



# Educational assortative mating and demographic outcomes in Eastern Africa

Julia Behrman  
New York University

## Background

- Large social investments in education have led to large increases in women's education in Sub-Saharan Africa
- Increases in women's schooling have important implications for demographic processes
- Focus in the demographic literature on absolute increases in women's schooling

## Relative increases in women's schooling

- School affects fertility by changing women's partnership opportunities.
- Relative increases in women's schooling may influence intra-family dynamics.
  - Bargaining?
  - Backlash?
- Relative increases can occur at the couple level and the community level

# Research outline

- I explore the relationship between relative increases in women's schooling and key demographic processes in several Eastern African countries.
- Measuring relative increases using concepts from the assortative mating literature
  - Hypergamy (husband school level > wife school level)
- Considering declines in men's educational advantage
  - **Regional level**
  - Household level

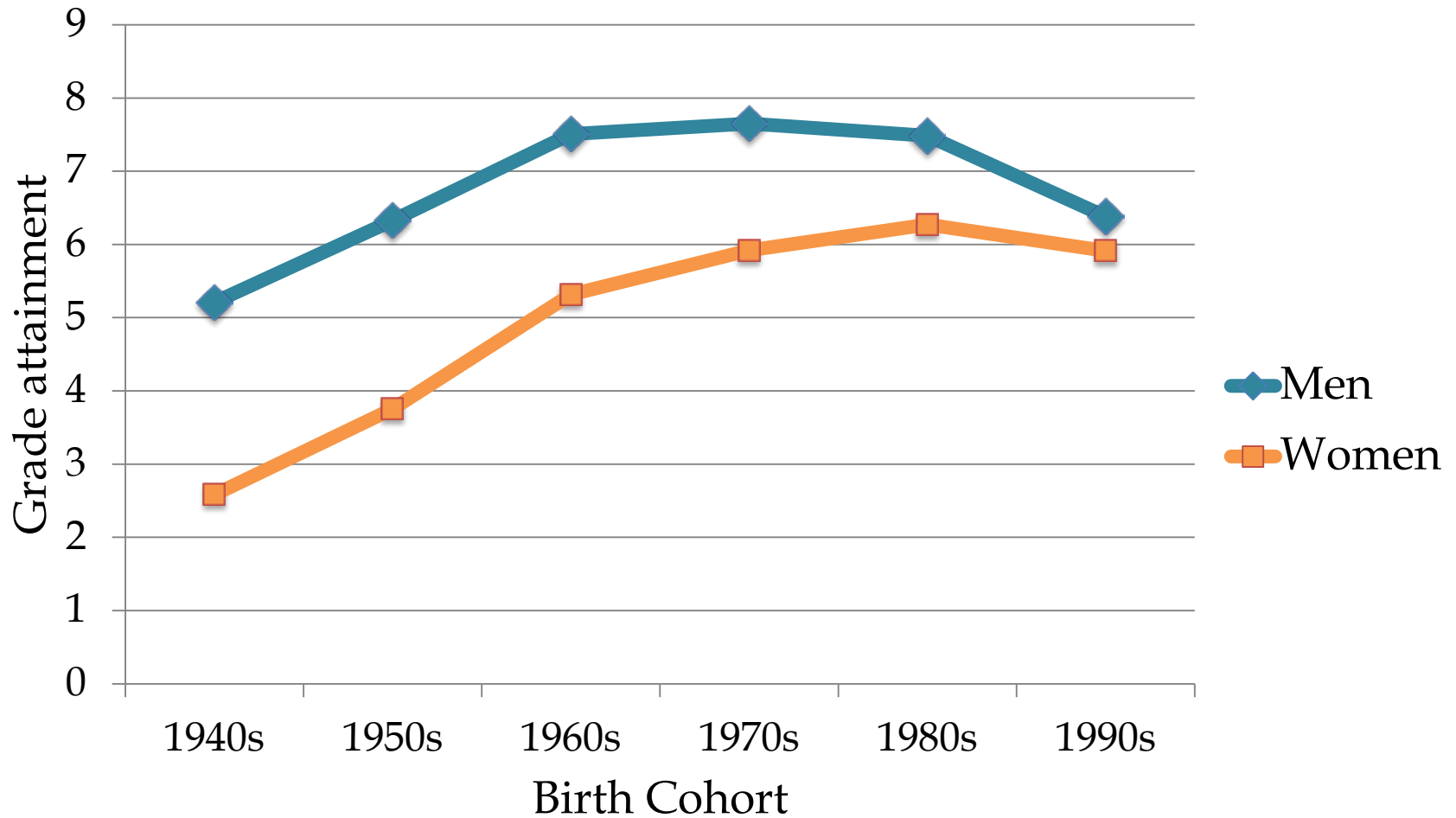
Context

## East/South East Africa

- Kenya, Malawi, Uganda, Zimbabwe
- Large social investments in schooling
- Reductions in gender-school attainment gap
- Marriage is near universal



