



# Impact of Women Empowerment on Nutritional Outcomes in Kenya

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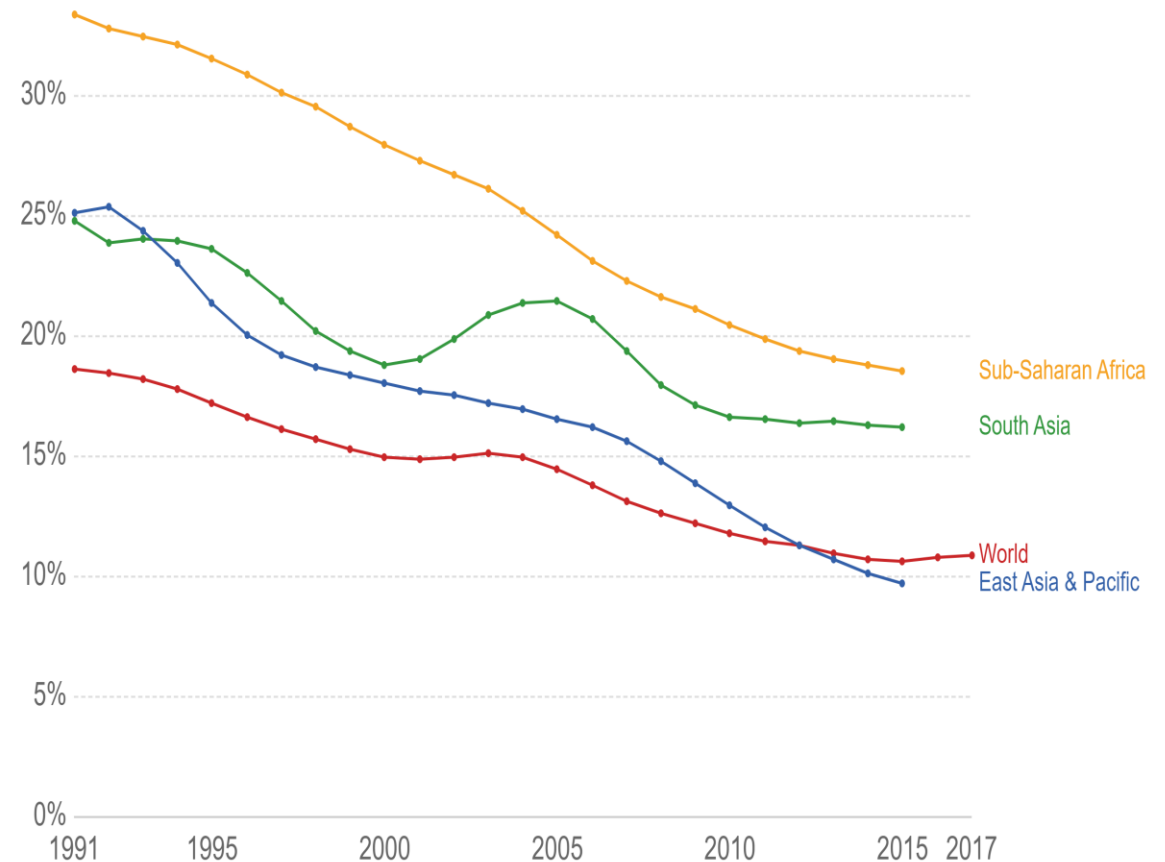
# Outline of presentation

- **Background and Motivation**
- **Research questions**
- **Methodology**
- **Results**
- **Key messages**



# Background and motivation

- **Undernourishment and malnutrition remains widely present globally**
- **But which countries are home to the malnutrition?**
- **Evidence shows that despite progress high levels remain SSA, Kenya inclusive**



Source: UN Food and Agriculture Organization (FAO)

OurWorldInData.org/hunger-and-undernourishment/ • CC BY

Note: Developed countries are not included in the regional estimates since the prevalence is below 5%.

