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Africa's slow fertility transition

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Africa's slow fertility transition

John Bongaarts

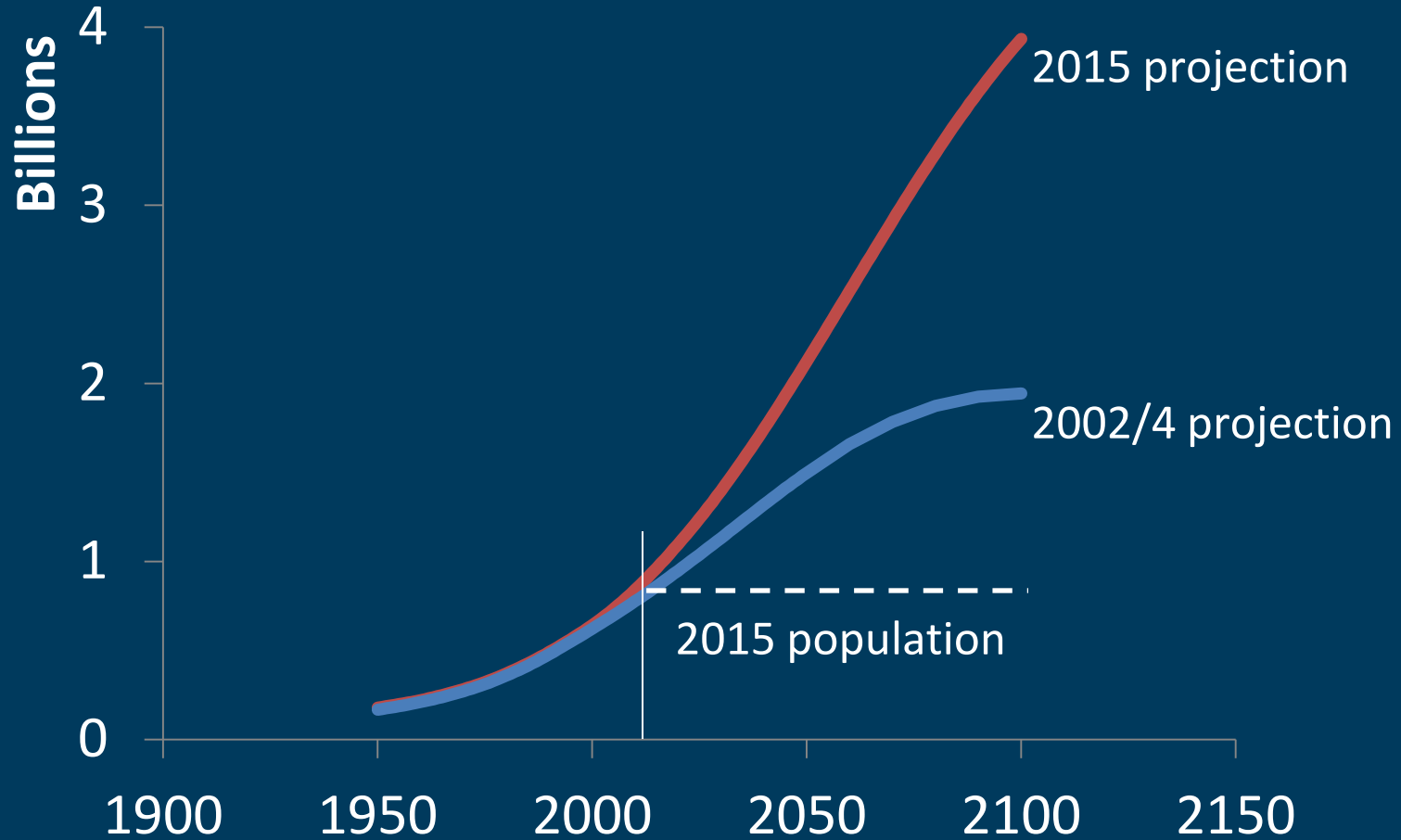
Population Council, New York

Süssmilch Lecture

Max Planck Institute, Rostock

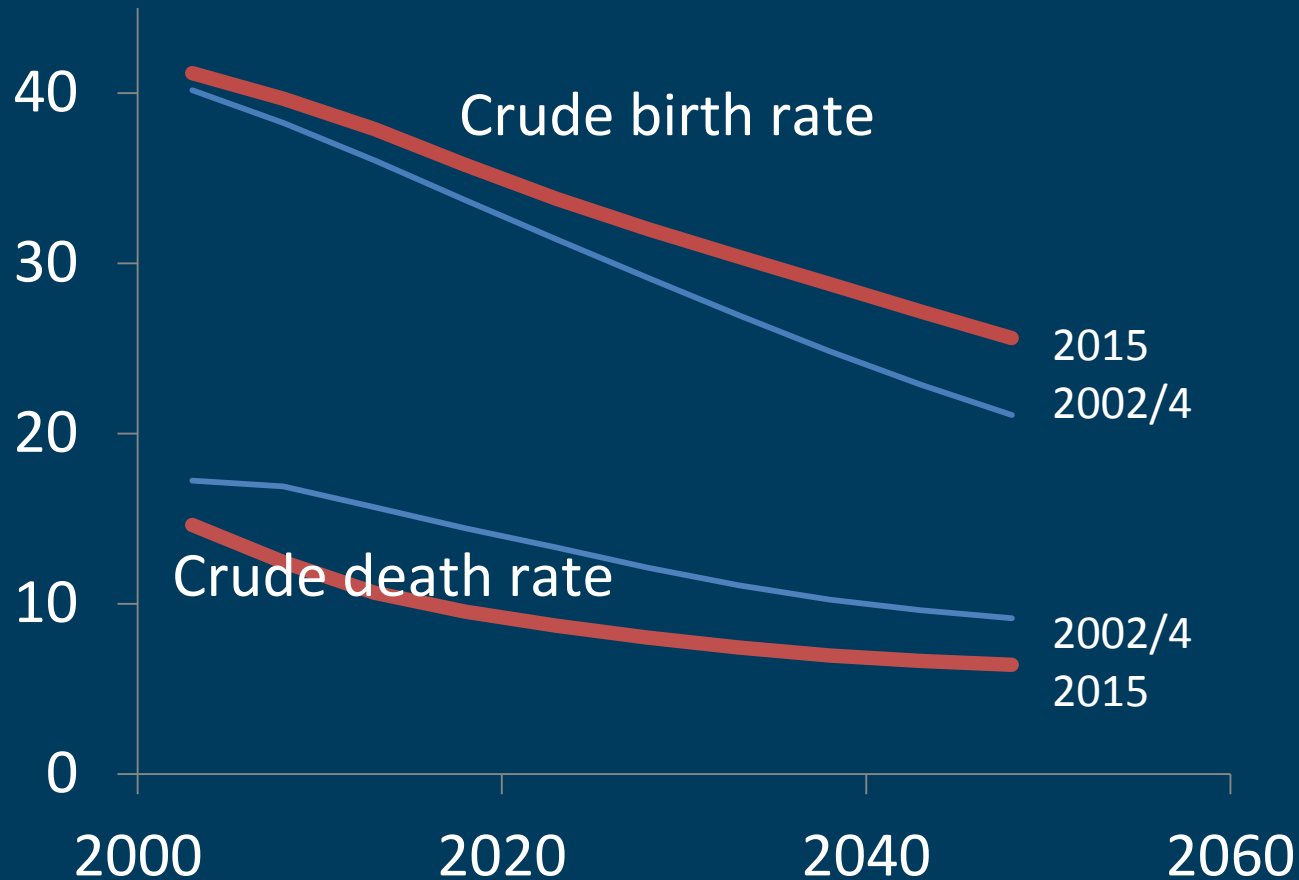
3 Sep 2015

