

# The changes in wellbeing of conflict-affected districts in northern Uganda

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- Introduction
- Data and empirical strategy
- Result
- Discussion

# Geographic background





# Introduction

- Armed conflict in northern Uganda broke out in late 1980s and lasted for almost two decades.
- According to the Armed Conflict Location & Event Data (ACLED), there were 2,923 events related to “battle” and “violence against civilians” occurring during 1997 and 2006.

- This study is interested in changes in human wellbeing measured by self-reported health and food consumption when entering the post conflict period

$$U_{i,t} = U(H_{i,t}, C_{i,t})$$

$$H_{i,t} = \phi m_{i,t-1} + (1 - \delta_{i,t-1})H_{i,t-1}$$

- This study attempts to answer three questions
  - Whether the average health status improves in the post conflict period
  - Whether the frequency and pattern of healthcare utilisation change
  - Whether the level of food consumption improved in the post conflict period

# Empirical strategy and data

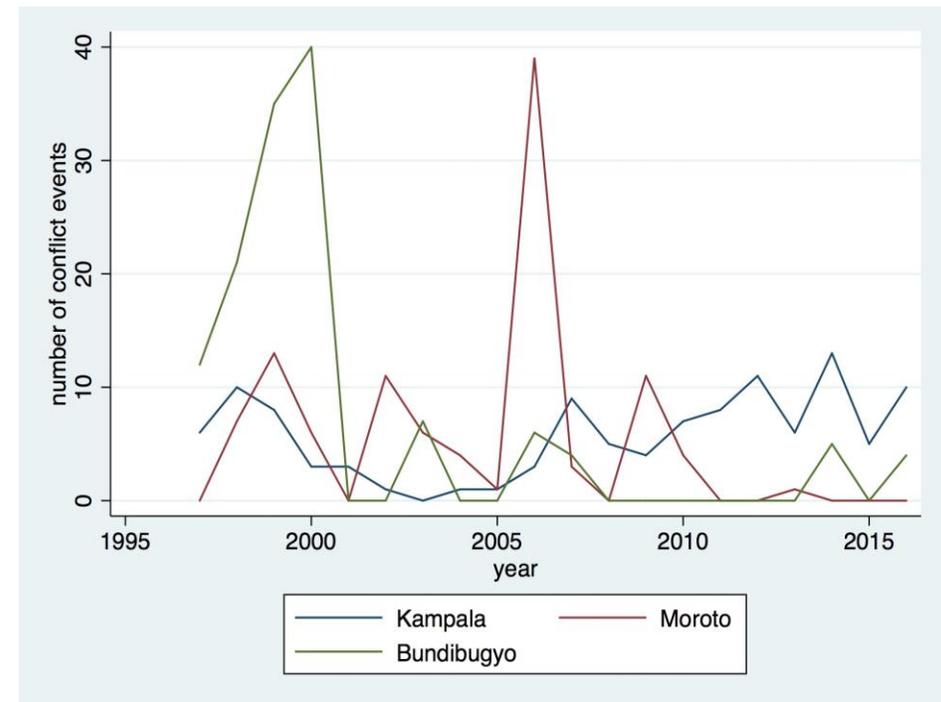
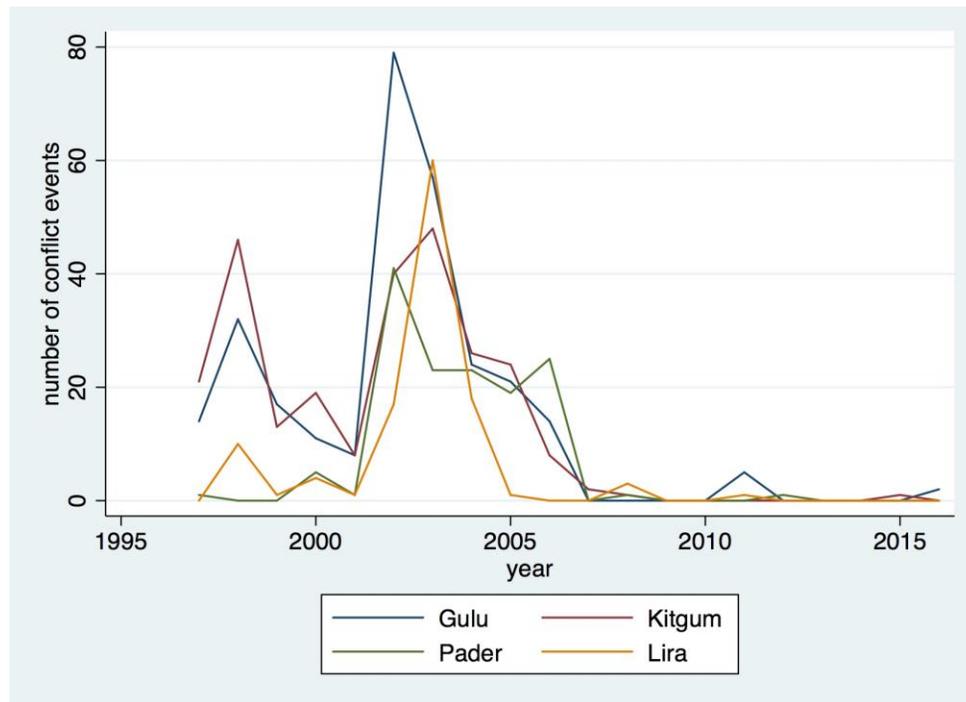
- Difference-in-differences (DiD)