# Efforts to combat malnutrition in Kenya

- In Kenya numerous policies seek to address malnutrition, however a number of them largely productionist;
- Despite the importance of the women empowerment pathway, its not clear which domains have an influence on nutrition
- We contribute to literature, by assessing the impact of various women empowerment domains on nutrition

## **Policy context on Women Empowerment in Kenya**

**The policy on Free Primary (2003) and Secondary Education (FDSE) in 2008**

**Gender for Development Policy 2000 & The ministerial policy on Gender and Development (2011)**

**National Land Policy 2009; Land Acts 2013 and The Bill of Rights in CoK 2010**

**Prohibition of Female Genital Mutilation Act 2009**

**Policies sought to improve access to opportunities and resources, women agency, self worth and esteem and reduction of violence on women**

## Three (3) research questions

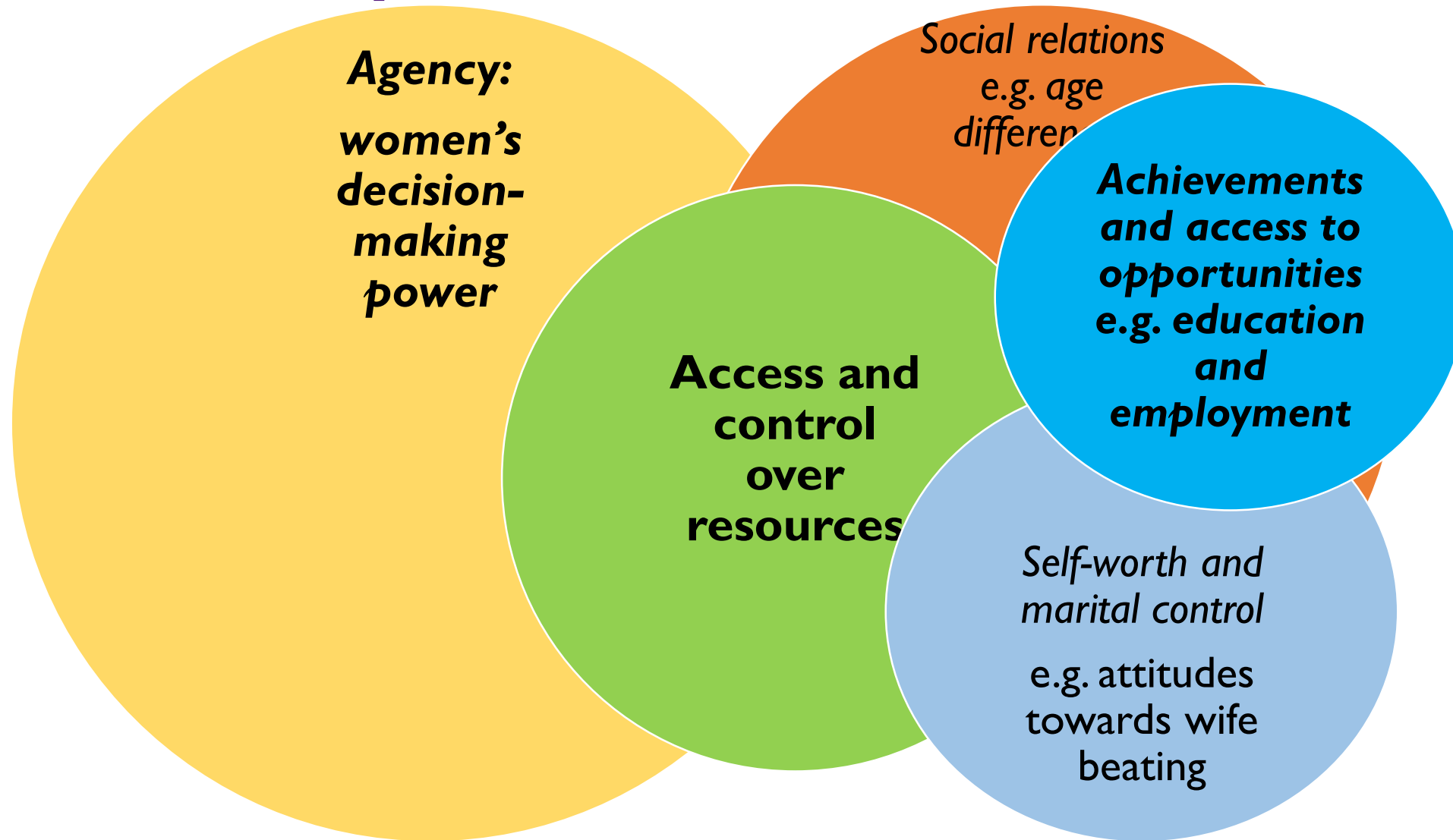
⇐ a) What are the changes in women empowerment in Kenya over the period 2003 – 2014?

