Impact of Cash Transfer programs on Food Security and Nutrition: A Cross- Country Analysis

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Background

- Food security and nutrition remains one of Africa's most fundamental challenges.
- With the highest concentration of rural poor, sub-Saharan African countries face the most severe deprivation.
- Over the past decade, cash transfer (CT) programs have been introduced in many African nations

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Objective of the study

- To explore the extent to which government-run CT programs in four sub-Saharan countries affect food security and nutritional outcomes

- To understand impacts variability by the extent of treatment

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CT Programs

- Ghana Livelihood Empowerment Against Poverty (LEAP)
- Kenya Cash Transfer for Orphans and Vulnerable Children (CT-OVC)
- Lesotho Child Grants Programme (CGP)
- Zambia Child Grant (CG) model of the Social Cash Transfer

Main features:

- Unconditional
- Government run
- Similar but not identical target rural populations (labor constrained households)
- Around 20 PPP$ per month, lower for LEAP

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Main characteristics of the evaluations

- Ghana LEAP: Longitudinal PSM. Baseline 2010, follow-up 2012. ISSER
- Kenya CT-OVC: RCT. Baseline 2007, follow-up 2009 and 2011 (we look only at 2009 data). OPM
- Lesotho CGP: RCT. Baseline 2011, follow-up 2013. OPM
- Zambia CG: RCT. Baseline 2010, follow-up 2012. AIR

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Theory of change

- Expected immediate impact is increase in food consumption:

1) Direct, through greater purchasing power
2) Indirect, through greater ag production and crop diversification

- Ultimate longer-term impact is improvement in beneficiaries' nutrition and health

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Outcomes of interest

- Per capita food expenditure & main food groups
- Per capita daily caloric intake
- Dietary Diversity (HDDS, Simpson, Shannon, # food items consumed)
- Share of food expenditure & main food groups, share of caloric intake from main food groups
- Self-reported food security indicators for adults

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Availability of Outcome variables across countries

Outcome variable	Ghana	Kenya	Lesotho	Zambia
Food consumption	Yes	Yes	Yes	Yes
Caloric intake	No	No	Yes	Yes
Dietary diversity	Yes	Yes	Yes	Yes
Self-reported food security	No	No	Yes	Yes

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Methodology

- Binary treatment analysis. Diff-in-diff with baseline covariates adjustment (common set of regressors)
- Continuous treatment analysis. Dose-response function
- Inverse probability weighting to corroborate conditional mean independence assumption (observed characteristics are mean independent from treatment status)

- Currently working on Lesotho estimates

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Main results
Food consumption

1) Only in Zambia a significant increase in overall per capita food consumption (2.5 PPP$) and increases in consumption for several food groups.
2) No changes in % of total expenditure on food
3) In Zambia and Kenya, a significant reduction in the share of consumption of roots and tubers (-4.2% and -1.8%) and of fruits and veggies (-4.6% and -2.2%). In Zambia, increase in the share of pulses and legumes (1.7%), while the increase in Kenya is on animal products (4.2%)
4) Reduction of consumption of animal products and roots and tubers in Ghana

