Changes in Family Planning Equity in Ethiopia from 2005-2011

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Introduction

- Health Extension Program (HEP) started in 2003/4 to provide universal primary health care.
- HEP mainly rolled out in rural areas of four major regions.
- HEP should thus decrease health inequity in rural areas – ie, the presence of disparities by socioeconomic status.
- CPR improved in Ethiopia between 2005 – 2011.

Study Question

- Were changes in family planning between 2005-2011 equitable (especially in rural areas)?
  - I.e., is it plausible that the HEP made family planning coverage more equitable?

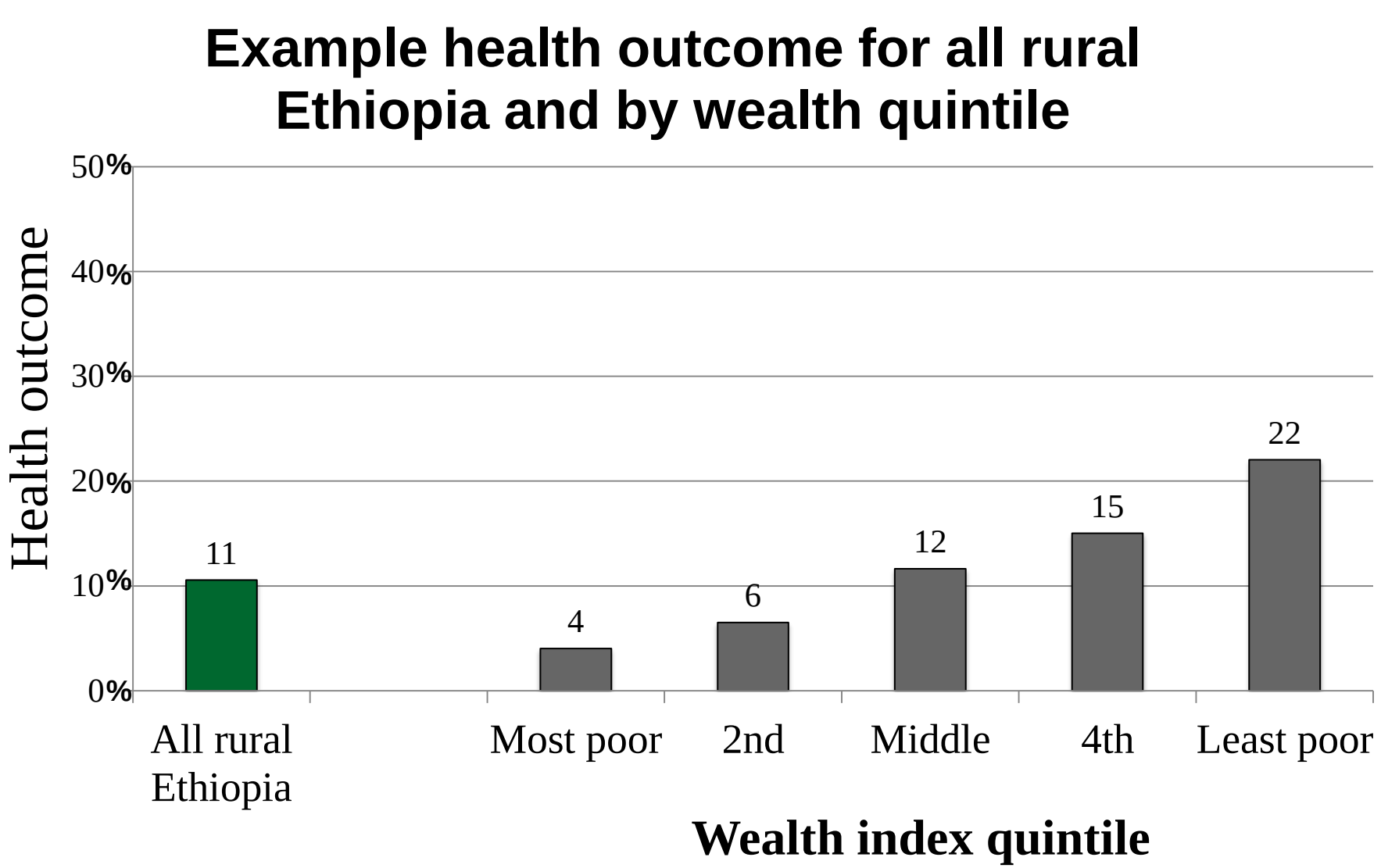
Methods

- Used data from 2005 and 2011 Ethiopian Demographic and Health Surveys (DHS)
- Used EDHS wealth index to define equity
  - The wealth index is constructed using household assets and characteristics and principal components analysis.
  - Households are then divided into five equal wealth groups (quintiles)