≈ a) Have child nutritional outcomes improved over the same period?

↻ a) What dimensions of women empowerment have impact on nutrition in Kenya?

- Analysis employed a pooled data set from the KDHS 2003, 2008-09 and 2014

# Women empowerment indicators



**Nutritional outcomes: (i) Household diversity analysis (ii) Anthropometric measures**



# Analytical models

$$DD_i = \alpha_0 + \beta_i W_i + \delta_i H + \mu$$

- Where;  $DD_i$  is vector of DD indicators,  $W_i$  is a vector of WE variables,  $H$  is a vector of control variables
- 2SRI is adopted to address potential endogeneity following (Wooldridge, 2011).

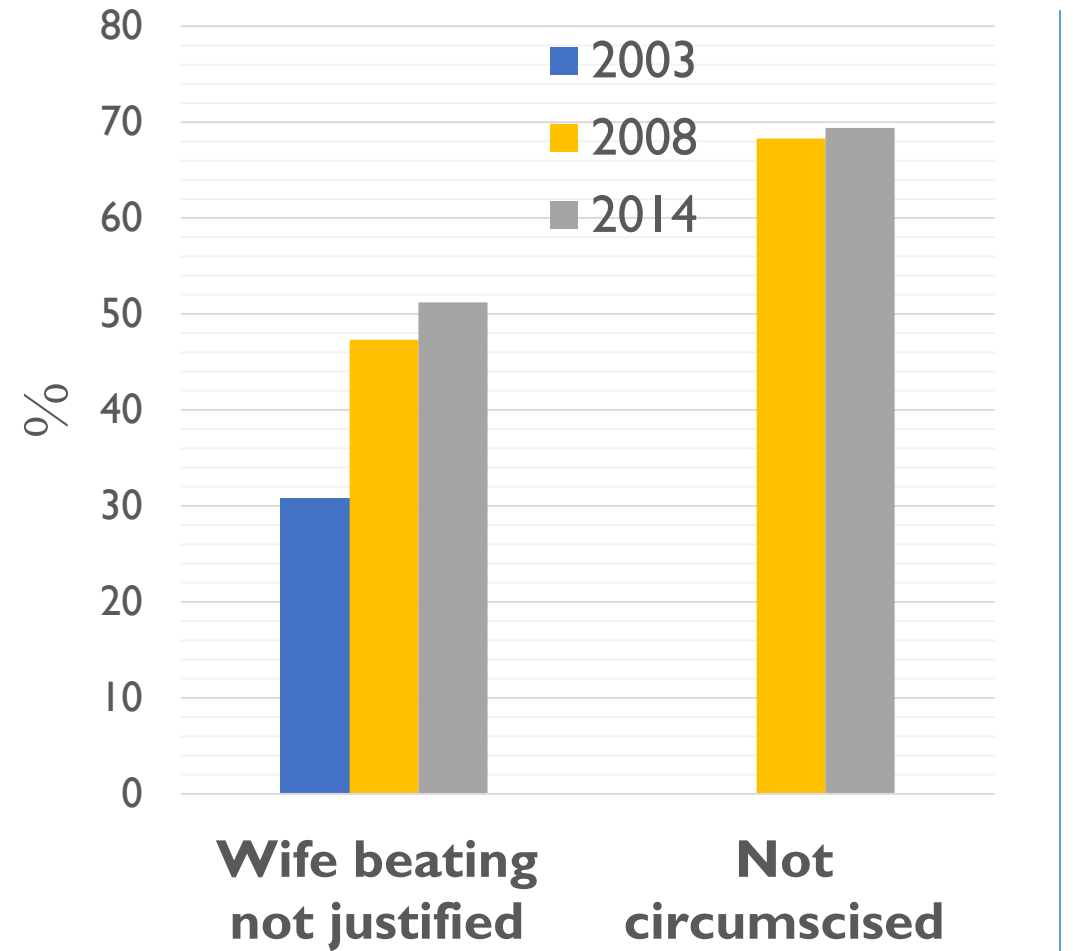
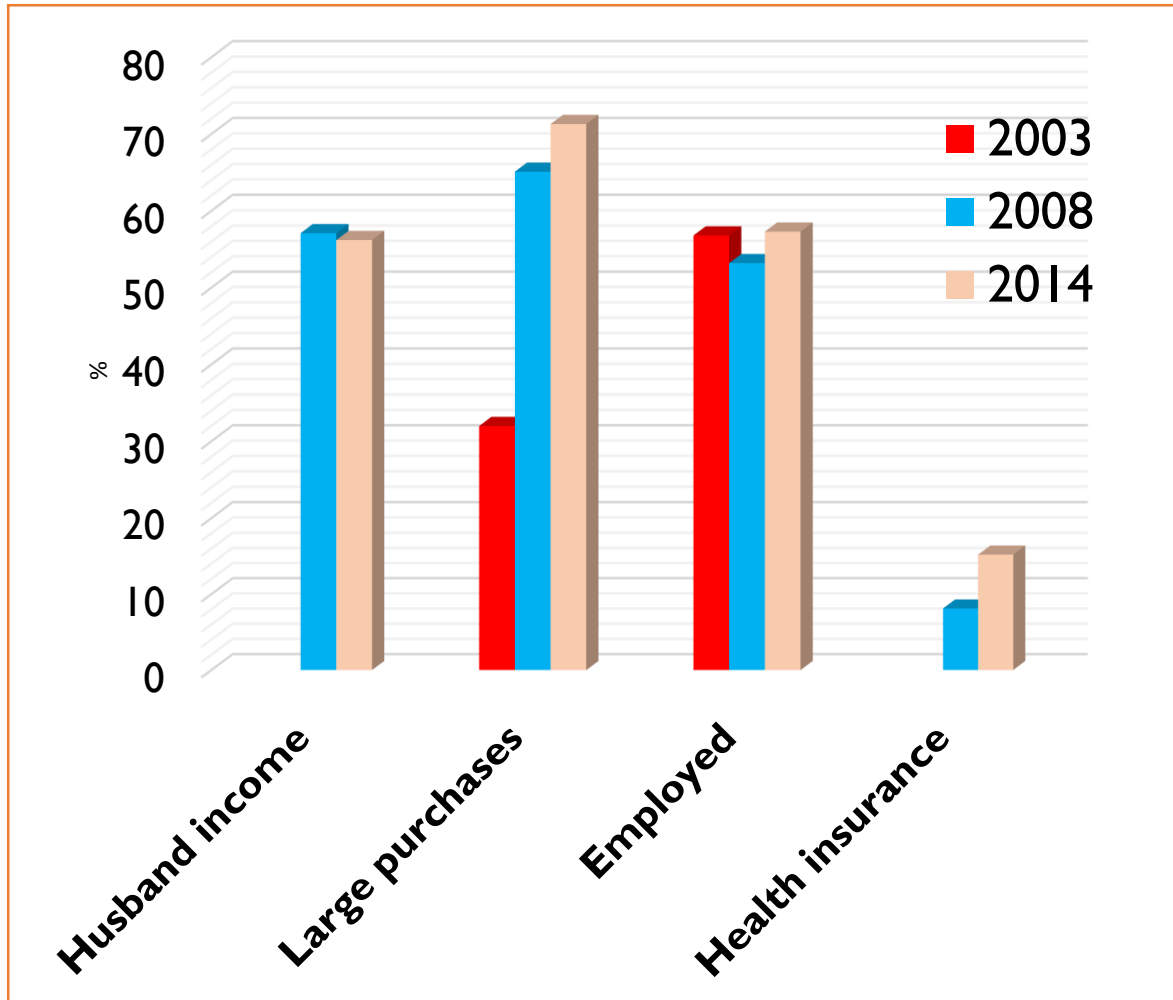
$$CN_i = \alpha_0 + \lambda_i T + \beta_i W_i + \pi_i DID + \delta_i HH + \mu$$