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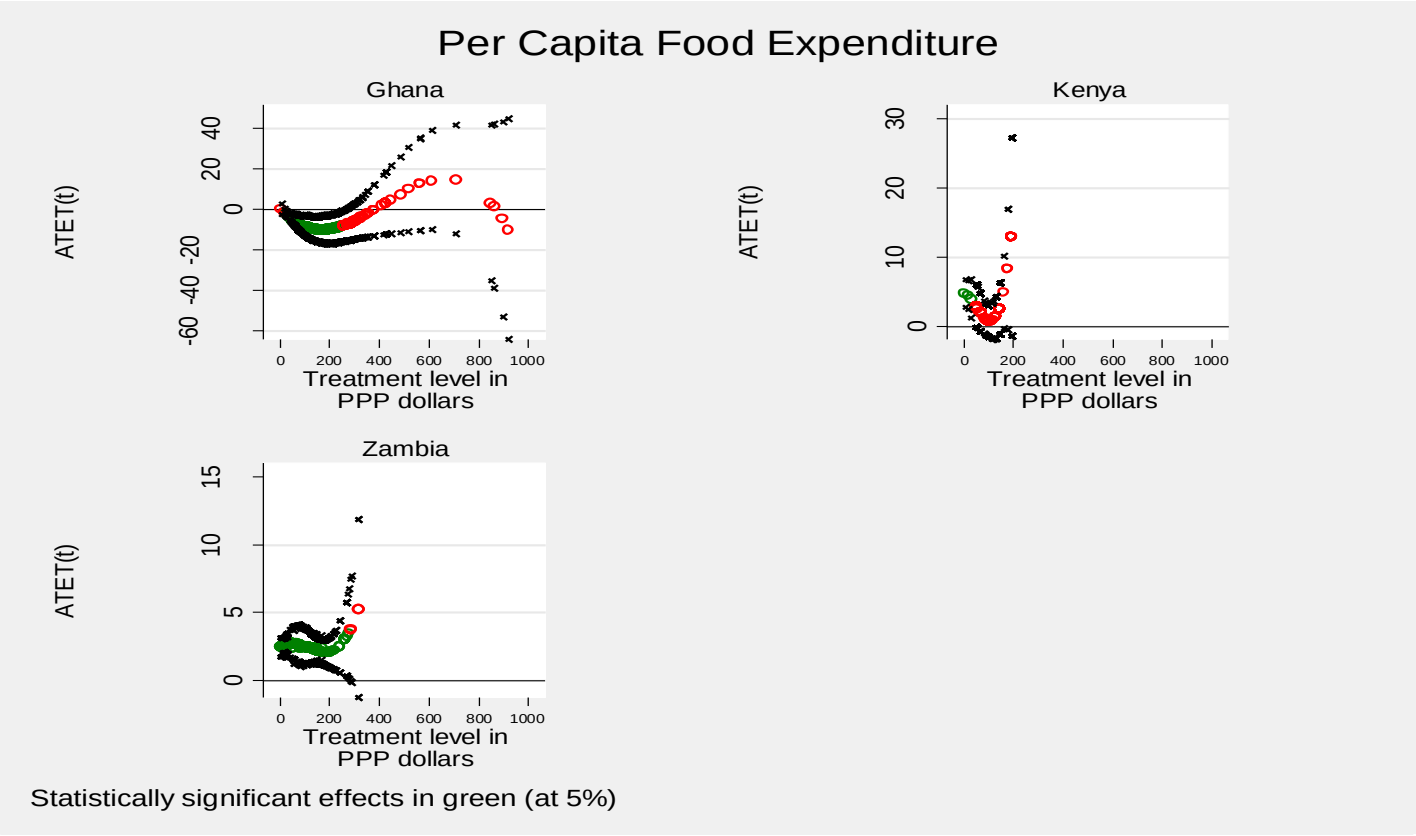
Main results
Dose response function for food consumption



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Main results
Dietary diversity

1) Large statistically significant impacts in Zambia and Kenya on all indicators. Lack of impacts in Ghana
2) Increase in the # food items consumed: 1.5 in Kenya, 2 in Zambia
3) Increase in HDDS: 0.6 in Kenya, 1 in Zambia (scale is 1-12)
4) Increase in Shannon index: 0.09 in Kenya, 0.16 in Zambia (scale is 0-0.916)

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Main results
Caloric intake

1) Positive and statistically significant impact on per capita daily caloric intake in Zambia (256kcal).
2) Increase in the share of calories from pulses and legumes and reduction from roots and tubers (mirroring consumption results)
3) Reduction of undernourishment