Population projections for sub-Saharan Africa



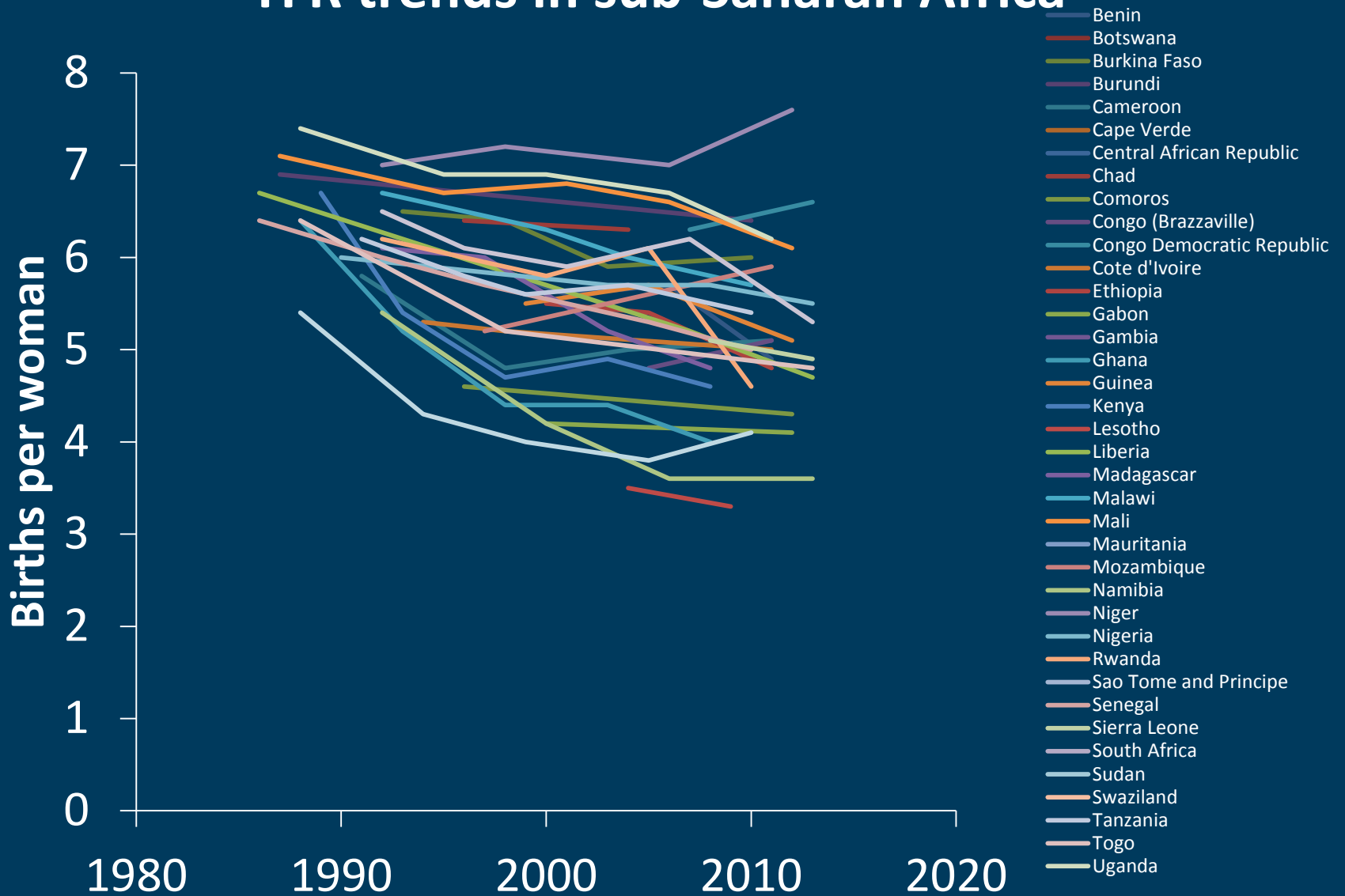
Source, United Nations

Crude birth and death rates sub-Saharan Africa



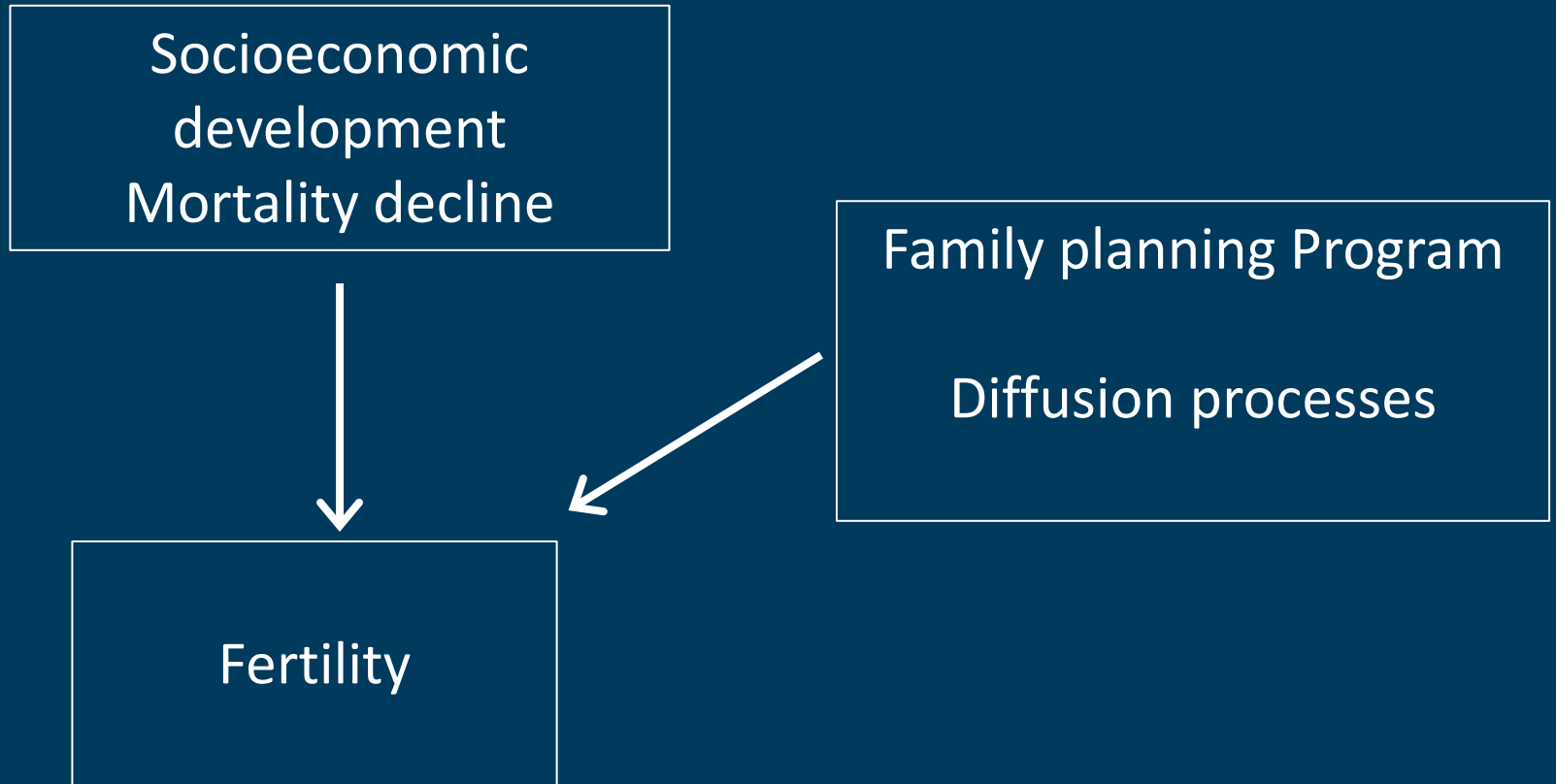