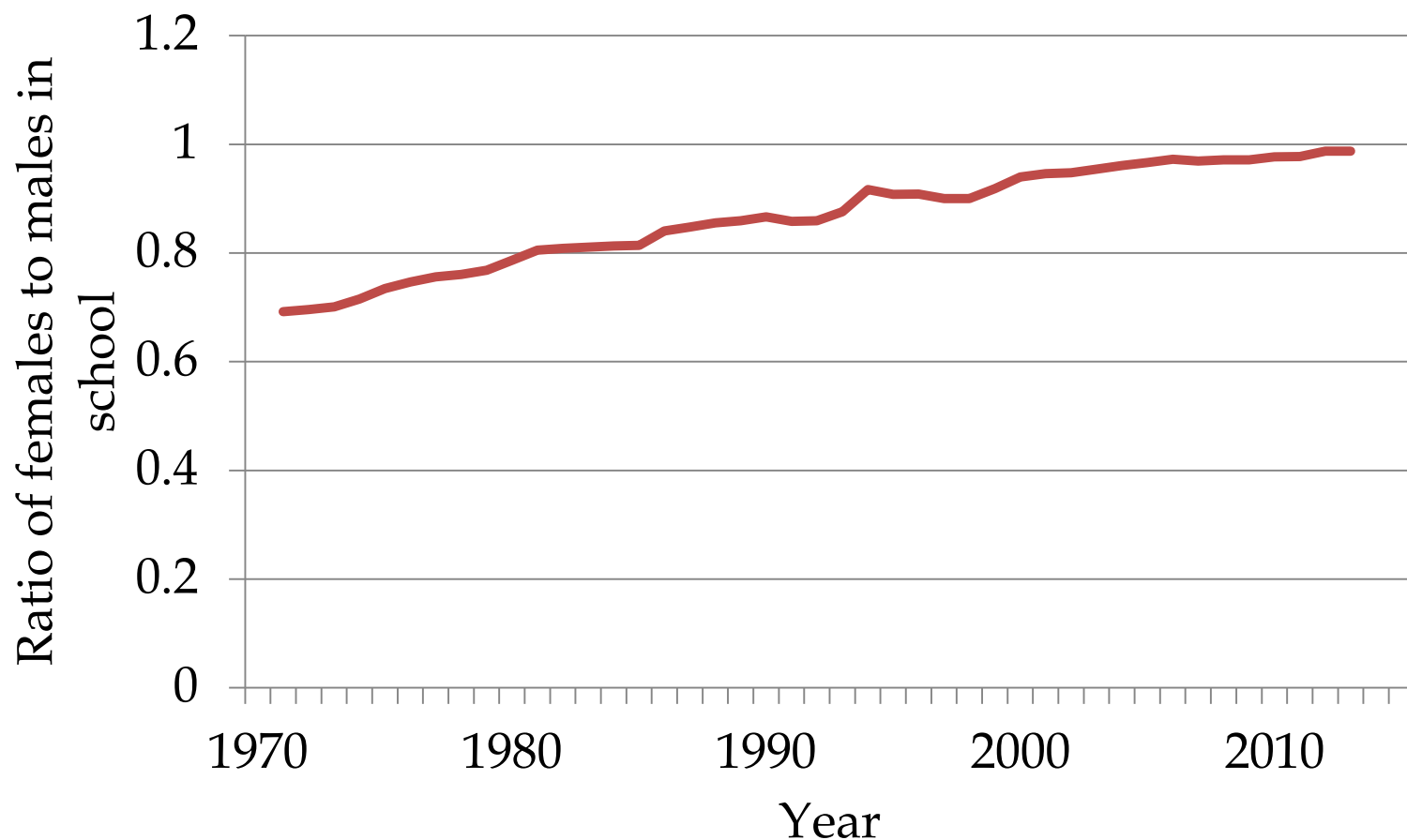
# The gender grade-attainment gap Malawi, Uganda, Kenya, Zimbabwe



