

Reaping the Demographic Dividend: The Economic Impact of Meeting Unmet Need for Modern Contraception in Sub-Saharan Africa

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Washington DC: Communications Development Incorporated, 2014. p. 23-39.

Conflicts of Interest

- › None

Outline

- › Background
- › Methodology
- › Results
- › Discussion

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Background

What is the economic impact of meeting unmet need for contraception?

- › Unmet need for family planning – fraction of women in union with a man who do not want to have children in the near future, and are not using contraceptives
- › Family planning programs can reduce fertility if well-designed, culture-appropriate and well-implemented
- › Reducing fertility changes the age-structure of the population, resulting in a one-time “demographic dividend” driven by a bulge in the working-age population (net producers) and a decline in the relative size of younger people (net consumers)

Background

Who Has Reaped the Demographic Dividend?

- › As much as one-third of East Asia’s “economic miracle” can be accounted for by the demographic dividend.
- › Likewise, legalization of contraception in Ireland in 1980 resulted in a sharp decline in fertility. This demographic shift, coupled with a favorable policy environment, explains the birth of the Celtic Tiger.

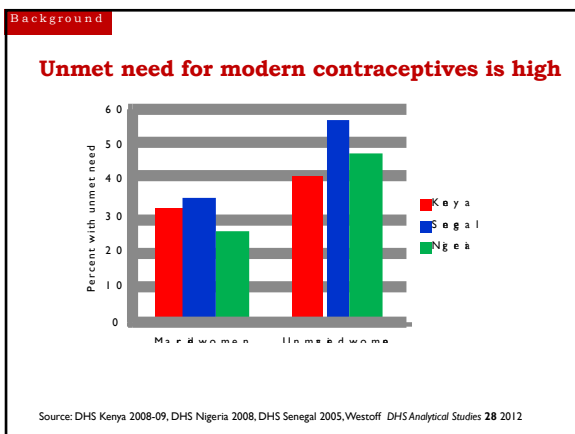
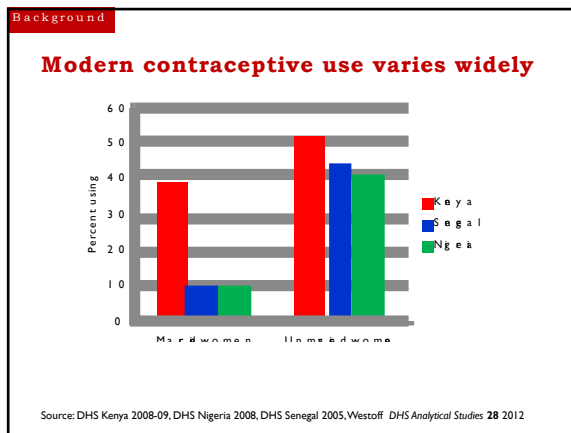
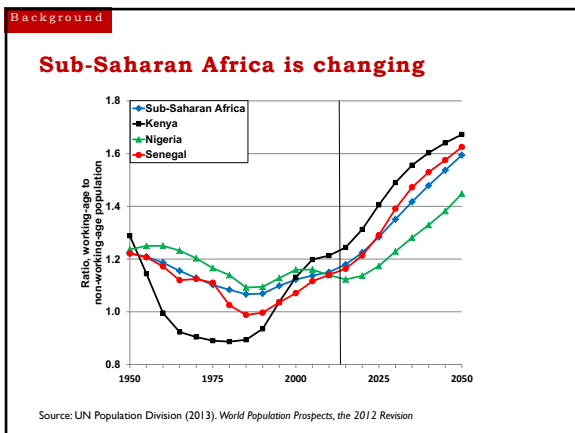
Bloom DE, Canning D, Malaney PN. *Popul Dev Rev* 2000; 26 Suppl:257-90
Bloom DE, Canning D. *Econ Soci Rev* 2003; 34:229-247

Background

Who Has Reaped the Demographic Dividend?