Source: United Nations

TFR trends in sub-Saharan Africa



Source: DHS

Determinants of fertility



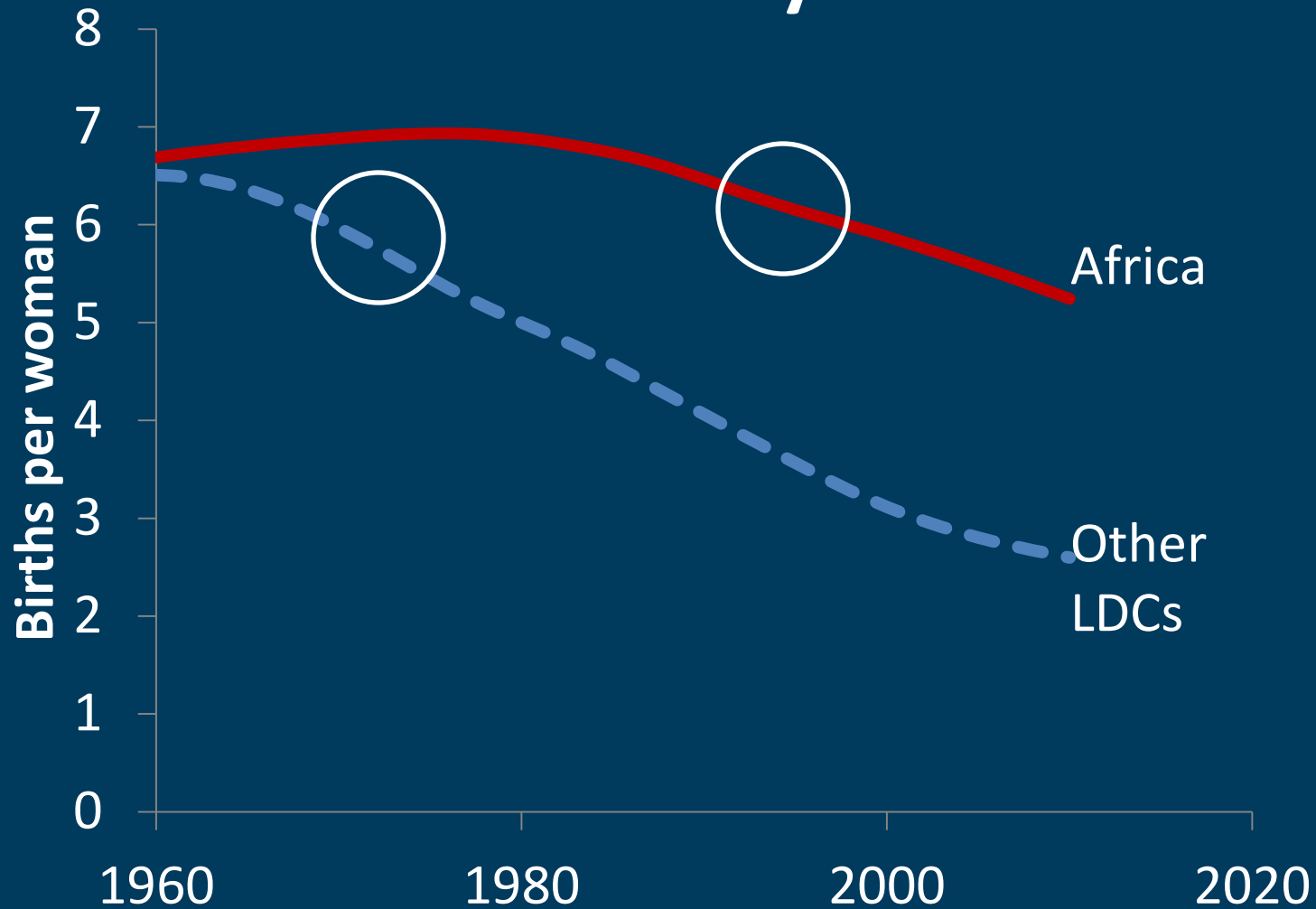
Hypotheses

1. Africa's development is slow