Source: Demographic Health Survey

# Ratio of females to males enrolled in primary and secondary school

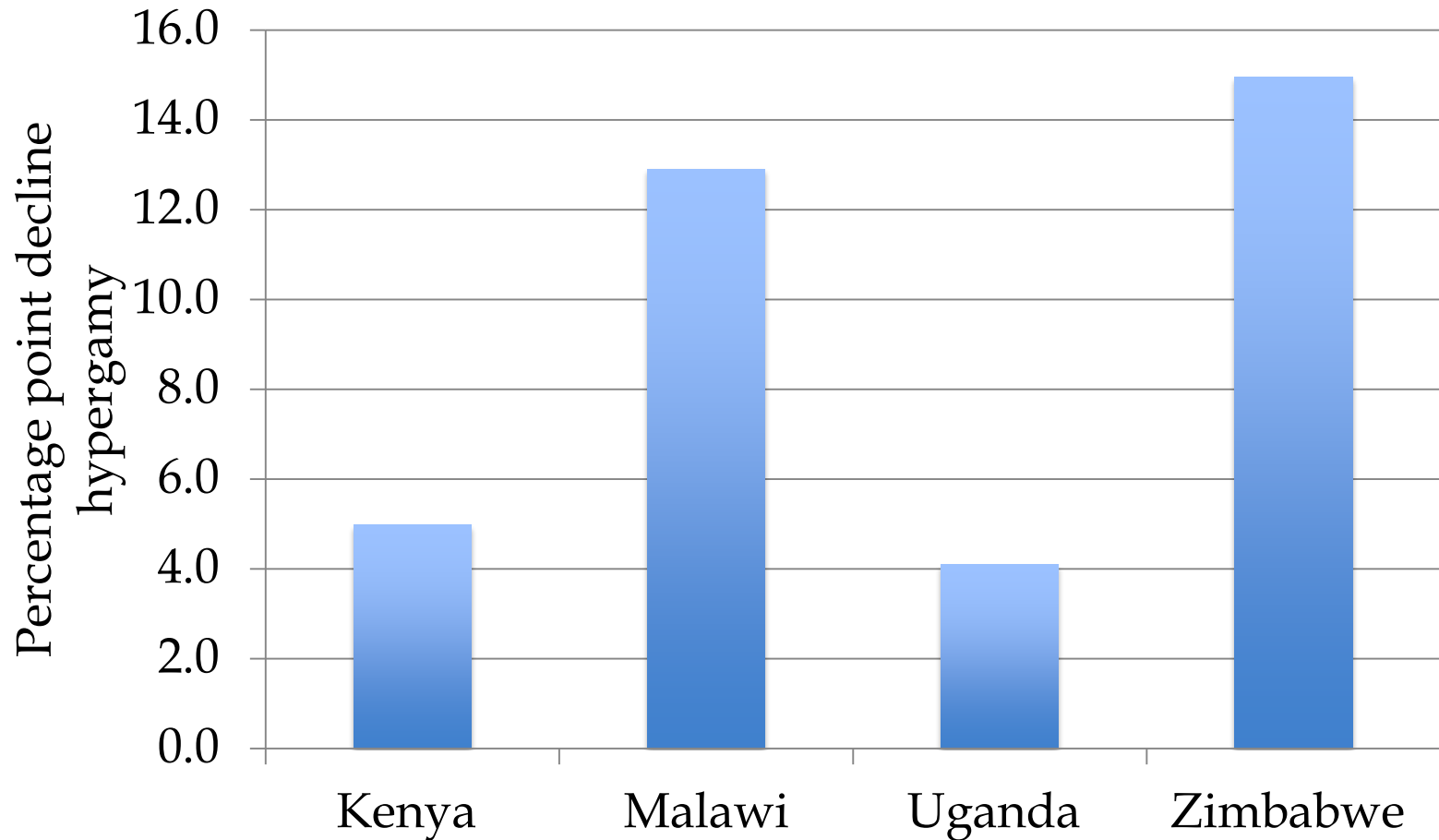
## Malawi, Uganda, Kenya, Zimbabwe



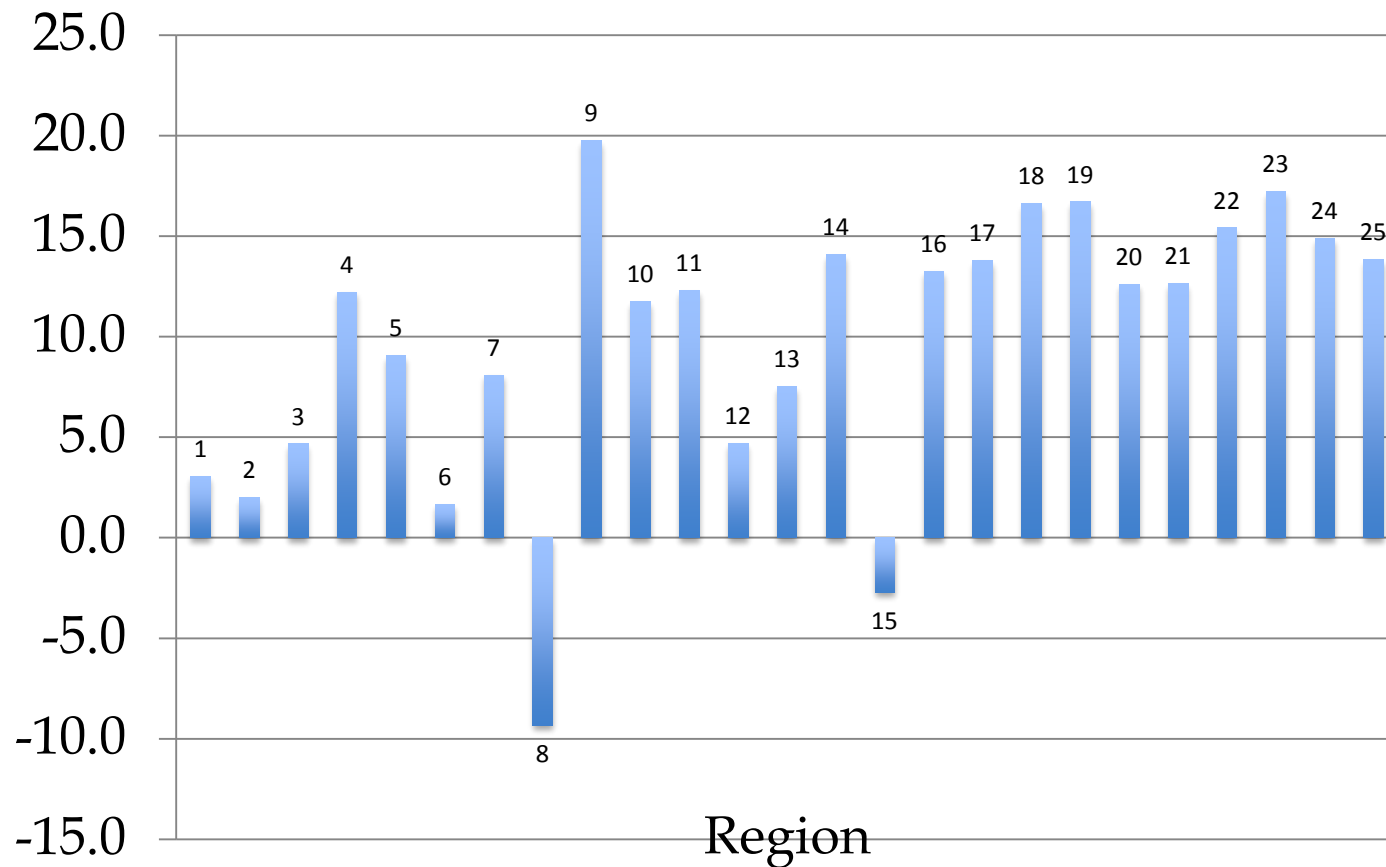
Source: United Nations Educational, Scientific, and Cultural Organization ( UNESCO )  
Institute for Statistics.



# Percentage point decline in educational hypergamy (husband school > wife school) approx. 2000-2010



# Percentage point decline in educational hypergamy at the regional level (approx. 2000-2010)



# Research Question

- What is the relationship between regional declines in educational hypergamy and demographic outcomes?