- › Demographic dividend of greater supply of labor is only a potential economic gain: this labor must be gainfully employed.
- › The policy environment must be favorable: good governmental institutions, labor legislation, macroeconomic management, education policy, openness to trade.
- › Contrast economic miracle in East Asia with economic stagnation in Latin America

Bloom DE, Canning D. *Popul Dev Rev* 2008; 34 Suppl: 17-51



- Methodology**
- ### From unmet need to economic growth
- Project the age structure assuming unmet need for modern contraceptives is met at 1/3rd, 2/3rd and full level
 - Estimate the historical demographic dividend (1965-2005) from cross-country growth regressions
 - Project the per capita income using the projected age structure and coefficients from the historical regressions

Methodology

Projecting age structure: data structure

Age group	Pop. m (2005)	Pop. f (2005)	Mort. m (2010)	Mort. f (2010)

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Status; Married, etc.	Using contra	Demanding contra	Using Pill	Using IUD	Using condoms	Using injections	... (cont'd)

Methodology

Projecting age structure: data snapshot

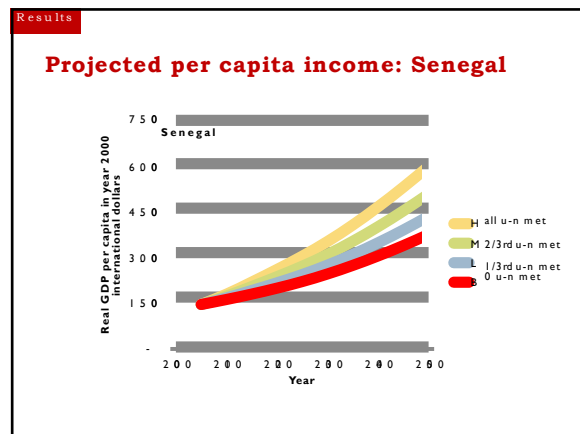
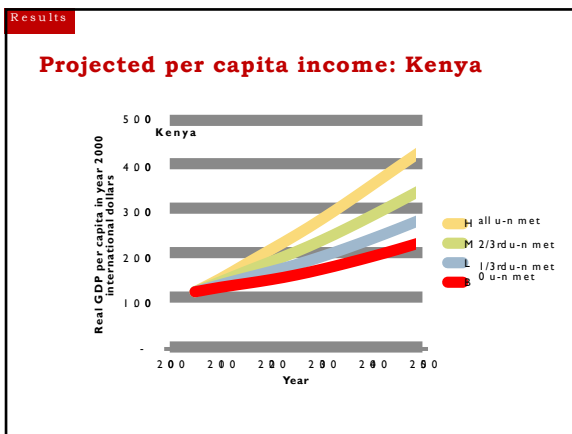
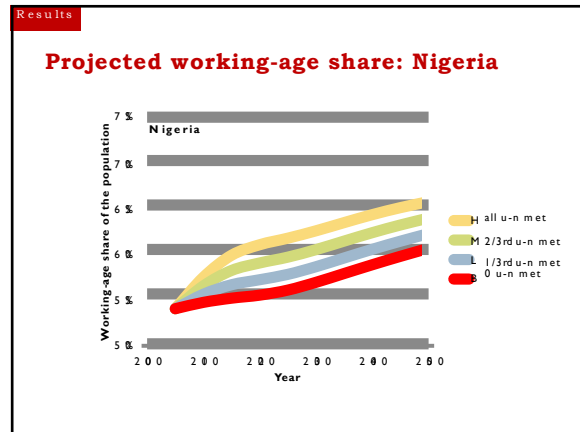
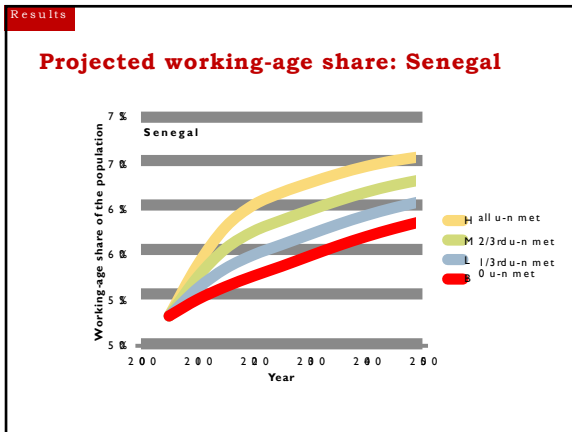
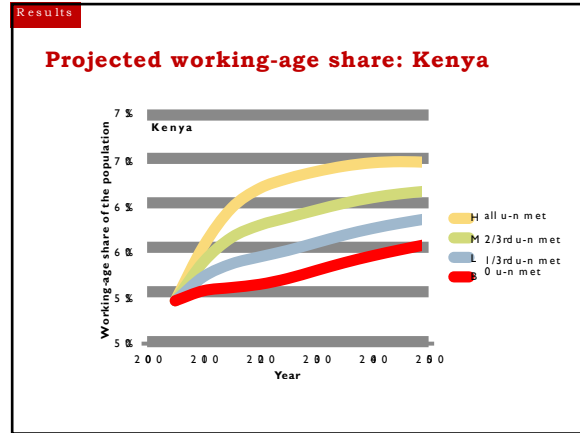
Age-group	Pop. m (2005)	Pop. f (2005)	Mort. m (2010)	Mort. f (2010)	Married	Living together	Unmet need	Using contra	Using Pill	Using IUD	Using condoms	Using injections	Using pills	Using injection	Using foam or jelly
10-14	2,182,778	2,204,165	0.003	0.003											
15-19	2,110,311	2,125,219	0.003	0.003	0.11001	0.3002305202302000300001400200000000000000									
20-24	1,843,342	1,851,196	0.003	0.004	0.5200403003606603603000600002102000000001001000										
25-29	1,480,907	1,498,968	0.006	0.006	0.710040270450720450410080010270020010000030010000										
30-34	1,107,031	1,158,686	0.009	0.008	0.730060220550770550490090010290020050000030010000										
35-39	838,036	864,568	0.013	0.01	0.73006025051076051041007004019002006000002000000										
40-44	692,909	667,552	0.016	0.014	0.660060250530770530470090030170010140000020010000										
45-49	588,493	534,892	0.014	0.016	0.66005021040062040032005020090020140000010000000										
50-54	487,791	433,155	0.012	0.017											