- Where  $T$  is a year dummy representing period when WE policy was implemented and  $DID$  is a vector of (DID) variables

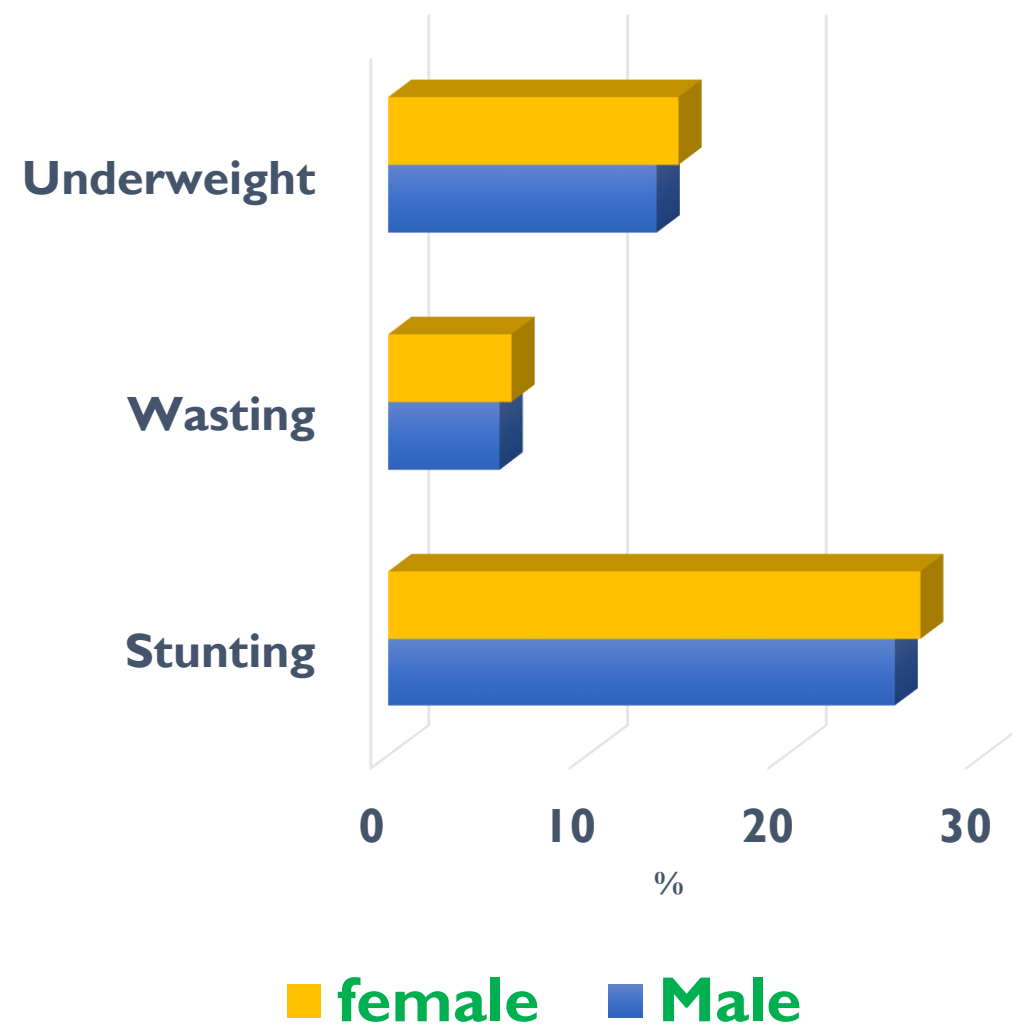
