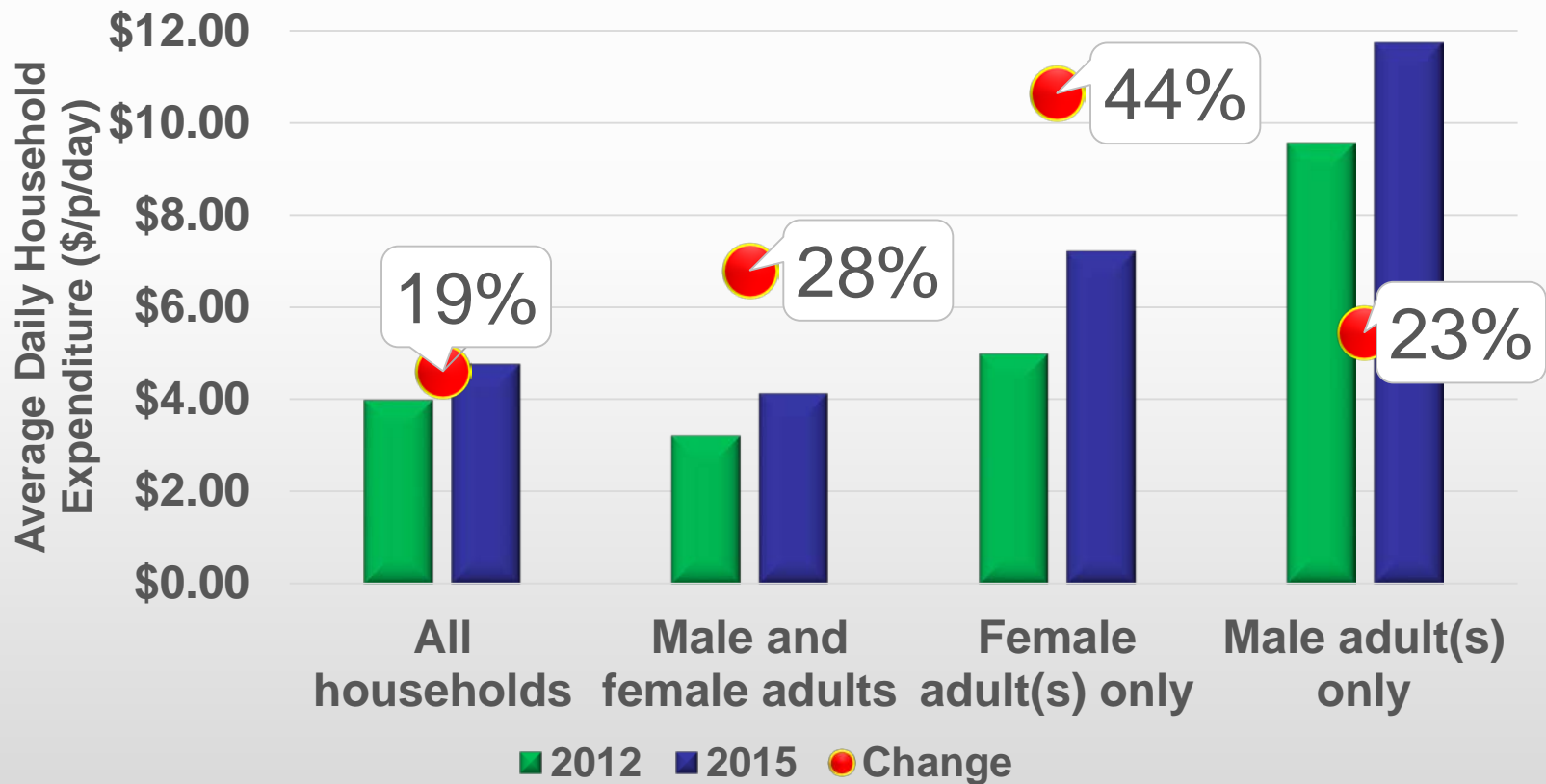


## Poverty at the national extreme threshold of 792.05GHS per adult (2012/13)

- **Prevalence of poverty**
  - **Percent of population** 21.1
  - **Sample size assessed** 4061
- **Depth of poverty**
  - **Percent of poverty line** 7.8
  - **Sample size assessed** 3792
- **Average consumption shortfall of the poor**
  - **In GHS 2013 PPP** 272.6
  - **Percent of poverty line** 34.4
  - **Sample size assessed** 856
- **Differences are noted by household characteristics**