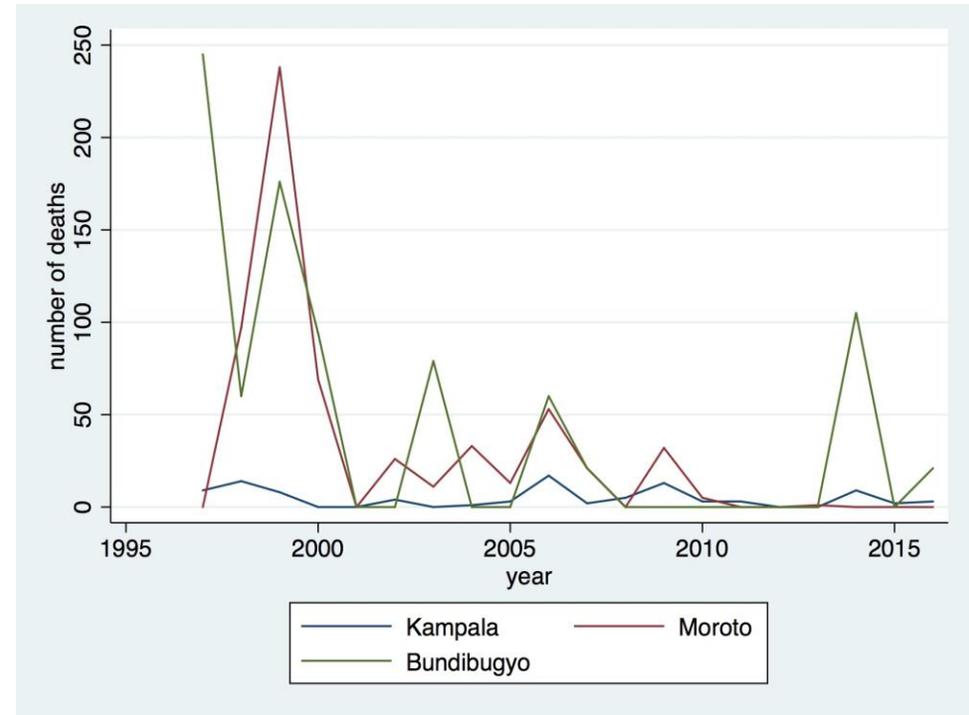
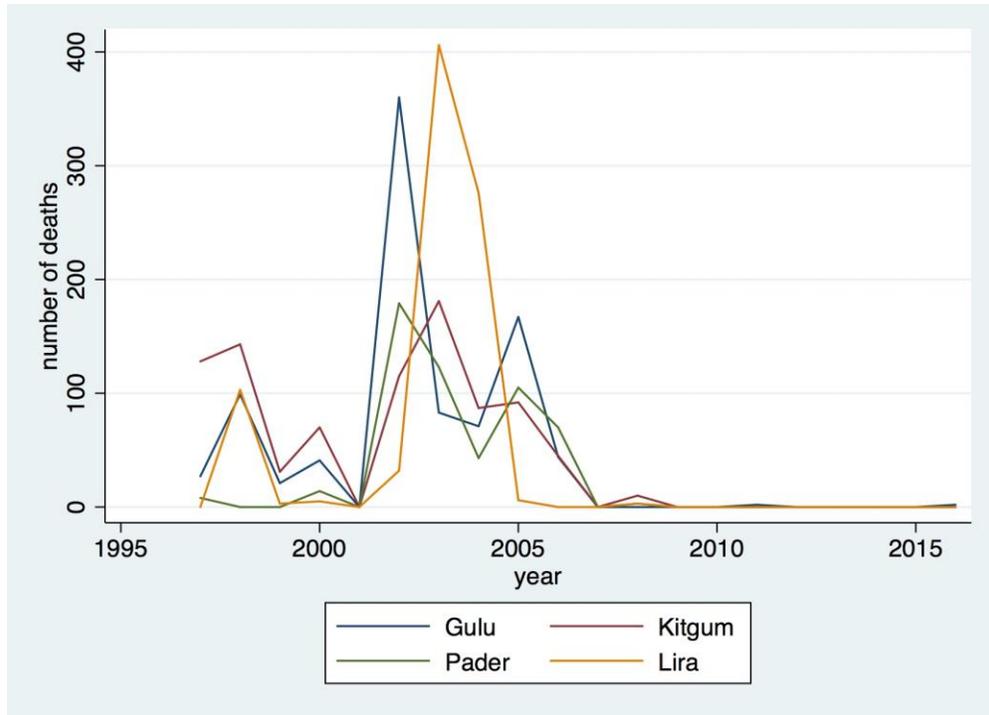
$$\Delta^{pc} = \left( Y_{treatment}^{pc} - Y_{treatment}^{dc} \right) - \left( Y_{comparison}^{pc} - Y_{comparison}^{dc} \right)$$

