



**POPULATION
COUNCIL**

Ideas. Evidence. Impact.

TRENDS IN CONTRACEPTIVE PREVALENCE IN SUB-SAHARAN AFRICA: THE ROLES OF FAMILY PLANNING PROGRAMS AND EDUCATION

John Bongaarts, Population Council

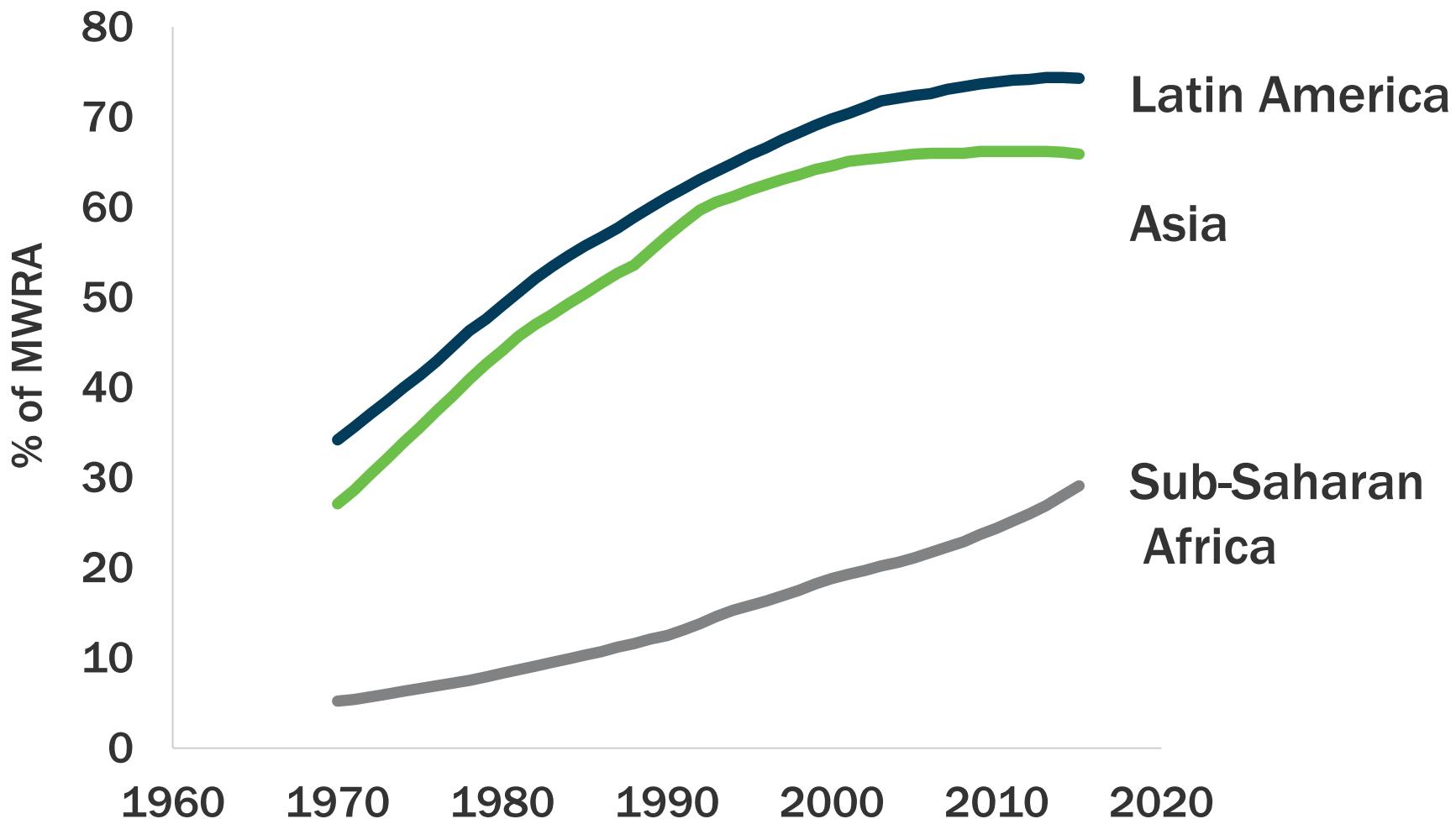