# Why focus on regional declines?

- Social context matters
- Community and regional characteristics (e.g. SES, attitudes towards IPV) are associated with demographic outcome within families, net of household characteristics (Browning 2002; Koenig et al. 2003; McQuestion 2003; Uthman et al. 2009; Uthman et al. 2011).
- Increases in women's status (employment/education/assets) relative to husbands are associated with changes in HH outcomes (Hornung 1981; Krishnan et al. 2010; Cools & Kotsadam 2013; Weitzman 2014)
- Dearth of literature on how declines in men's educational advantage at regional or community level are associated with household level demographic outcomes

# Data & Methods

# Research Strategy

- Pooled DHS data from Kenya, Malawi, Uganda, Zimbabwe
  - Recent: Kenya 2014, Malawi 2010, Uganda 2011, and Zimbabwe 2010/2011
  - 10 years earlier: Kenya 2003; Malawi 2000; Uganda 2000/2001; Zimbabwe 1999.
- Multilevel model analysis of 10,852 couples (level 1) nested in 25 regions (level 2)
- Explanatory variable of interest
  - Percentage point decline hypergamy at the regional level over the last 10 years

# Research Strategy

- Couple level controls
  - Hypergamous, average schooling, average age at marriage, difference in age, year married, religion, urban residence, household wealth, polygyny, current parity, average age at survey, wife cash employment.
- Regional level controls
  - Percent hypergamous, urban, electricity, women in cash employment; percentage point increase urbanization, electricity, women's cash employment (last 10 years).

## **Outcome 1: Women's recent experience of IPV**

1. Has the wife experienced emotional IPV in the last 12 months?
2. Has the wife experienced physical IPV in the last 12 months?
3. Has the wife experienced sexual IPV in the last 12 months?
4. Has the wife experienced any form of IPV in the last 12 months?



## **Outcome 2: Women's participation in household decision-making (index)**

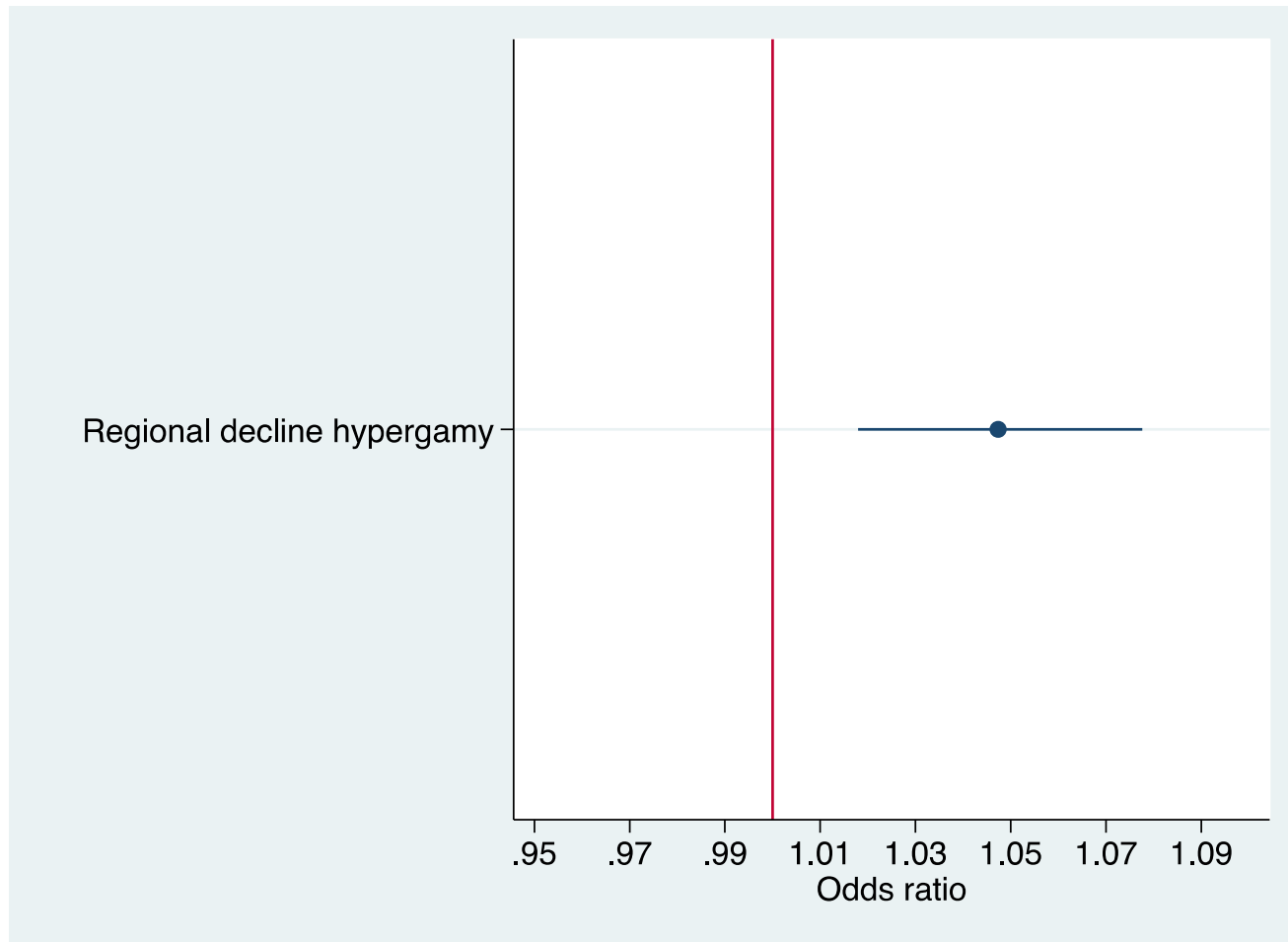
1. Does the wife participate in decisions about making large household purchases?
2. Does the wife participate in decisions about visiting her own family?
3. Does the wife participate in decisions about her own health care?
4. Does the wife participate in decisions about how to spend her husband's income?