$$Y_i = \beta_0 + \beta_1 Post_i + \beta_2 T_i + \beta_3 Post_i \cdot T_i + \beta' X_i + \varepsilon_i$$

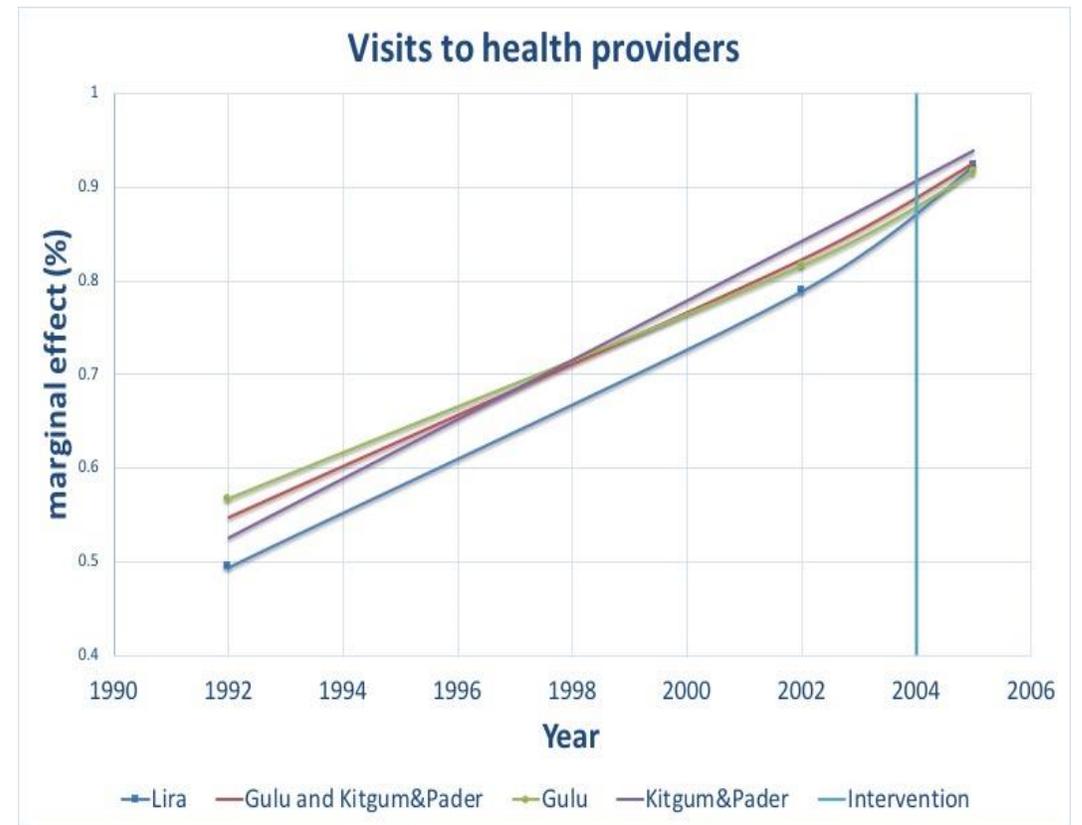
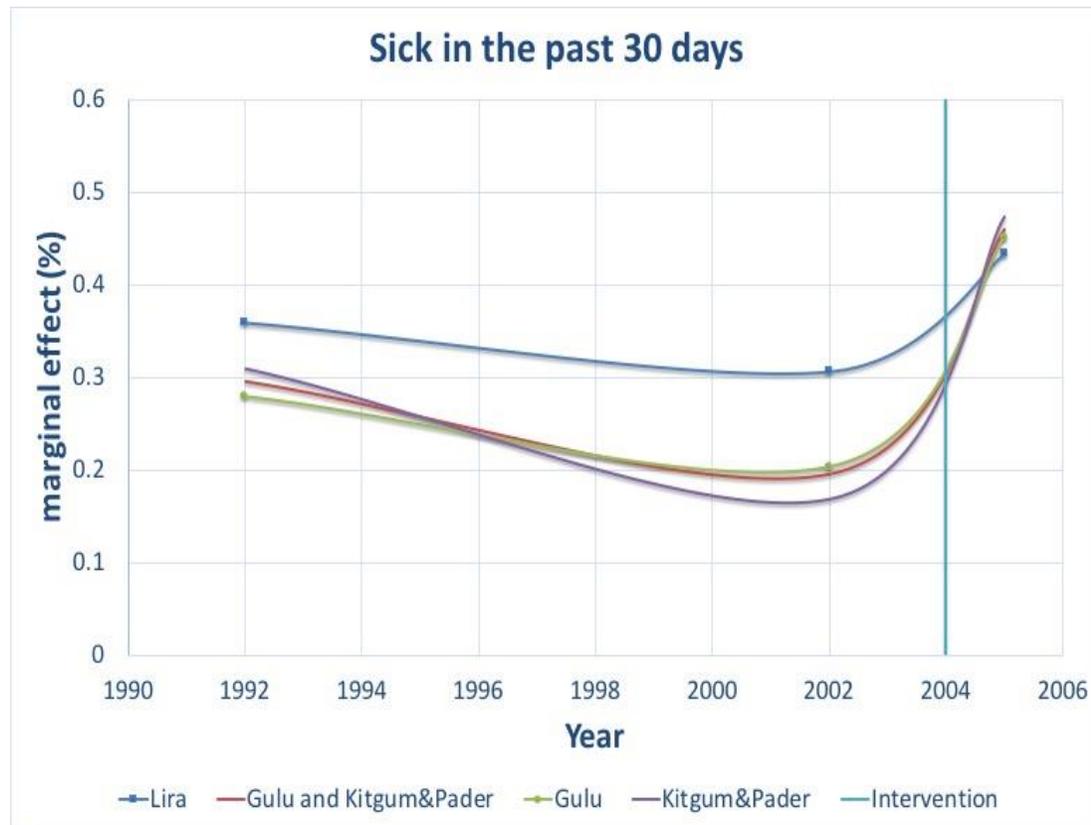
- The Armed Conflict Location & Event Data (ACLED)
  - ACLED is the most comprehensive public collection of political violence and protest data for developing countries.
  - It has recorded approximate 200,000 individual events (battle, headquarters or base established, remote violence, riots/protests, strategic development, and violence against civilians) occurred in Africa and ten countries in South and Southeast Asia since 1997 until 2016.
- Uganda National Household Survey (UNHS)
  - Use Wave 1992/93, 2002/03, and 2005/06 to select the study sample

- Selection of districts and cut-off point of post conflict period
  - More than 100 events (battle and against civilians) during 1997 and 2016