Karen Hardee, Hardee Associates

Outline

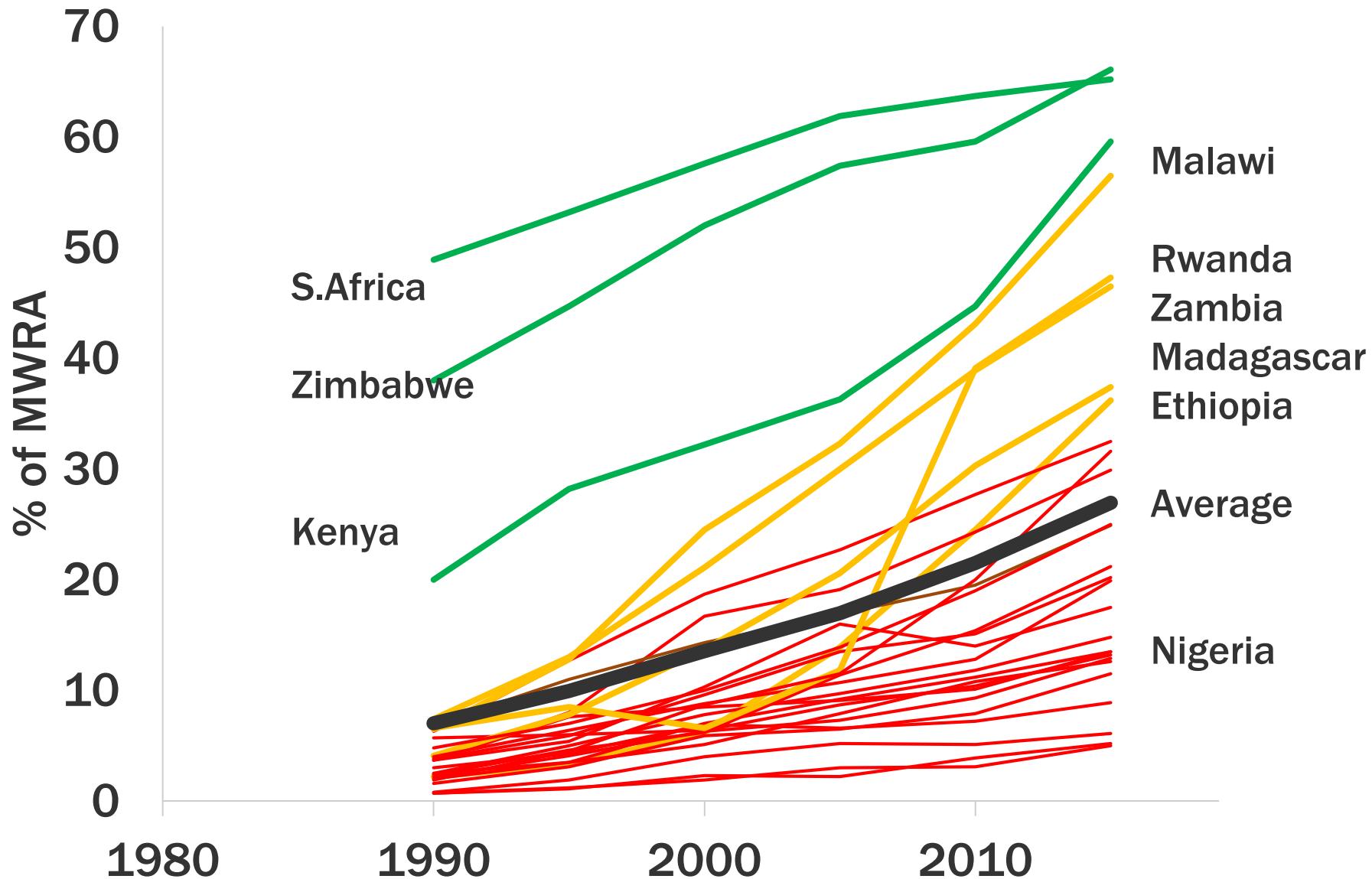
- 1) Trends in contraceptive prevalence**
- 2) Education vs. family planning programs**
- 3) Regression analyses**
- 4) Impact estimates**