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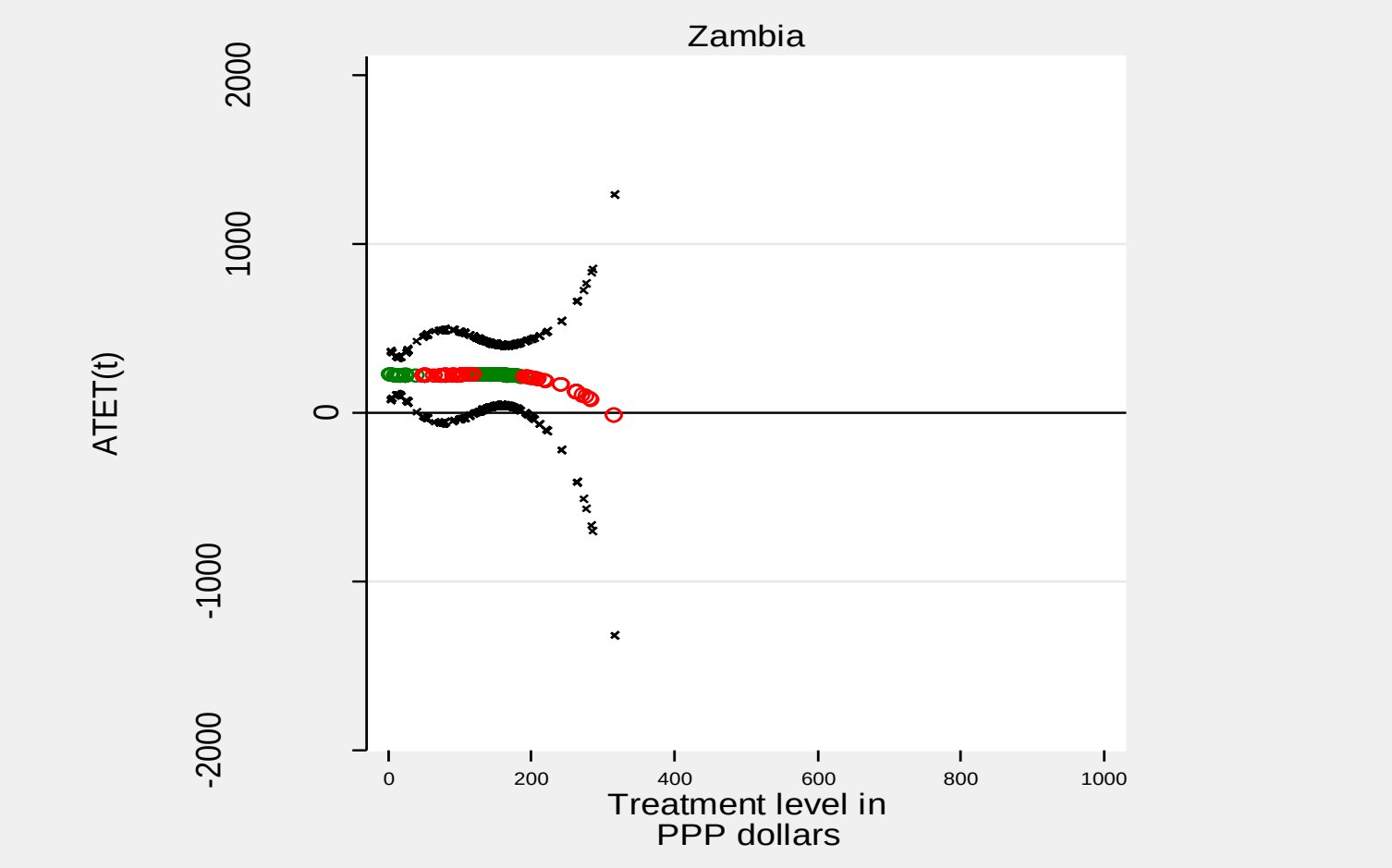
Main results
Dose response function for caloric intake



Main results
Self-reported food (in)security

- Reduction of adults food insecurity in Zambia
- the share of households reporting being hungry and/or going to bed at night hungry reduced by 16 percentage points…
- … while the proportion of households with adults eating fewer and smaller meals decreased by 5.5 and 4.2 percentage points

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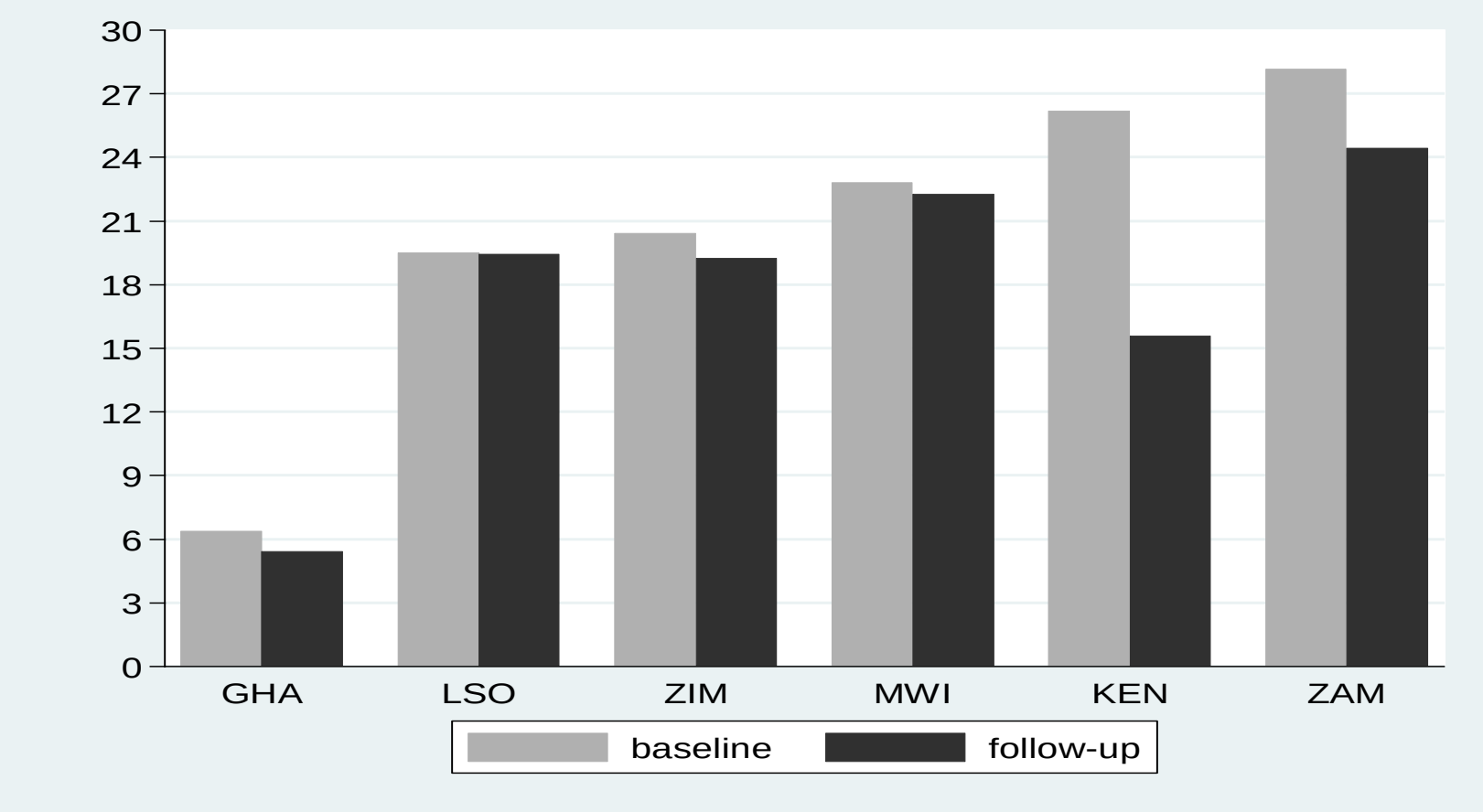
Why the difference in results?
CTs in proportion of household consumption