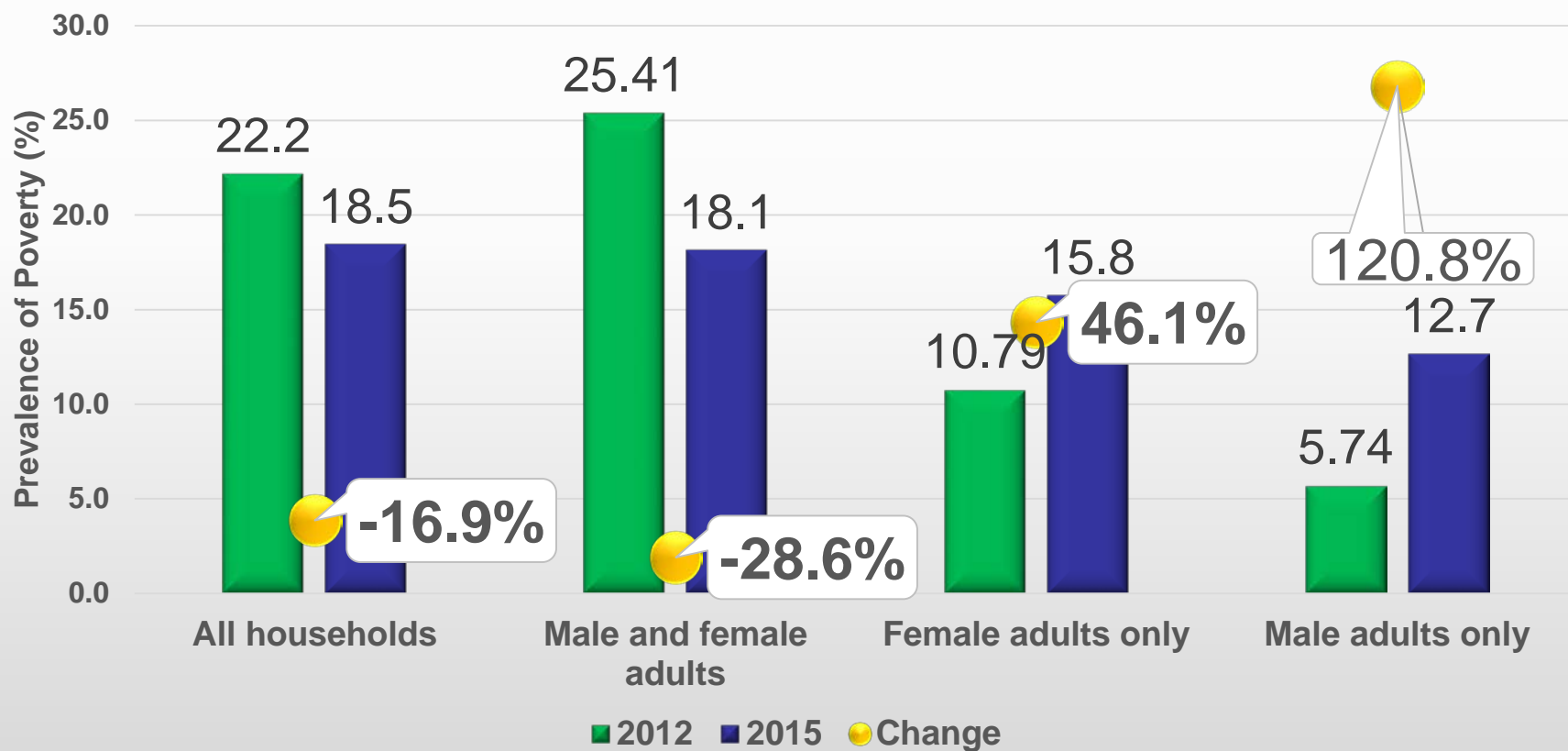


## Change in Expenditure by Gendered Household Types



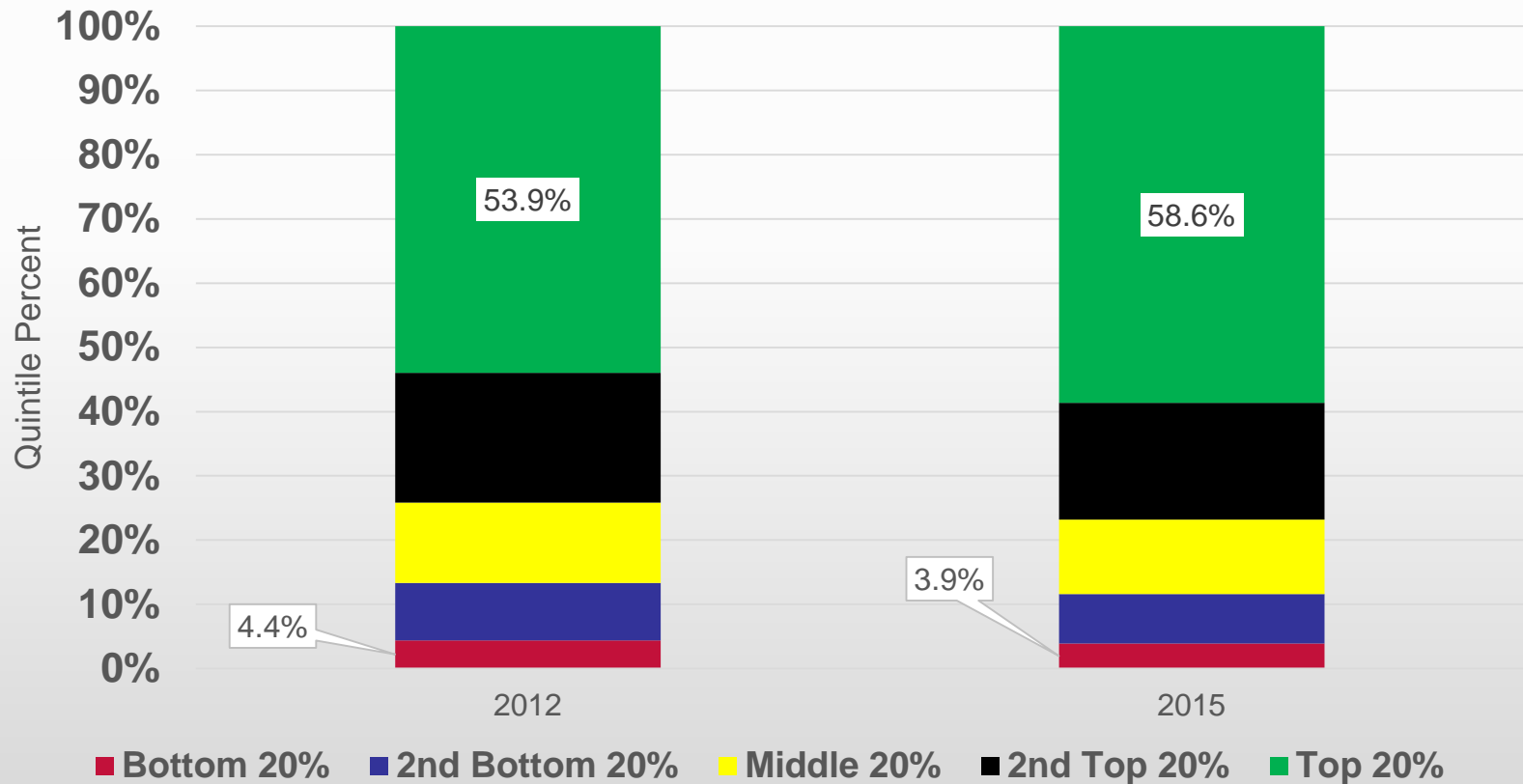


## Change in Poverty by Gendered Household Types



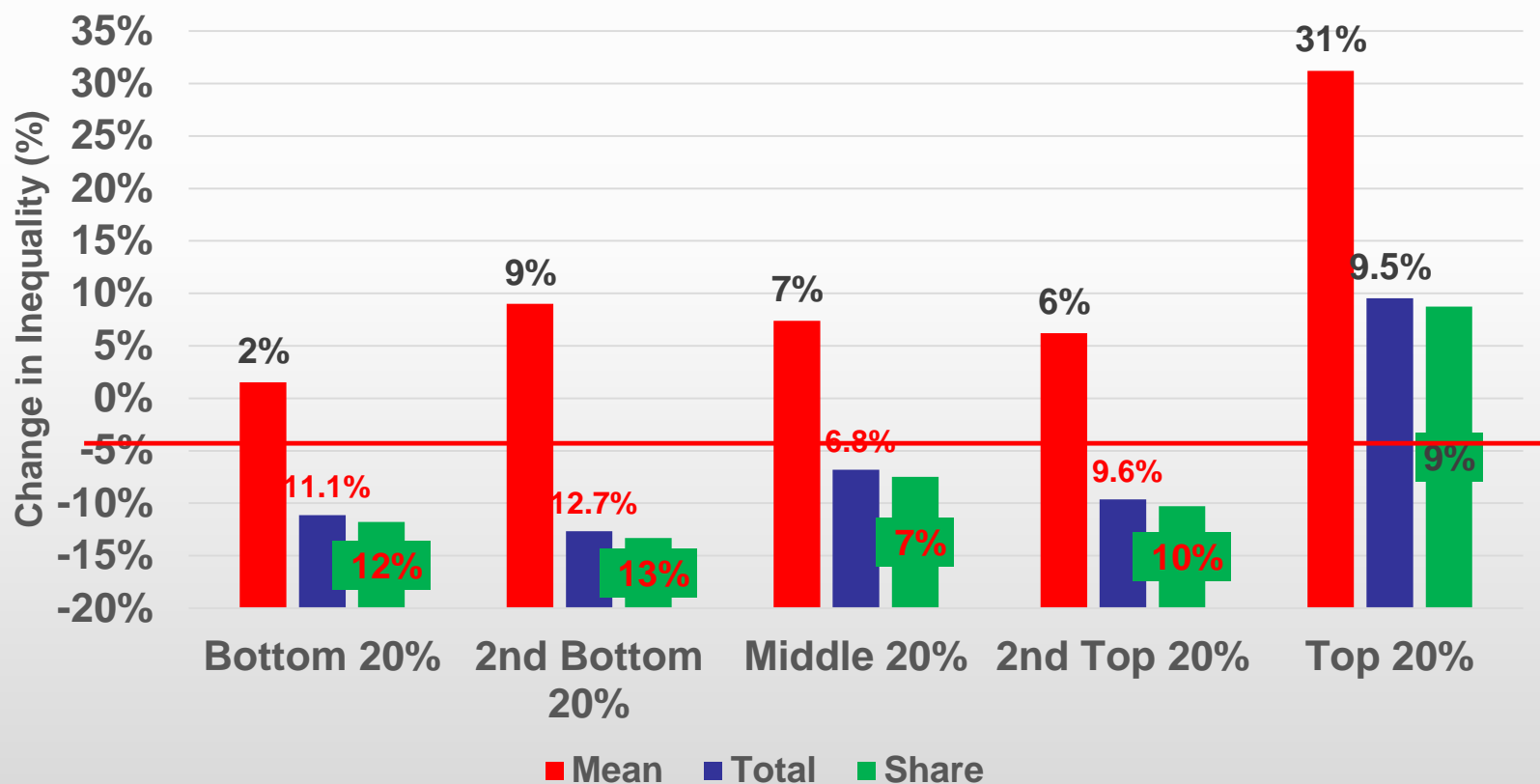


# Inequality Indicator: Distribution of Consumption by Quintiles



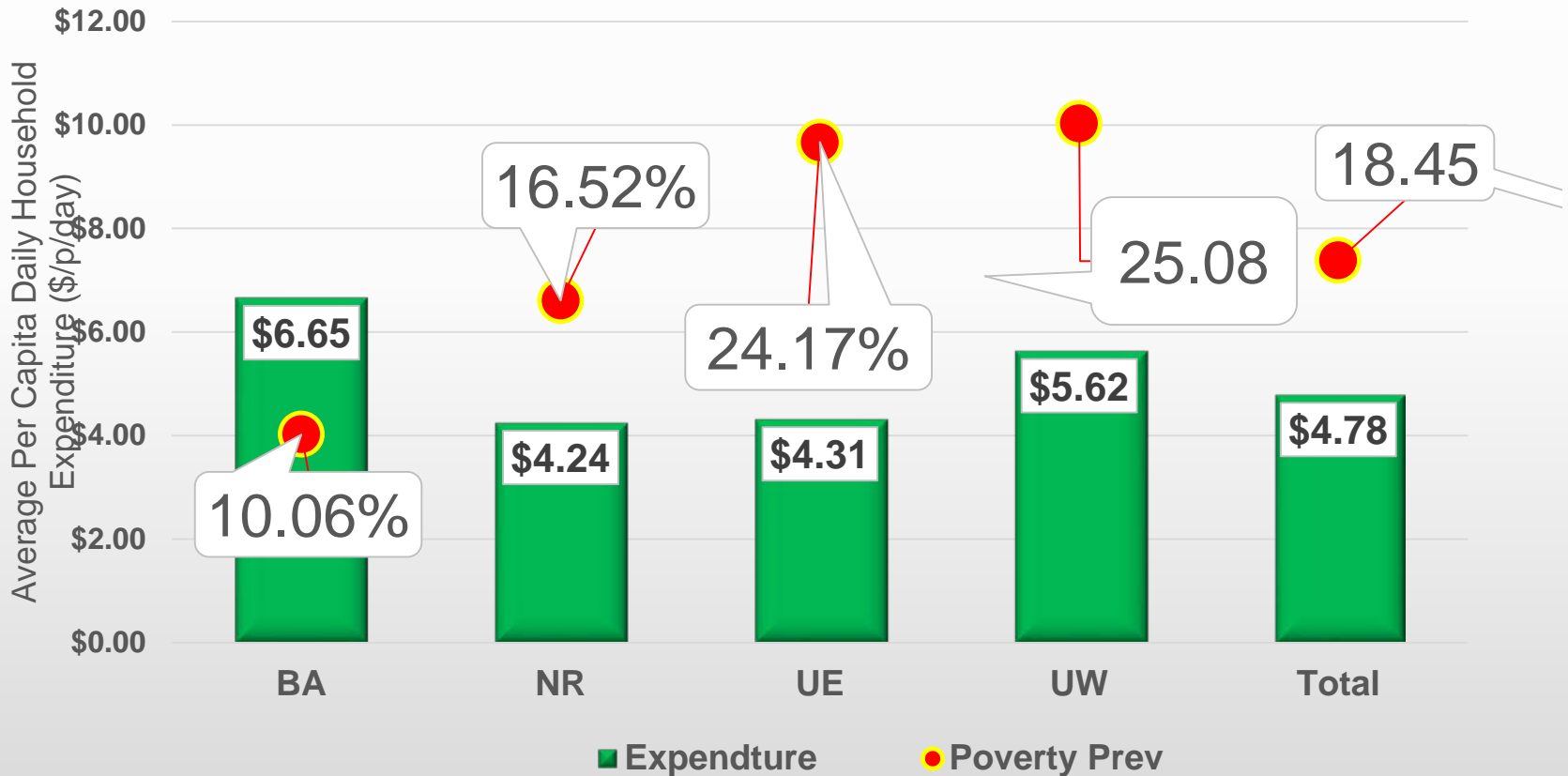


# Change in Inequality 2012-2015





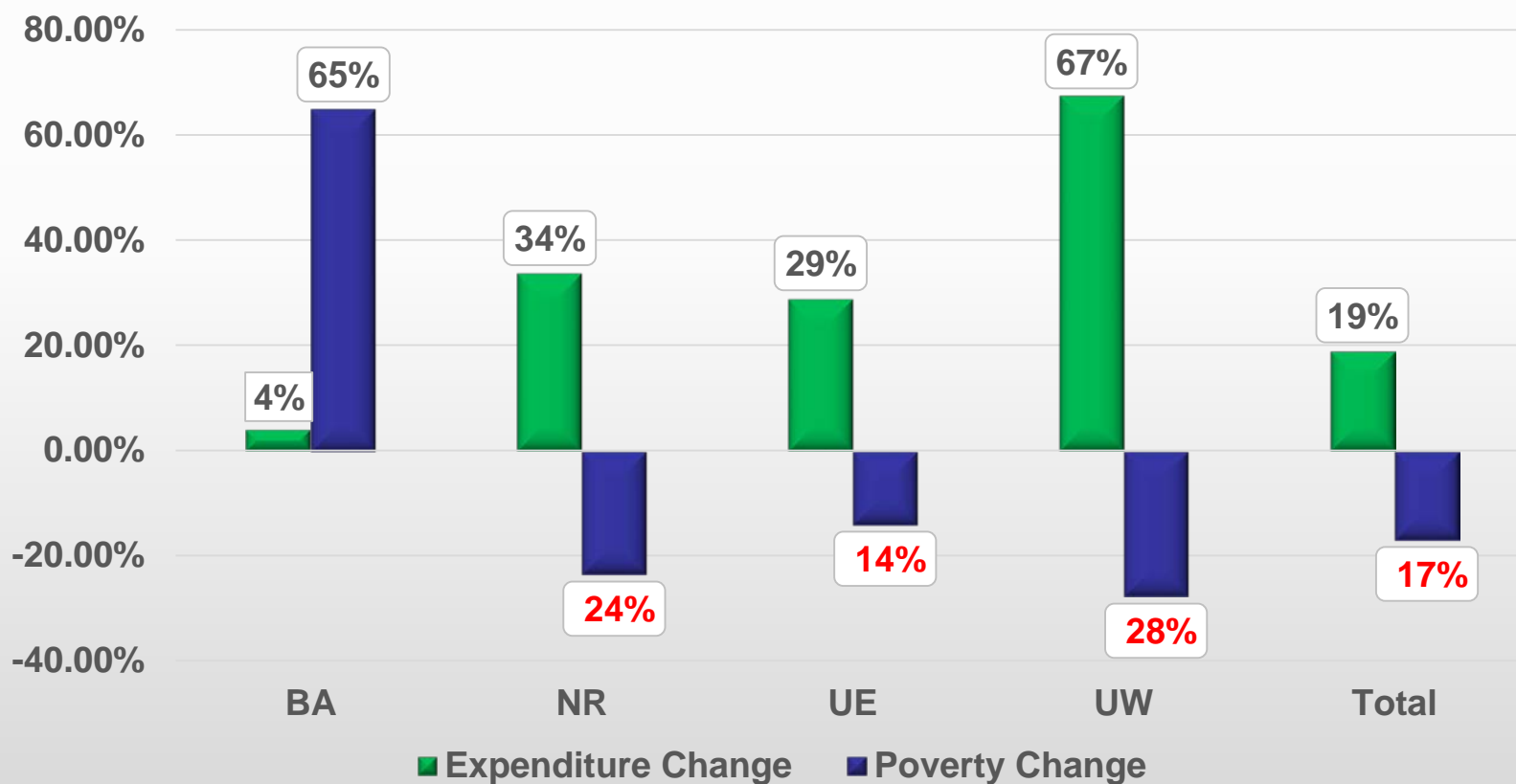