1) Trends in contraceptive prevalence

Contraceptive prevalence trends

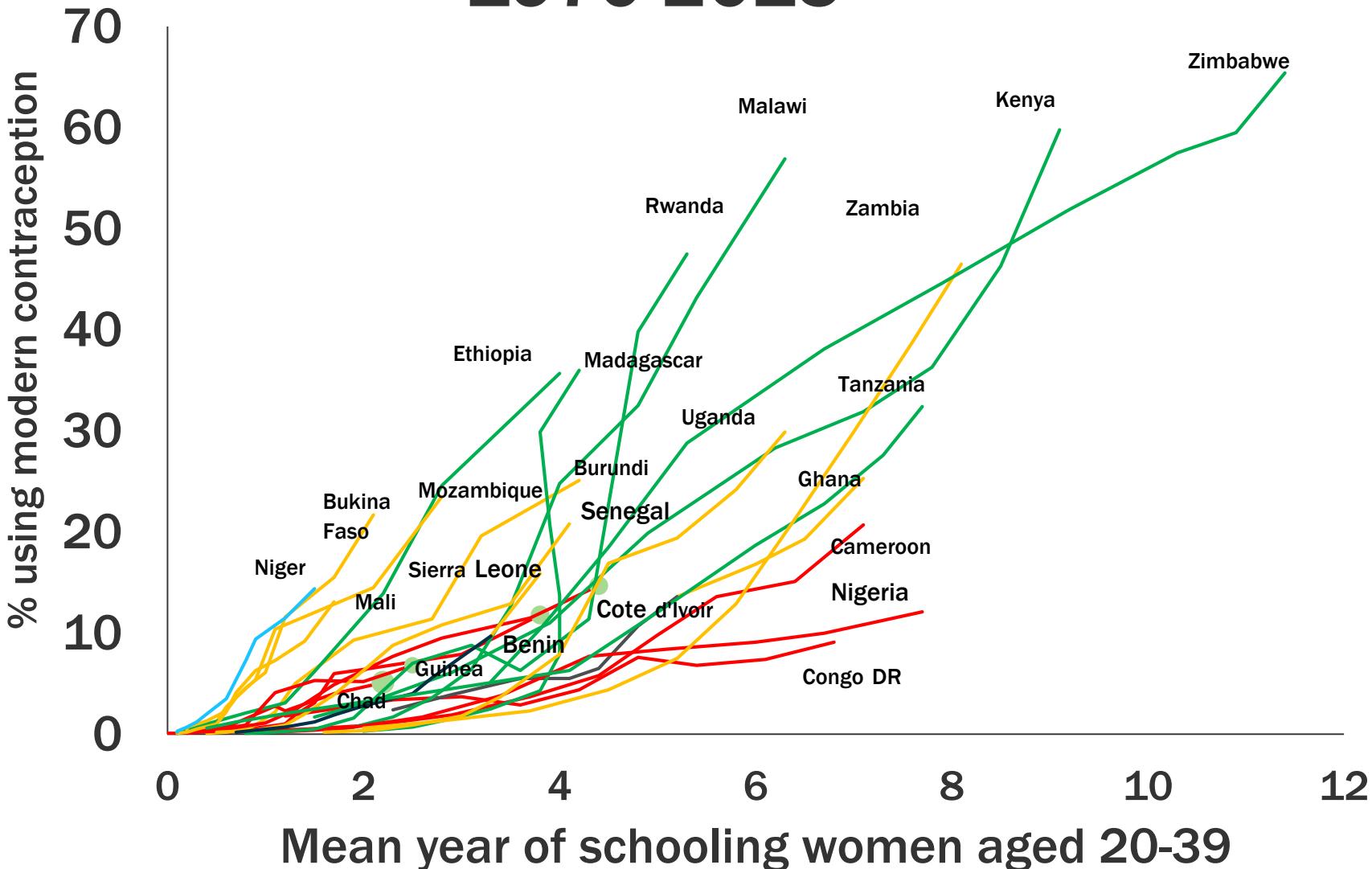


Contraceptive prevalence trends

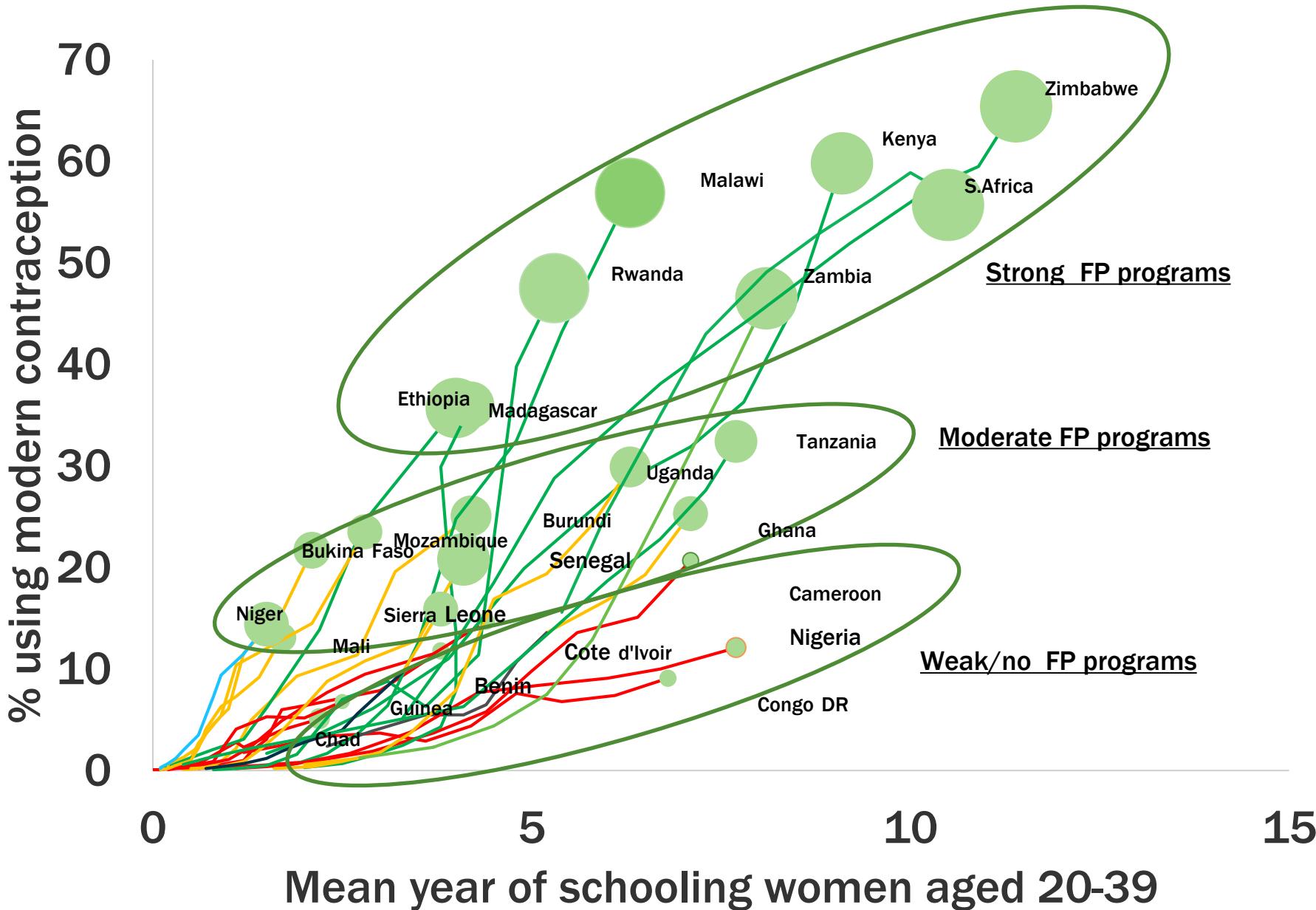


2) Education vs. family planning programs

Prevalence by education 1970-2015



Prevalence by education 1970-2015



3) Regression analyses

Explanatory variables

- GNI per capita (at PPP)
- Education, % women 20-39 with primary +
- Child mortality
- Percent urban
- Program score : from Bongaarts Hardee

Results of bivariate OLS regressions of prevalence on socioeconomic variables

	Coefficient	P
GNI/cap	8.29	0.63
Education	4.75	0.000
Child mortality	-0.47	0.000
Percent urban	-0.52	0.09
Program score	0.86	0.000