## **Outcome 3: Women's control over reproductive health decision-making (index)**

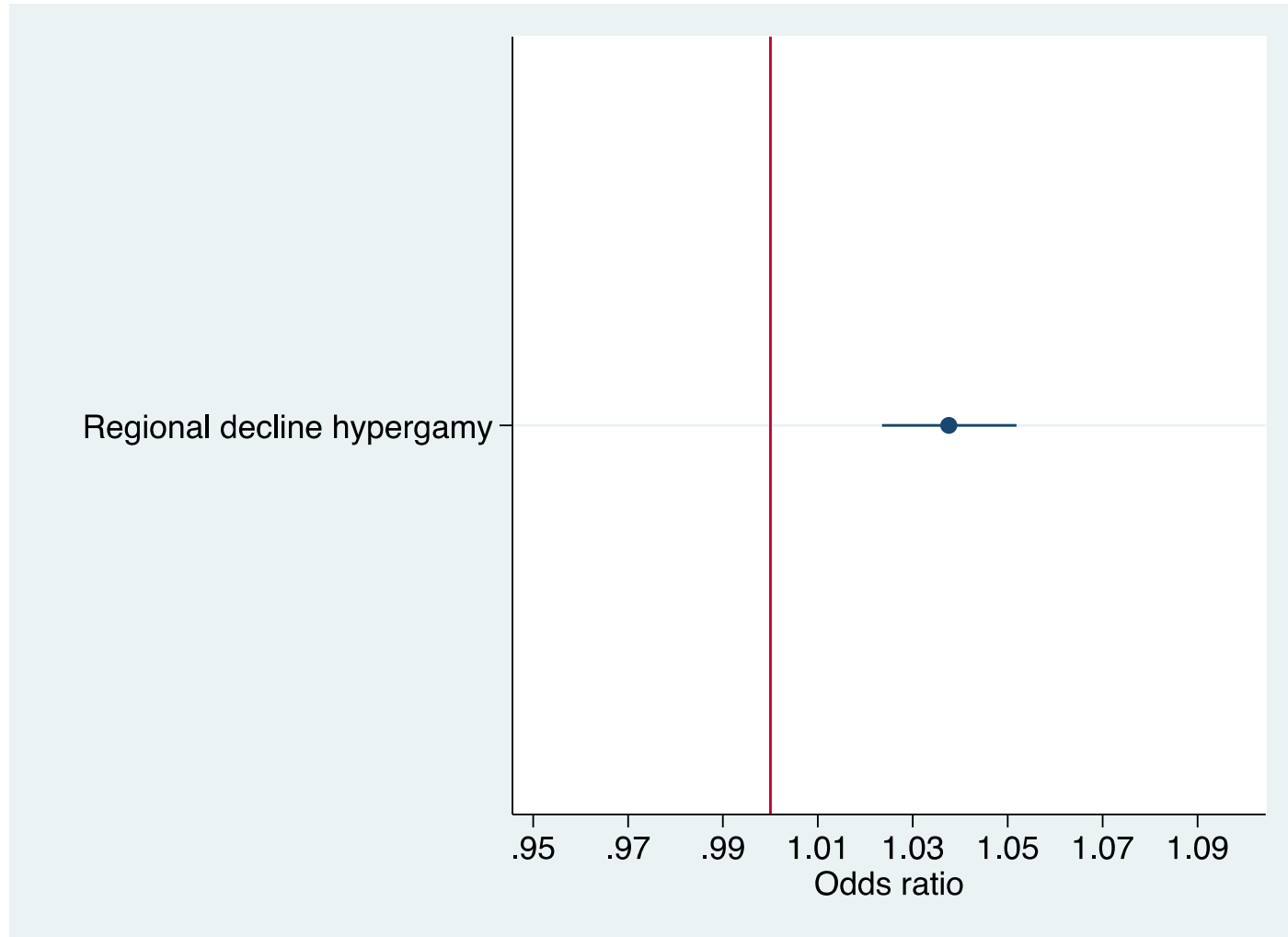
1. Does the wife have an unmet need for family planning?
2. Can the wife refuse sex?
3. Can the wife ask her partner to use a condom?