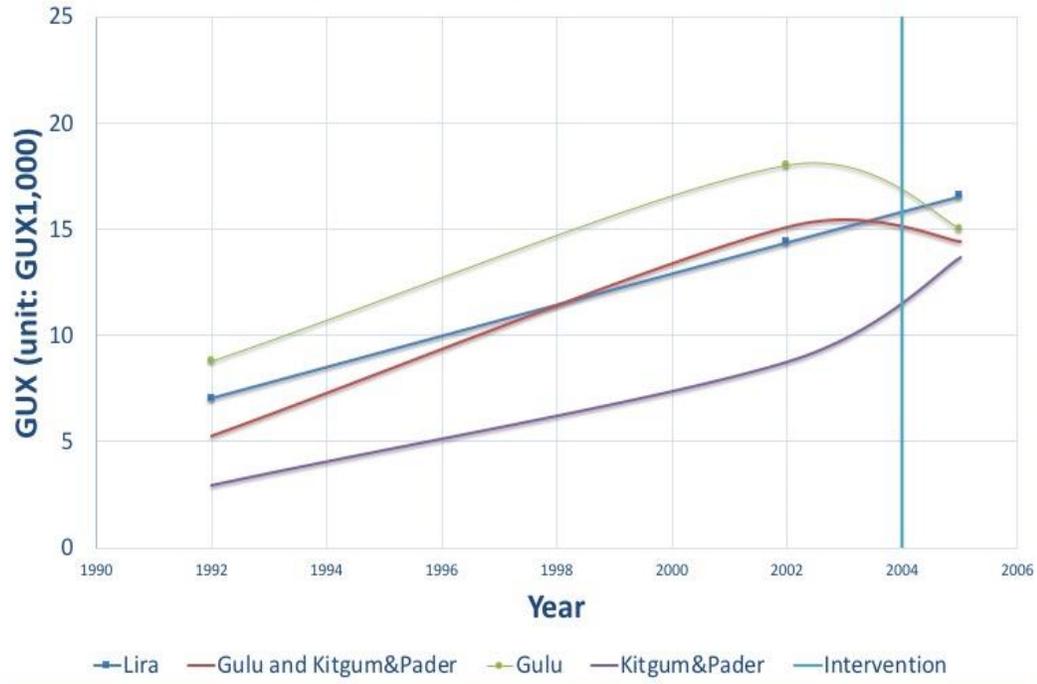




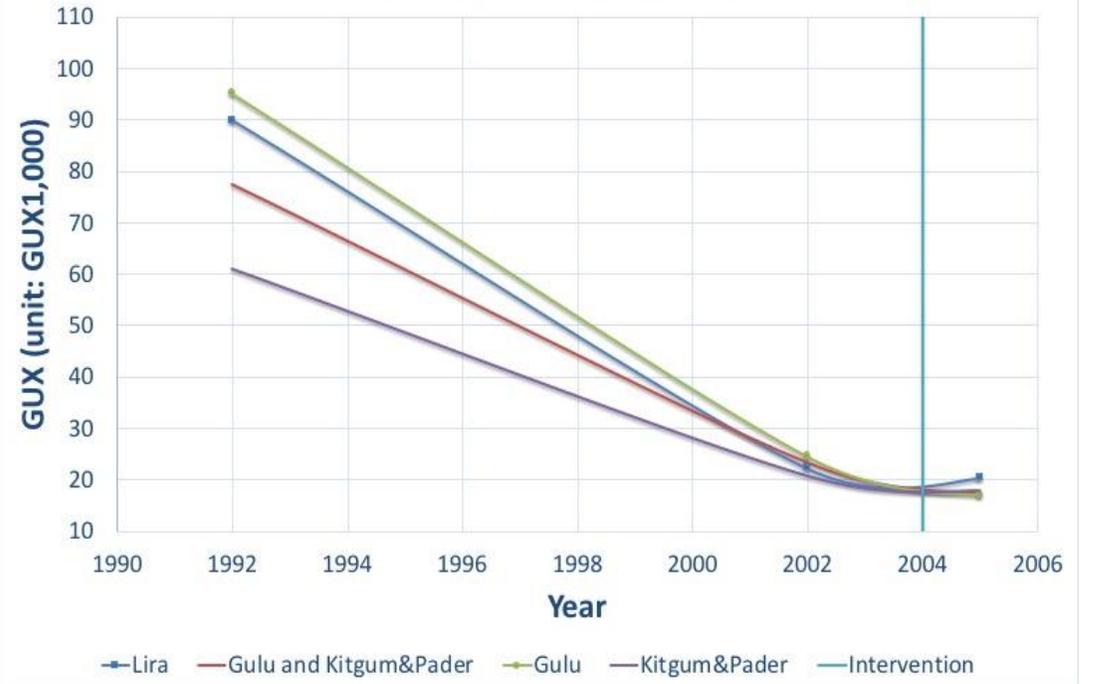
- The trend of study outcomes



### Household health expenditure



### Household food consumption



# Result

	Individual level		Household level	
	(1)	(2)	(3)	(4)
	Self-reported illness	Visits to health providers	Health expenditure	Total food consumption
	Probit	Probit	OLS	OLS
	Marginal effect (Delta-method S.E)	Marginal effect (Delta-method S.E)	Coef. (S.E)	Coef. (S.E)
Post	0.160** (0.018)	0.313** (0.033)	-0.358 (2.703)	-47.16** (4.593)
Treatment	0.075** (0.013)	-0.004 (0.021)	1.276 (1.899)	-6.925 (3.578)
Post*Treatment	-0.090** (0.024)	0.002 (0.045)	3.364 (3.463)	11.72 (6.092)

# Result

- Changes in study outcomes in the post conflict period

	Individual level		Household level	
	(1)	(2)	(3)	(4)
	Self-reported illness	Visits to health providers	Health expenditure	Total food consumption
	Probit	Probit	OLS	OLS
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- Subgroup analysis

Subgroup	Self-reported illness	Visit health providers	Household health expenditure	Household food consumption
	Marginal effect (Delta-method S.E)	Marginal effect (Delta-method S.E)	Coef. (S.E)	Coef. (S.E)
Urban	-0.087* (0.040)	0.057 (0.081)	8.601 (8.884)	-4.192 (13.19)
Rural	-0.103** (0.032)	-0.037 (0.056)	-1.544 (2.650)	16.47* (6.510)
Male headed household	-0.103** (0.035)	-0.029 (0.067)	3.733 (3.543)	9.756 (7.315)
Female headed household	-0.077* (0.035)	0.031 (0.061)	0.109 (8.221)	15.00 (10.99)