Results of multivariate OLS regression of prevalence on socioeconomic variables

	Coefficient	P
Education	2.72	0.000
Child mortality	-0.030	0.612
Program score	0.672	0.000
Constant	-5.988	0.466
N	24	
R²adj	0.921	

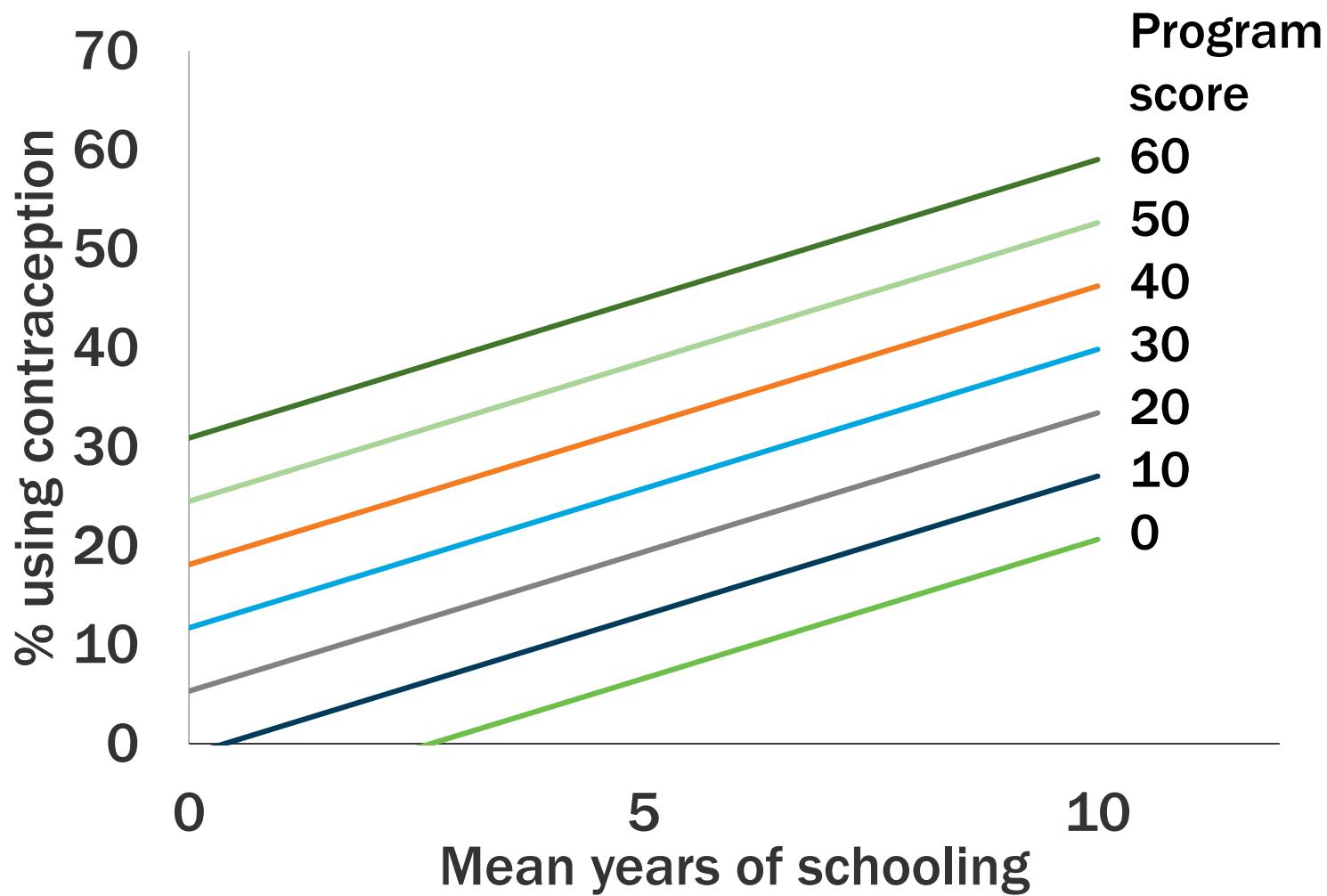
Results of fixed effect regression model of prevalence on socioeconomic variables

	Coefficient	P
Education	3.320	0.000
Child mortality	0.027	0.069
Program score	0.696	0.000
Constant	-14.17	0.001
N	98	
R²adj	0.892	