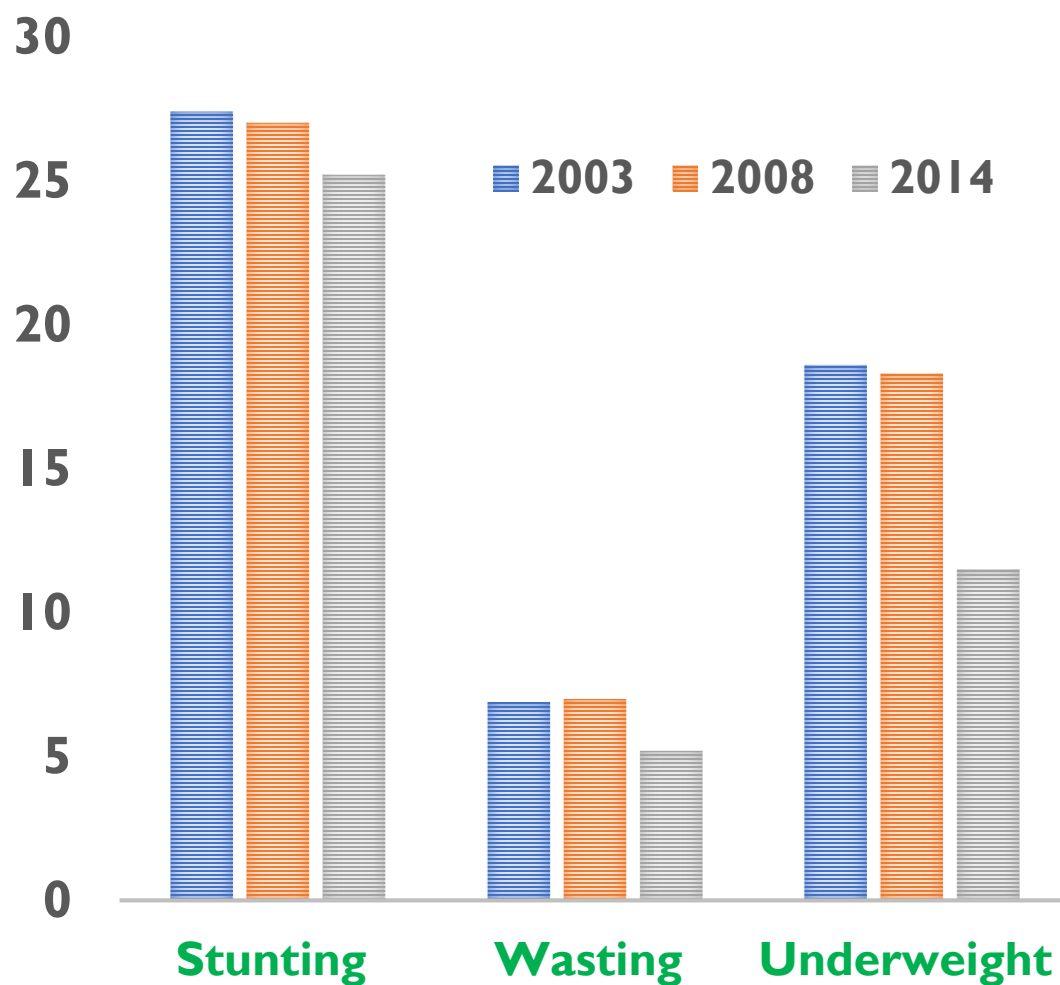
$$DID = (CN_{post}^{treatment} - CN_{pre}^{treatment}) - (CN_{post}^{control} - CN_{pre}^{control})$$