Methods, ctd

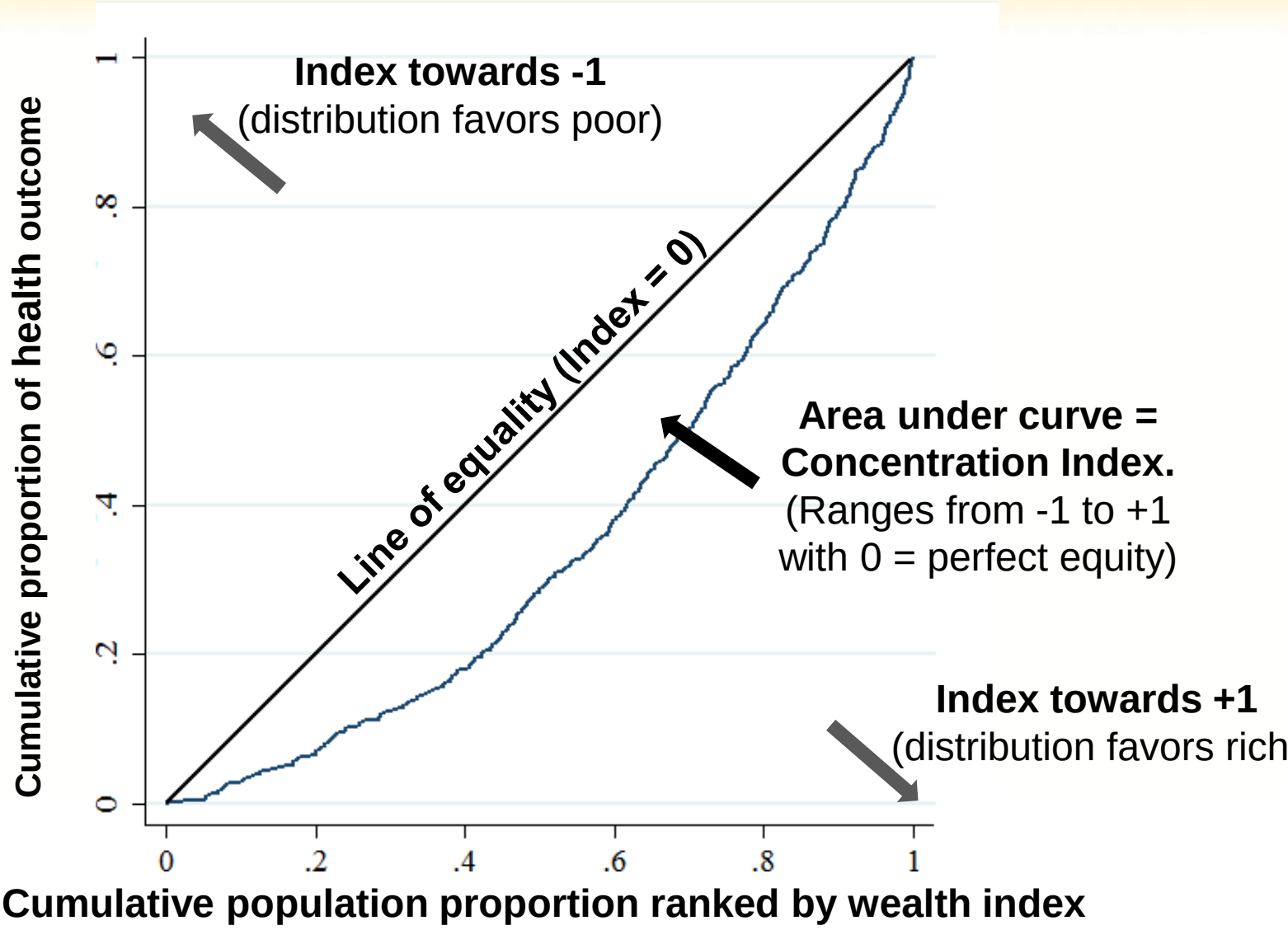
- We compared contraceptive prevalence rate (CPR) by quintile over time.
- We constructed concentration curves and indexes to test for changes in CPR equity.