# Expenditure and Poverty by Region (2015)







## Expenditure and Poverty Change by Region (2015 v 2012)





**USAID**  
FROM THE AMERICAN PEOPLE

## 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, gendered household type, household size, location, and food share of total expenditure**



**USAID**  
FROM THE AMERICAN PEOPLE

## What Can We Learn

- Compared to BA, the odds of being poor is 1.9 times higher in NR, 2.9 times higher in UE and 4.1 times higher in UW
- There is no statistically significant difference between male and female adults and the other gendered household types when it comes to the probability of being counted among the poor
- Female adults only households differ slightly



**USAID**  
FROM THE AMERICAN PEOPLE

## What Can We Learn

- **The odds of being poor with education is about 0.6 times the odds of being poor without education**
- **Every member increase in household size increased the odds of being poor by 23%**
- **Every increase in percent increase in food share of total expenditure reduces the odds of being poor 14%**



**USAID**  
FROM THE AMERICAN PEOPLE

## What Can We Learn

---

# Implications

The three northern regions are still vulnerable despite progress in poverty reduction

---

Investments in education is very important in reducing poverty risk

---



**USAID**  
FROM THE AMERICAN PEOPLE

## Take Aways

- **Expenditures have increased**
- **Poverty prevalence has declined from the baseline**
- **However, the gap between the top and the bottom quintiles has increased**
- **Policymakers can help poverty alleviation by facilitating the enabling environment**
- **Individuals can do their part by enhancing their education and investing in that of their kids**



**USAID**  
FROM THE AMERICAN PEOPLE

**Thank you very much**