2. Africa is exceptional
3. Family planning programs are lacking

Outline

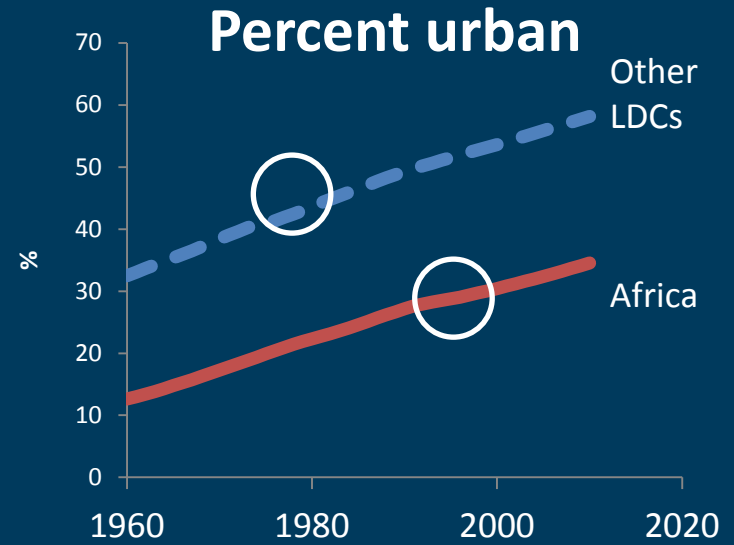
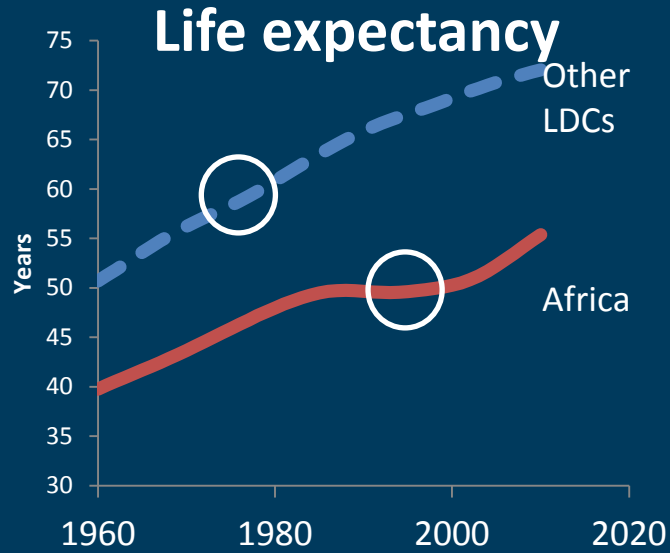
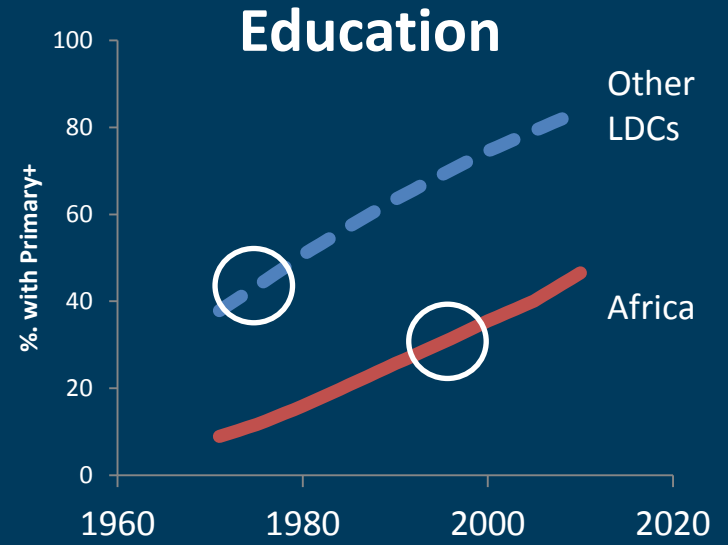