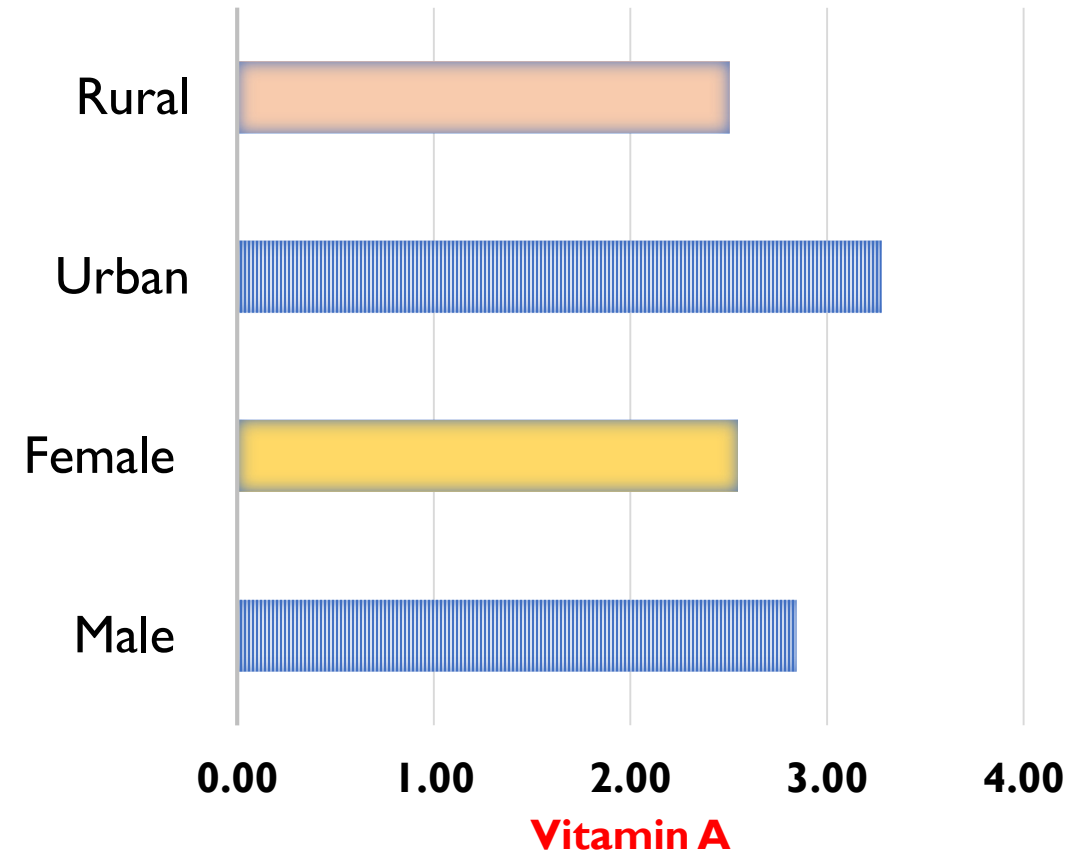
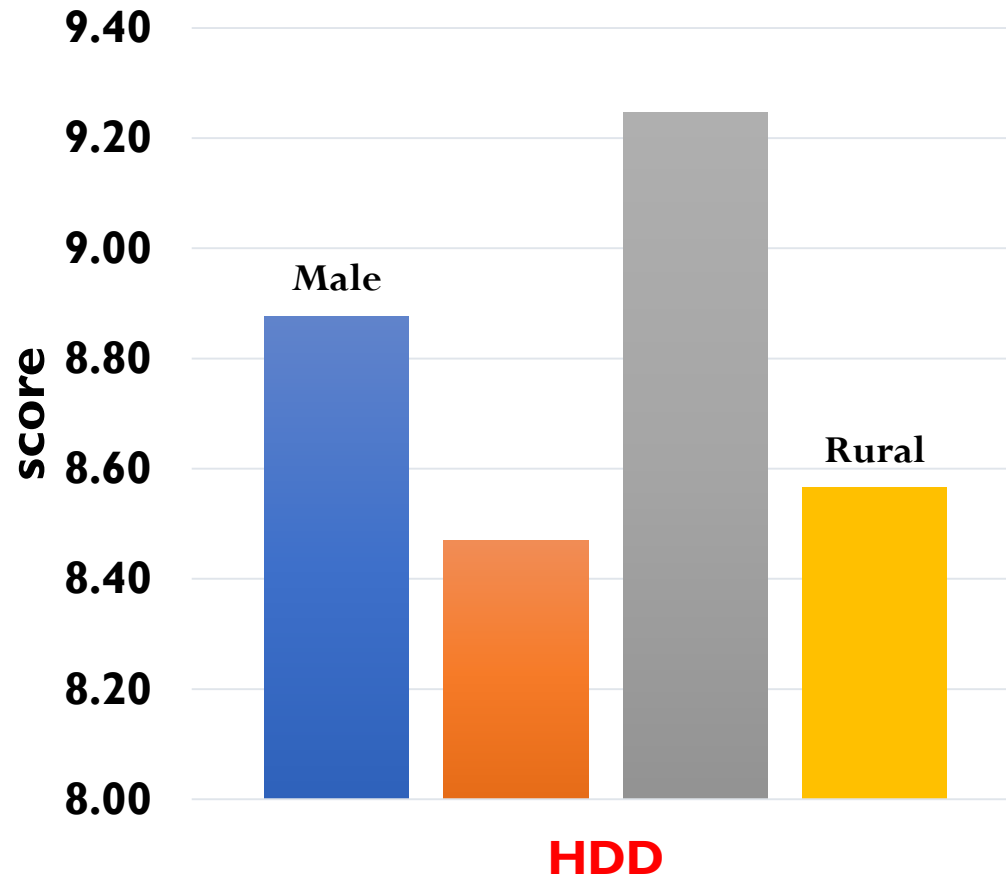
# Changes in WE: 2003-2014