Methods, ctd


Example health outcome for all rural Ethiopia and by wealth quintile
Health outcome
50%
40%
30%
20%
10%
0%
11
4
6
12
15
22
All rural Ethiopia
Most poor
2nd
Middle
4th
Least poor
Wealth index quintile

Methods, ctd

Concentration Curve and Index:

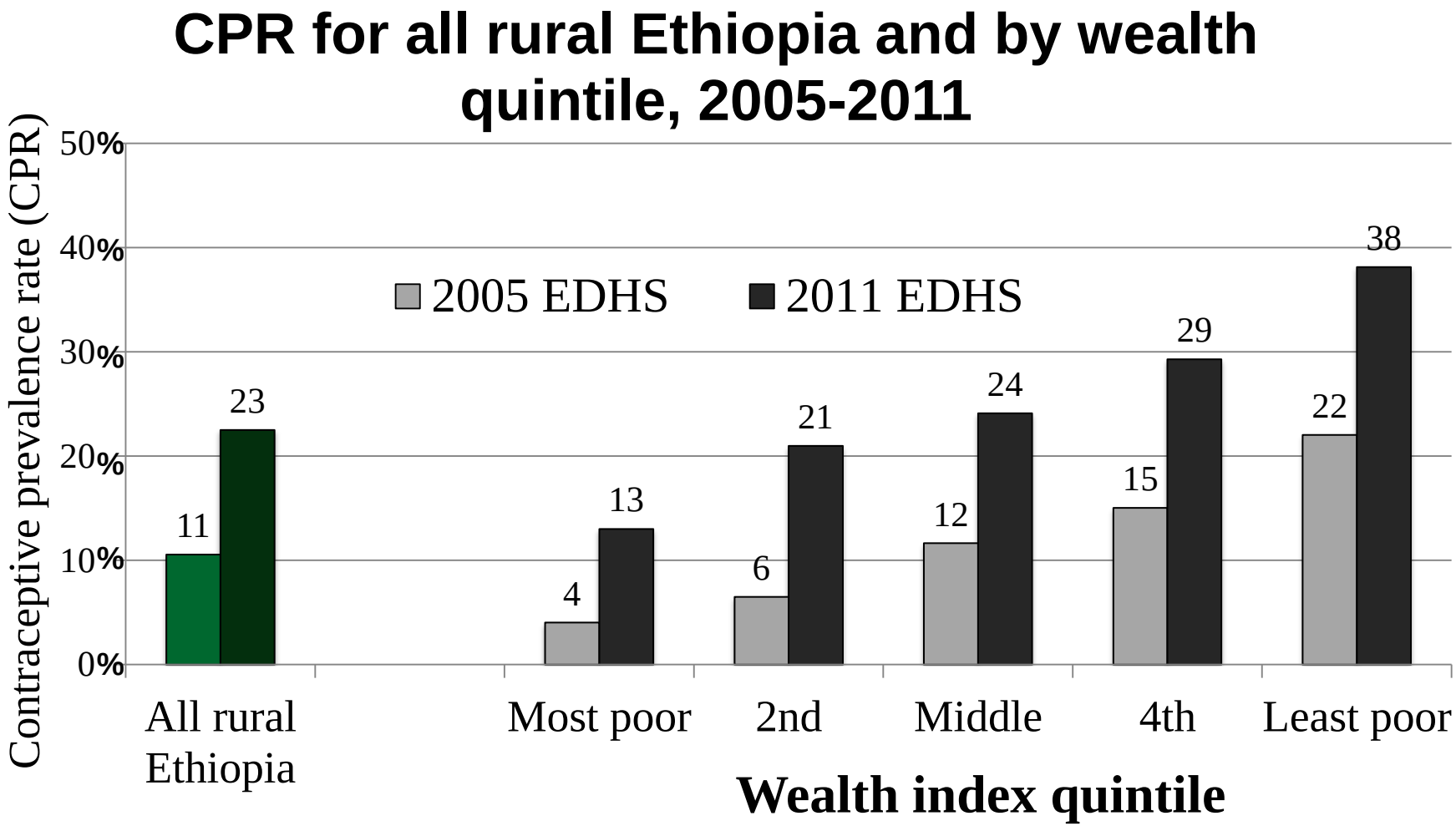


Results

Distribution of population by wealth quintile and urban/rural areas:

		Urban	Rural	Total
Quintile	First (lowest)	0.5%	24.2%	20.0%
	Second	0.3%	24.2%	20.0%
	Third (middle)	1.2%	24.1%	20.0%
	Fourth	6.3%	23.0%	20.0%
	Fifth (highest)	91.7%	4.5%	20.0%