# Results

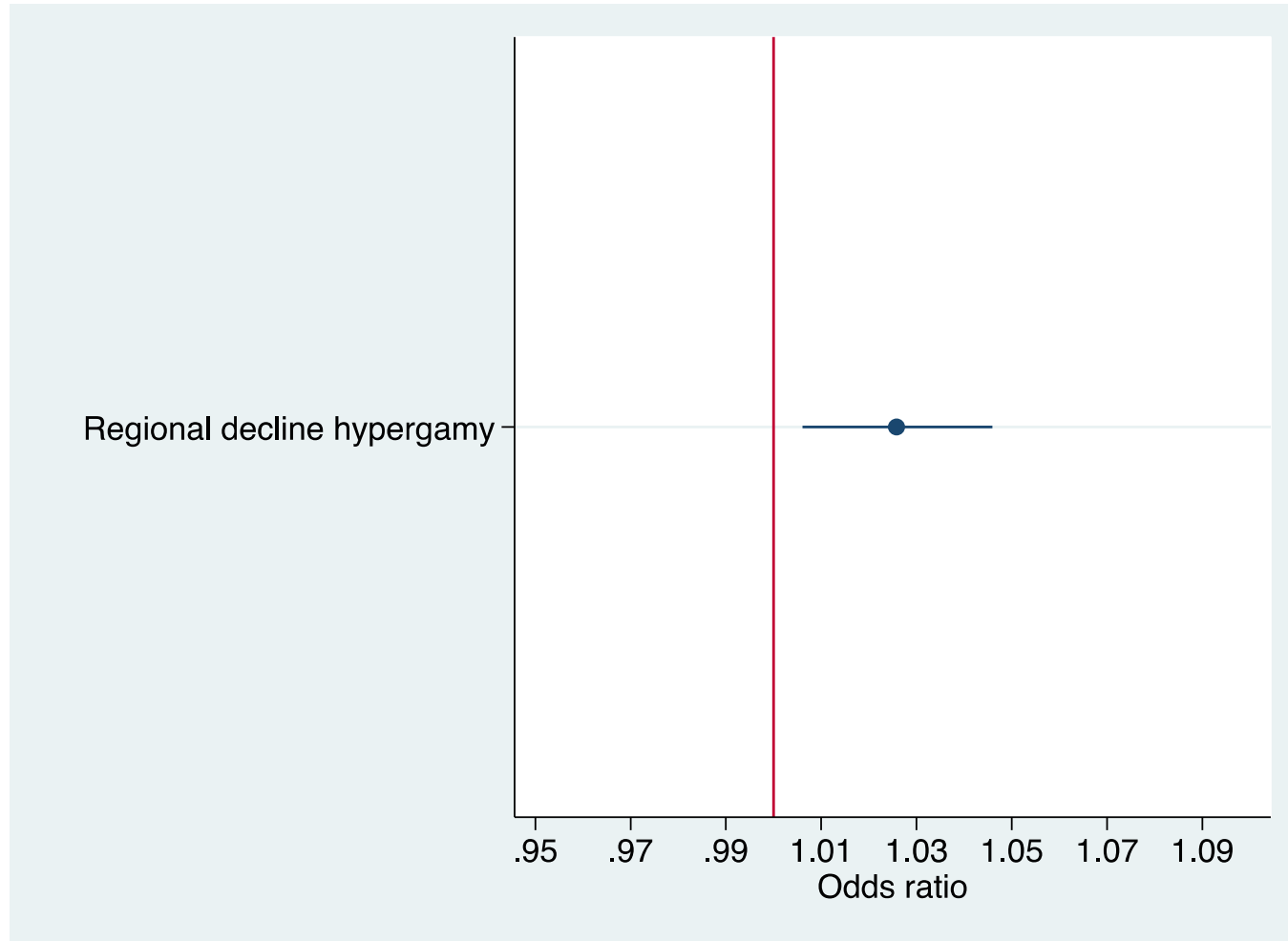
# Multilevel logistic regression analysis of the relationship between regional declines in hypergamy and sexual IPV



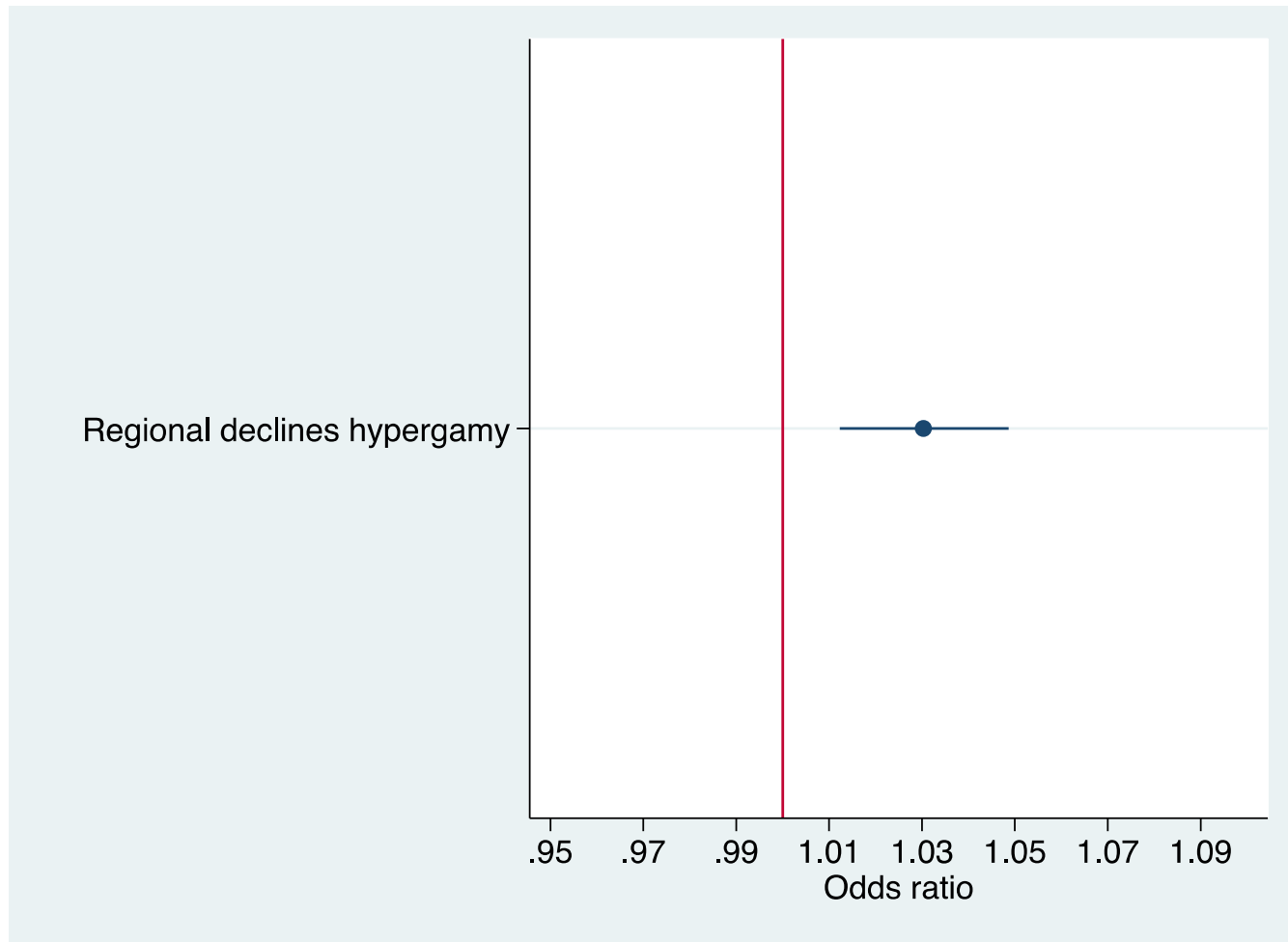
# Multilevel logistic regression analysis of the relationship between regional declines in hypergamy and physical IPV