Results of fixed effect regression model of prevalence on socioeconomic variables

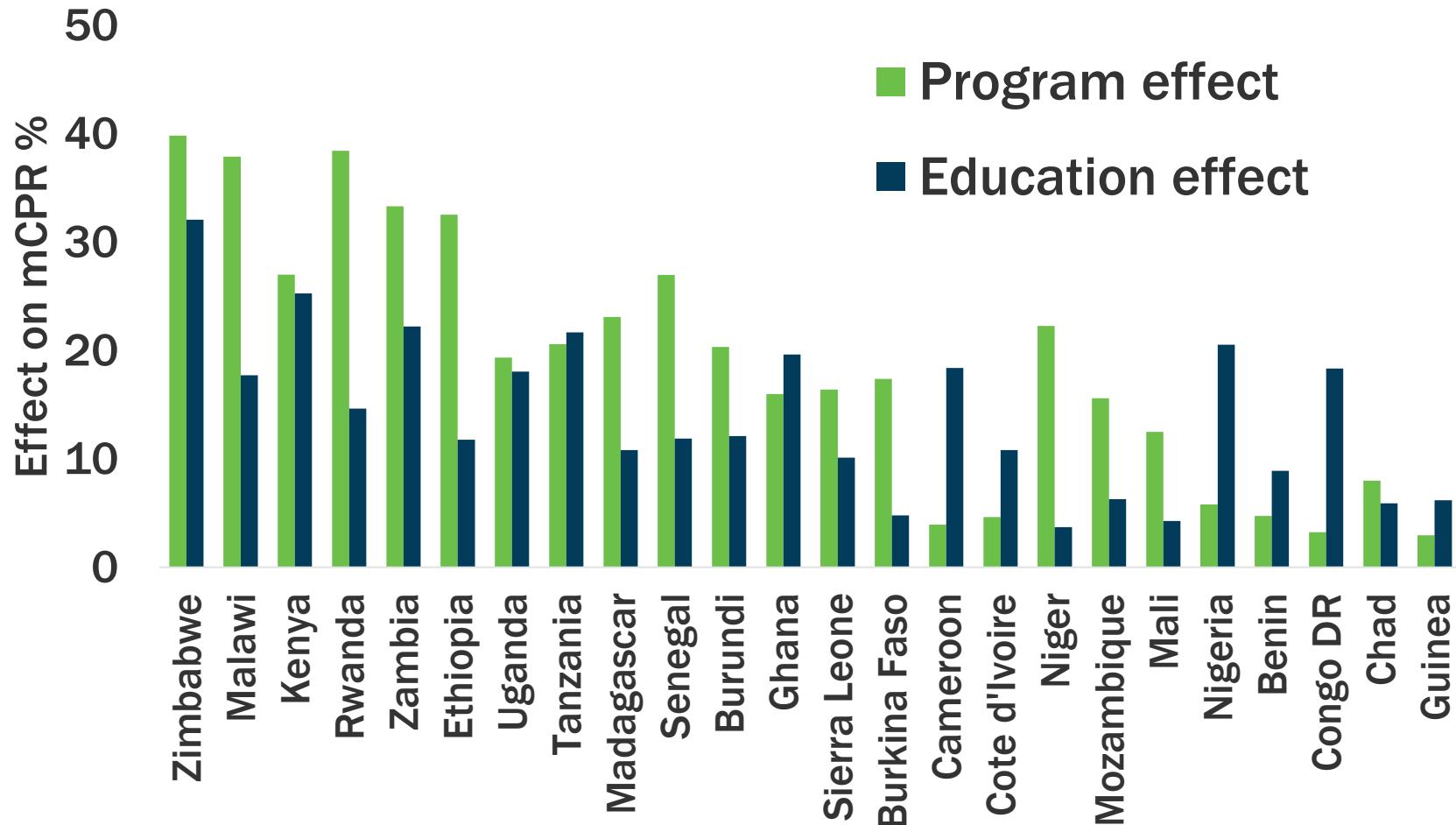
	Coefficient	P
Education	2.814	0.000
Program score	0.640	0.000
Constant	-7.460	0.000
N		98
R²adj		0.888