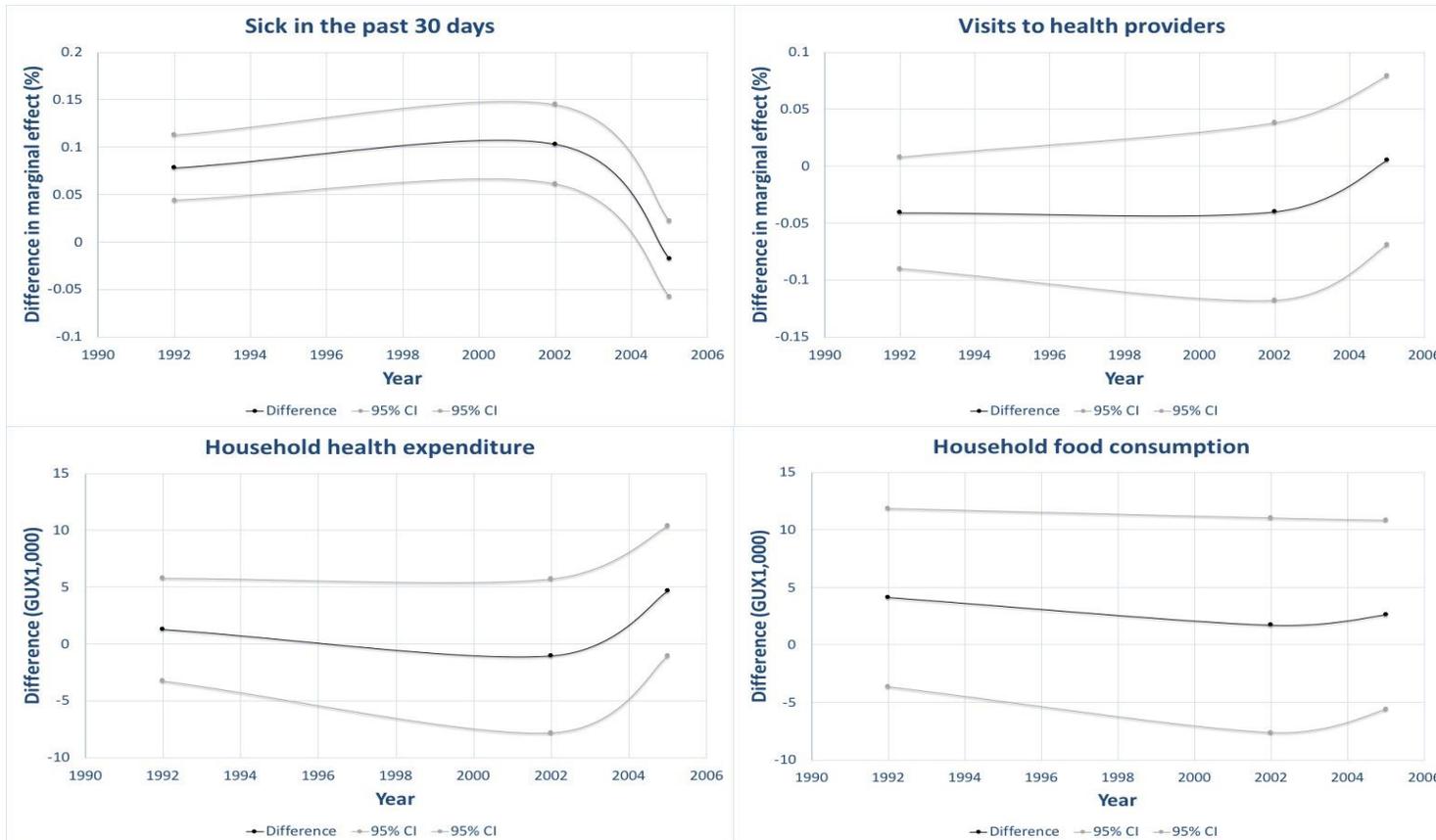
- Changes in healthcare utilisation

	Non-clinic and hospital care	Public clinics and hospitals	Private clinics and hospitals
	Marginal Eff. (Delta-method S.E)	Marginal Eff. (Delta-method S.E)	Marginal Eff. (Delta-method S.E)
All sample	-0.064* (0.031)	-0.039* (0.019)	0.103* (0.049)
Urban group	-0.117* (0.052)	-0.066* (0.030)	0.183* (0.081)
Rural group	0.009 (0.040)	0.006 (0.024)	-0.015 (0.063)
Male headed household	-0.101* (0.050)	-0.048* (0.024)	0.149* (0.073)
Female headed household	-0.031 (0.038)	-0.024 (0.029)	0.054 (0.067)

- Changes in food sources

	Purchased food	Produced food	Donated food
	Coef.	Coef.	Coef.
	(S.E)	(S.E)	(S.E)
All sample	5.931 (5.280)	4.634* (1.905)	1.158 (1.632)
Urban group	-8.780 (12.84)	0.272 (1.576)	4.316 (2.747)
Rural group	7.994 (4.604)	8.685** (2.678)	-0.211 (2.070)
Male headed household	4.321 (6.312)	5.342* (2.379)	0.093 (1.846)
Female headed household	10.02 (9.531)	1.873 (3.116)	3.107 (3.320)

- The evolution of study outcomes



# Discussion

- This study assigns 2005 as the first year of post conflict period for Lira district whereas the end of conflict was officially announced in late 2006. Therefore, strictly speaking, the changes in wellbeing we observe appear in the transition from the actual end of conflict to officially peaceful settlement.
- Every condition in this period is expected to be similar to during conflict apart from the frequency of conflict events.
- Understanding changes in human wellbeing provides useful insights into urgent needs in the rebuilding process in northern Uganda.

- We draw three main conclusions
  - the self-evaluated health significantly improves in the early stage of post conflict period and it is improved in all subgroups.
  - previous studies find that private providers fill gaps where no or little public providers are available (De Costa and Diwan, 2007; Konde-Lile et al., 2010) and our study, further, reveals that visits to private clinics and hospital increases in the post conflict period and the majority of visits are shifted from non-clinics and hospitals though the incidence of visits does not change significantly.
  - in the first year after conflict food consumption in rural households increases and the majority is derived from produced food.