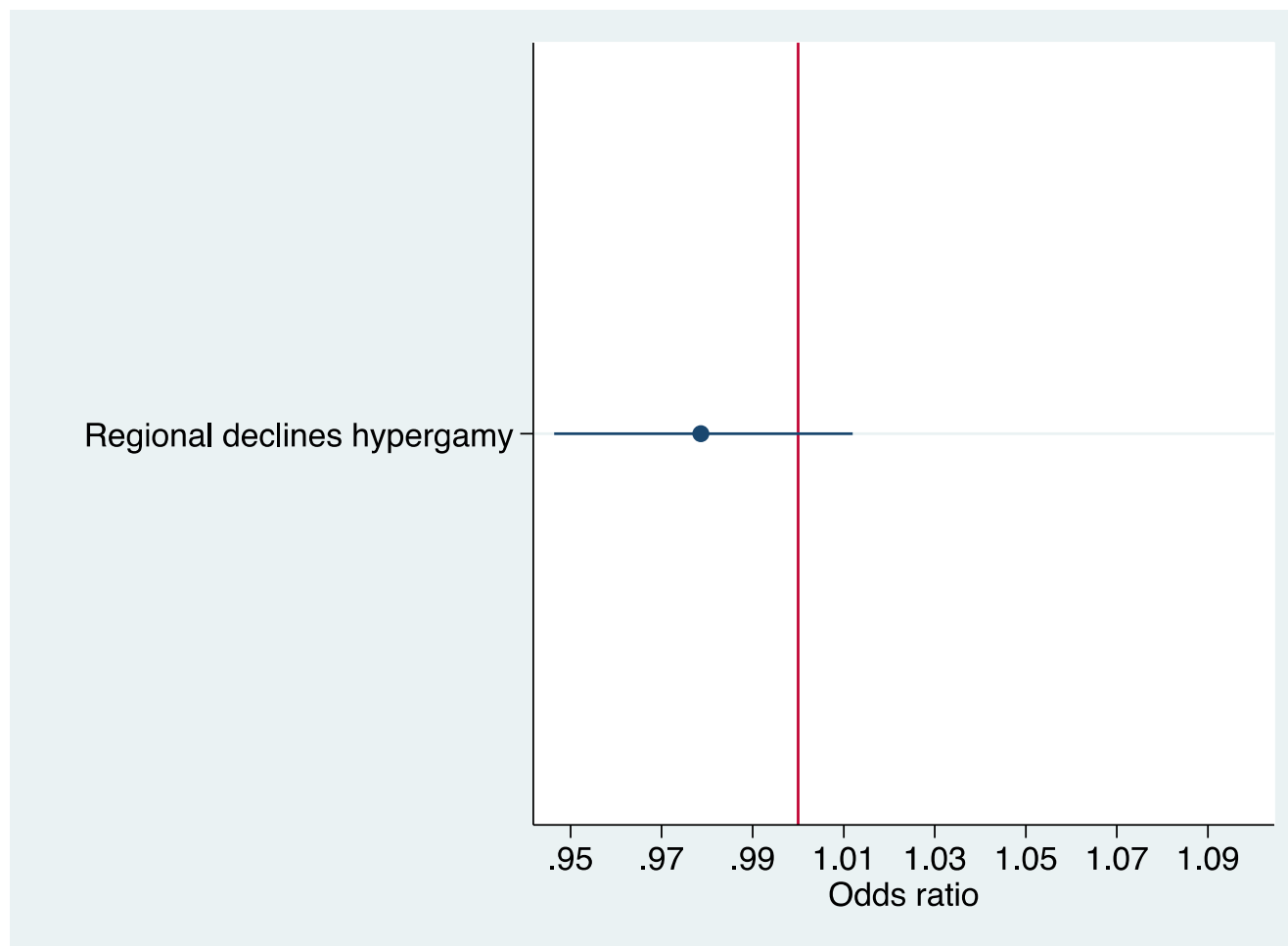
# Multilevel logistic regression analysis of the relationship between regional declines in hypergamy and emotional IPV