# Changes in nutritional outcomes (2003-2014)



# DD diversity by household category



- Limited diversity & more worse for female headed and rural households

# Effect of WE on DD

Variables	Poisson (HDD)	2SRI Vitamin A
Partner's income	0.135**	0.035***
Large buying	-0.127*	-0.035**
Access to newspaper	0.153***	0.042***
Mobile phone	0.394***	0.090***
Listens to radio	0.190***	0.043***
Watch TV	0.157***	0.017*
Water time (minute)	-0.002***	-0.001***
Firewood type	-0.109	-0.023
Owens land	0.226***	-0.021
Owens agricultural land	0.150**	0.112***
Owens house	-0.085	0.015
Owens fridge	0.658***	0.170***
Health Insurance	0.102	0.064***



# Effect of WE on DD cont.....

Variables	Poisson (HDD)	2 SRI Vitamin A
No education		-0.187***
Primary education	0.342***	-0.069***
Secondary education	0.564***	0.001
Higher education	0.582***	
Unemployed	0.126	0.014
Professional	0.137	-0.033
Agricultural		-0.027*
Casual labour	0.121	
Wife beating not justified	0.035	0.006
Marital control	0.08	0.041***
Age of woman (years)	-0.014***	-0.001
Age at first sex	0.001	0.000***
Children under 5	0.120***	0.028***
Age difference (years)	0.001	0.00
Household size	0.018	0.004
Not circumcised	0.102	0.114***



## Results; Impact of WE on child nutrition

Dependent variable	HAZ	WHZ	WAZ
Empowerment indicator/ reference period	Coefficient p-value	Coefficient p-value	Coefficient p-value
Primary education (2008)	0.0233 (-0.712)	0.0155 (-0.777)	-0.0045 (-0.935)
Secondary Education (2014)	0.1118* (0.066)	-0.0535 (-0.309)	0.1303** (0.013)
Not circumcised (2014)	0.0641 (-0.434)	0.2135*** (0.003)	0.157** (0.030)
Wife beating not justified (2014)	0.015 (-0.807)	-0.0206 (-0.701)	-0.0108 (-0.842)
Woman is working (2014)	0.1048* (0.088)	0.0035 (-0.947)	0.0375 (-0.489)

## Key findings and messages

- Some positive improvement noted on nutrition, but progress towards targets is too slow
- Circumcision has a negative influence on nutrition – due to its association with other outcomes such as reduced self-esteem and access to education & reduced child birth complications
- Policies that support progression in education, access to employment opportunities and self worth for women appear to have positive impact on nutrition.



# Acknowledgements



BILL &  
MELINDA  
GATES  
*foundation*