Model estimates of mCPR

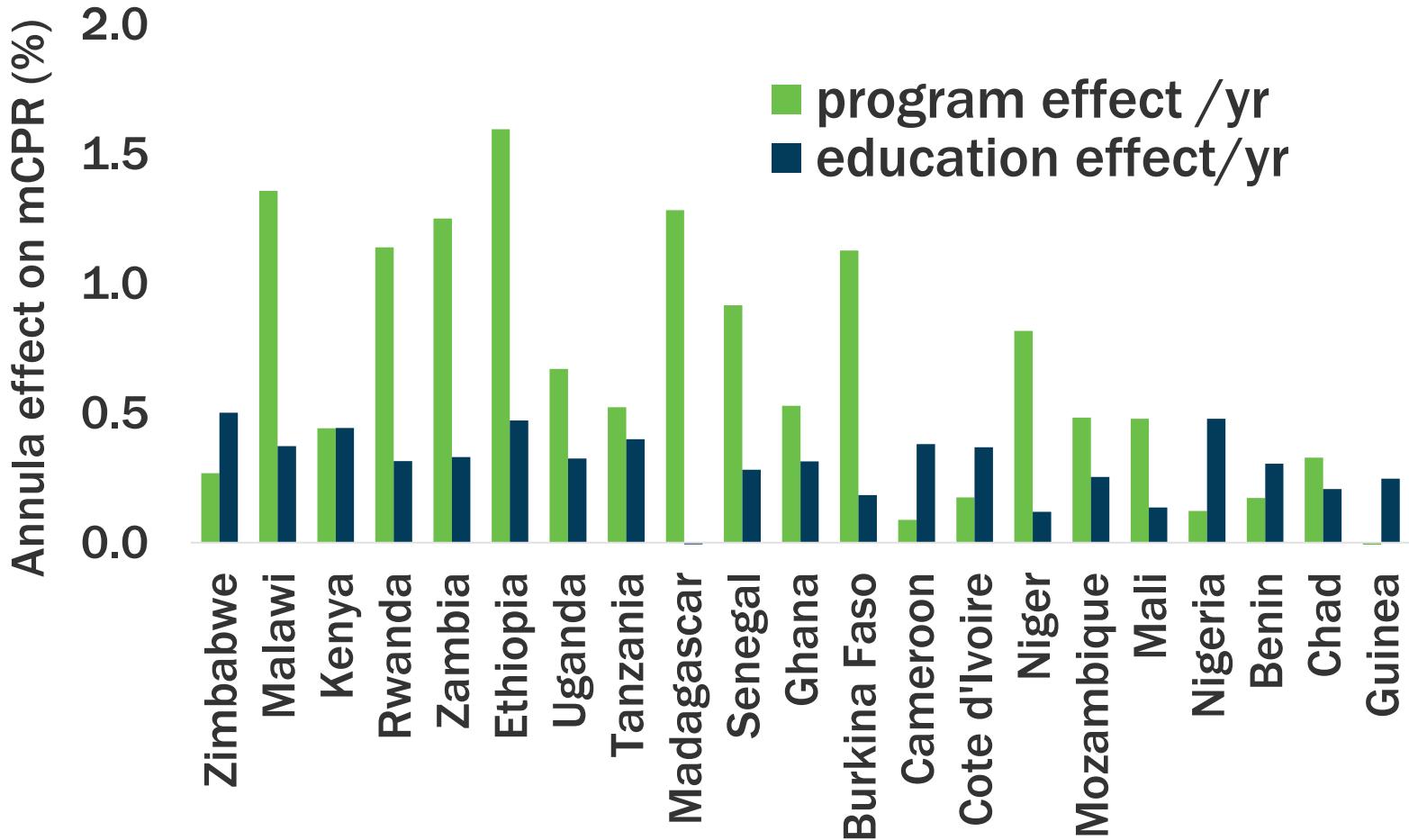


4) Impact estimates

Model estimates of education and program effects on mCPR



Annual change in education and program effects on mCPR



Conclusions

- Education and program score are the most important determinants of mCPR
- FP programs can increase mCPR at all levels of female education
- Program impacts above 30% in Zimbabwe, Malawi, Kenya, Rwanda, Zambia and Ethiopia
- Political commitment essential for FP success