# Multilevel logistic regression analysis of the relationship between regional declines in hypergamy and any IPV

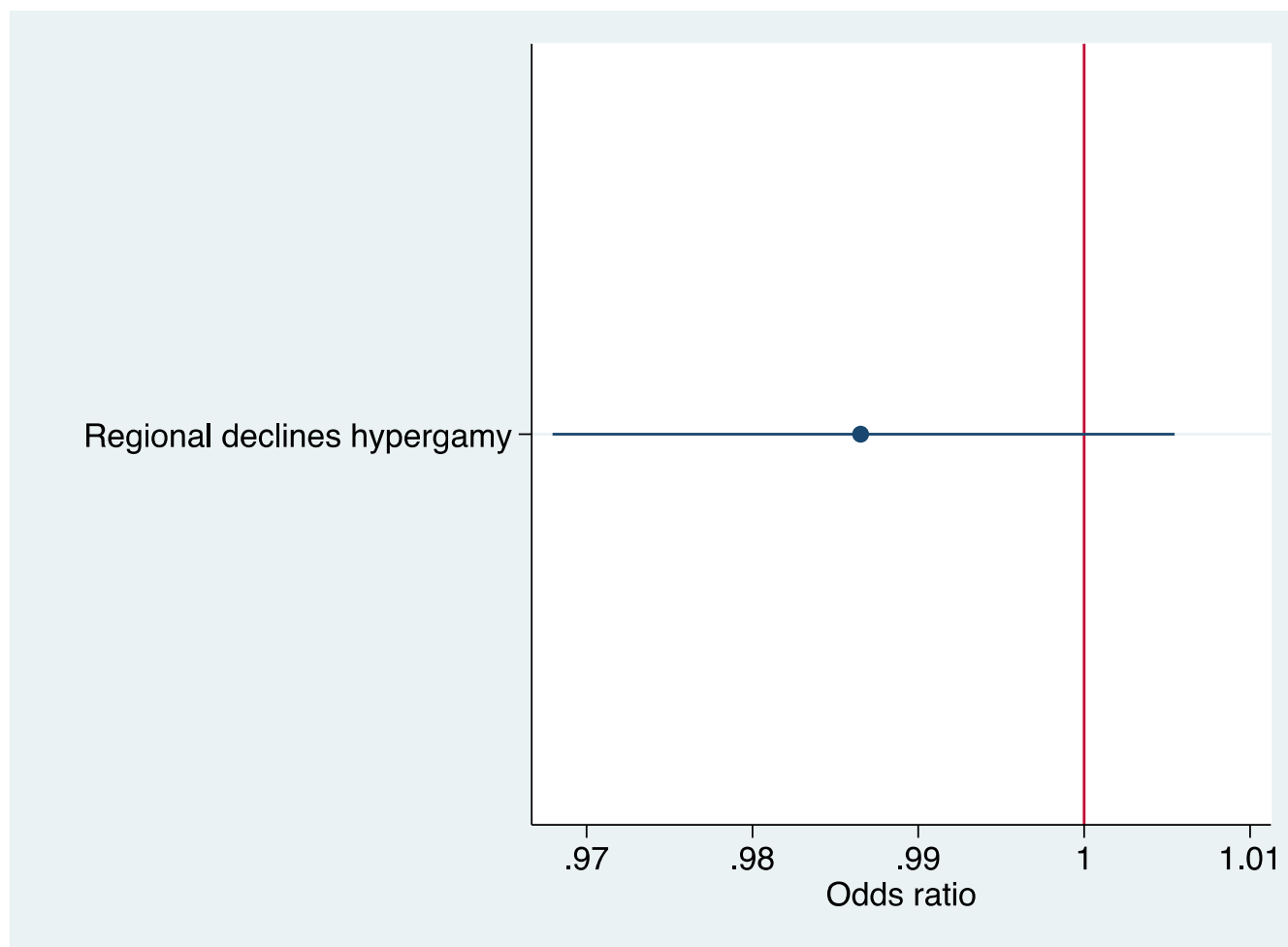


# Multilevel ordered logistic regression analysis of the relationship between regional declines in hypergamy and women's participation in household decision-making





# Multilevel ordered logistic regression analysis of the relationship between regional declines in hypergamy and women's control over reproductive health



# Discussion

## Discussion

- Regional declines in hypergamy over the last decade were associated with increases in wives' experiences of sexual, physical and emotional intimate partner violence at the couple level, net of household and regional socio-economic characteristics.
  - Supports backlash perspective
- However, no significant association between regional declines in hypergamy and women's participation in household decision-making or women's control over reproductive health.
- This diversity of findings speaks to complex and nuanced nature of social change in gender dynamics in which improvements in women's status relative to men at the regional level may be associated with backlash in some – but not all – aspects of family life.

## Discussion & next steps

- Findings highlight that changes in social context matter for household outcomes, net of HH and regional characteristics
  - Bridging a literature on HH level changes in women's status and a literature on relationship between community level characteristics and HH outcomes
- Importance of considering both absolute and relative increases in schooling
- Also exploring on the effect of declines in the male educational advantage at the HH level on demographic outcomes
  - PSM analysis

**Thank you**

# Multilevel logistic regression analysis of the relationship between regional declines in hypergamy and IPV

	(1)	(2)	(3)	(4)
	Sexual IPV last 12 months	Physical IPV last 12 months	Emotional IPV last 12 months	Any IPV last 12 months
Percentage point decline hypergamy	1.05**	1.04***	1.03*	1.03***
	(0.02)	(0.01)	(0.01)	(0.01)
Couple level (n=10,852 )				
Region level (n=25)				

**Multilevel ordered logistic regression analysis of the relationship between regional declines in hypergamy and women’s participation in household decision-making**

	(1)
	Decision-making index
Percentage point decline hypergamy	0.98
	(0.02)
Couple level (n=10,852 )	
Region level (n=25)	

**Multilevel ordered logistic regression analysis of the relationship between regional declines in hypergamy and women’s control over reproductive health**

	(1)
	Reproductive health index
Percentage point decline hypergamy	0.99
	(0.01)
Couple level (n=10,852 )	
Region level (n=25)	