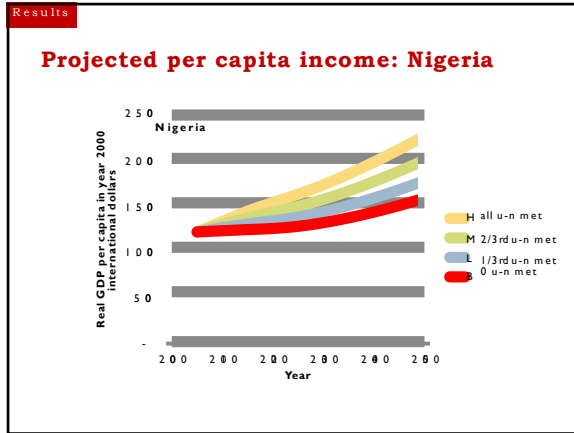
Methodology

Projecting economic growth

- Assembled panel data for 1965-2005 from
 - World Development Indicators, Penn World Tables, Barro and Lee, Freedom House
- Estimated cross-country growth models using demographic and other variables
 - Geographical (tropical location, landlockedness)
 - Human development (education, health)
 - Institutional quality (ICRG, SVV, Trade openness)

Source for demographic dividend regressions: Bloom DE, Finlay J, Humair S, Mason A, Olaniyan O, Soyibo A. Prospects for economic growth in Nigeria: a demographic perspective. Demographic Research (under revision)





Results

Difference in present value of income

- Difference in present value of the income per capita between the H (all u-n met) and L (33% u-n met) scenarios at 3% discounting

Country	2030	2050
Kenya	5,800	14,000
Nigeria	2,400	5,200
Senegal	5,300	13,600

Discussion

Summary of results for discussion

Increase in per capita income over baseline		
	Meet 1/3rd unmet need	Meet all unmet need
2030	8-13%	13-22%
2050	31-65%	47-87%

Difference in present value between meeting 1/3rd unmet need and meeting all unmet need (3% discounting)	
2030	\$2,400-\$5,800
2050	\$5,300-\$14,100