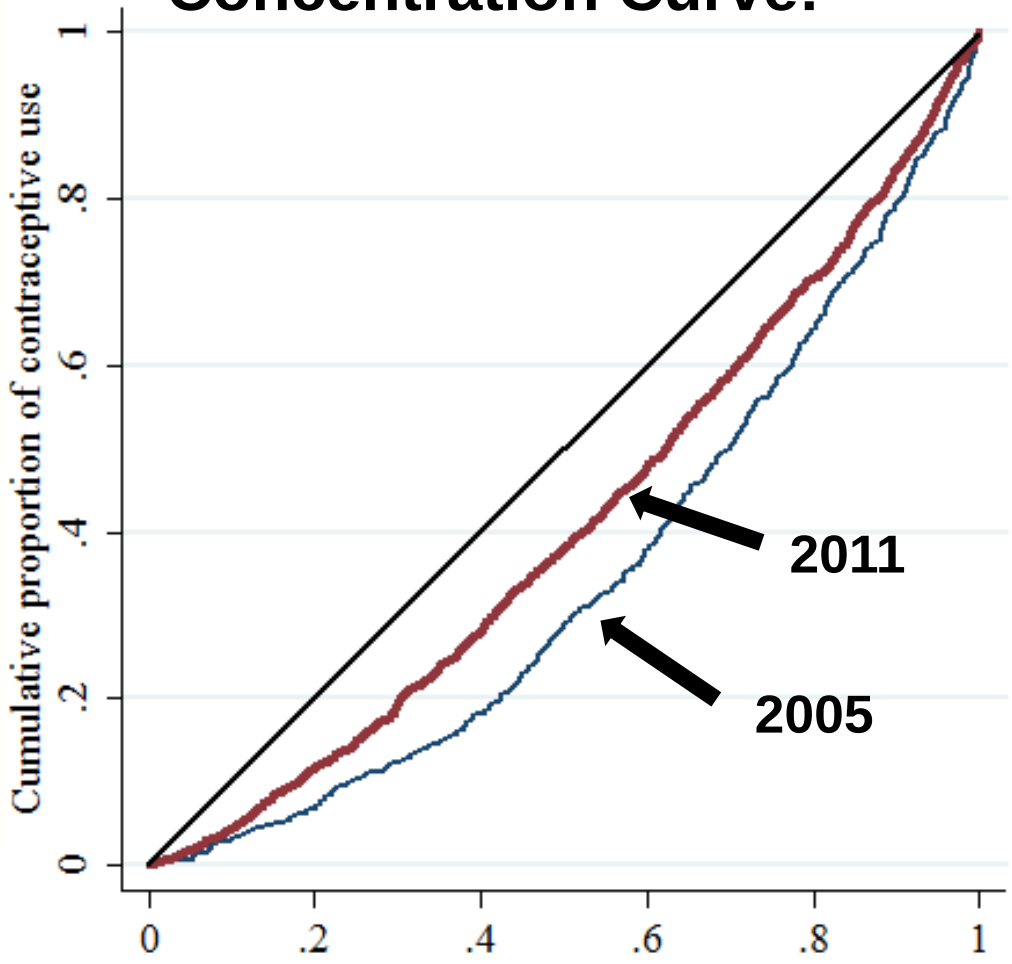
Results


CPR for all rural Ethiopia and by wealth quintile, 2005-2011
Contraceptive prevalence rate (CPR)
50%
40%
30%
20%
10%
0%
2005 EDHS
2011 EDHS
11
23
4
13
6
21
12
24
15
29
22
38
All rural Ethiopia
Most poor
2nd
Middle
4th
Least poor
Wealth index quintile

Results

CPR equity in rural Ethiopia, 2005-2011

Concentration Curve:



<u>Conc Index (95% CI):</u>

2005 = **0.21** (0.18, 0.25)

2011 = **0.12** (0.10, 0.15)

Improvement was statistically significant

Conclusions

- HEP plausibly improved CPR equity in Ethiopia, especially in rural areas
- While equity has improved, there are still inequities in CPR in 2011, so further work is needed.
- Policymakers should be aware of inequities in CPR by wealth and work to improve them.
- Equity should be monitored more frequently than once every 5 years with the EDHS.

Limitation

- Measures like the wealth index are useful for analyzing health equity, but are intangible for Health Extension Workers (how would they measure it?)
  - Useful at the policy level but not possible to monitor at the community level