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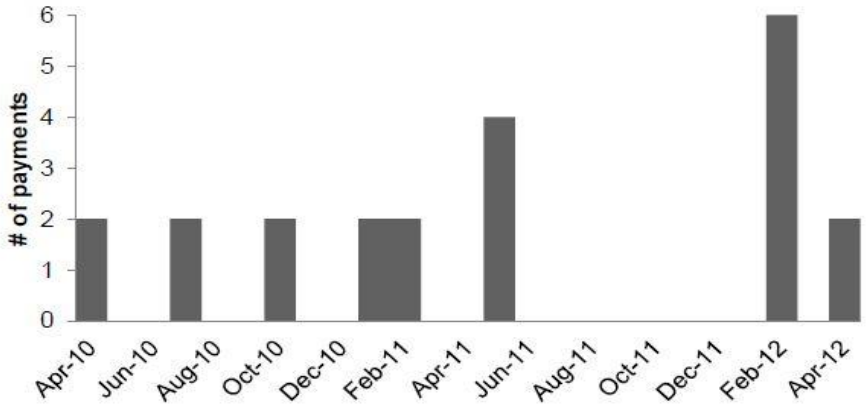
Why the difference in results?

Predictability of payment

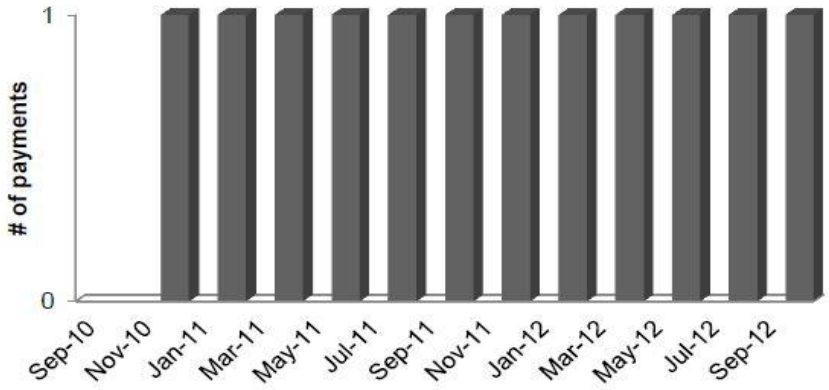
Lumpy and irregular

Regular and predictable

Ghana LEAP



Zambia CGP



Regular and predictable transfers facilitate planning, consumption smoothing and investment

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Limitations

- Survey instruments designed at different points in time with no coordination (cross-country comparison not an evaluation objective)
- Consumption versus acquisition, different recall periods
- Conversion to caloric intake
- Self-reported transfer payments (only in Lesotho access to administrative data)

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