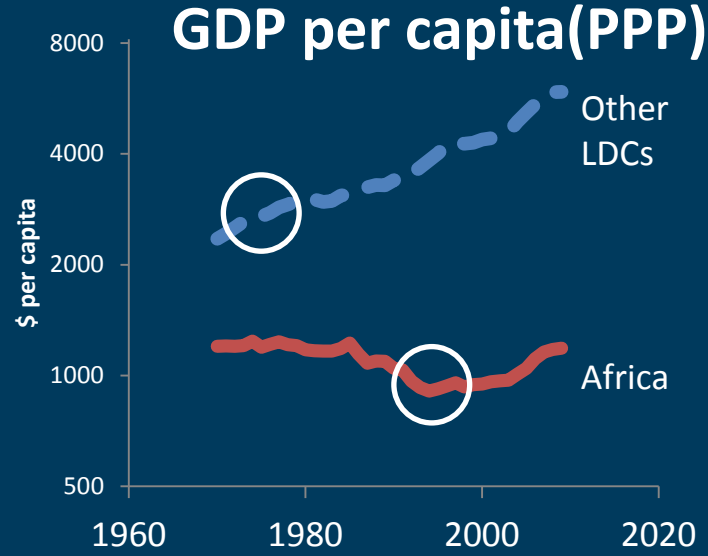
1. Fertility and development trends
 - Levels
 - Pace
2. African exceptionalism
3. Impact of family planning programs
4. Conclusions

Total fertility rate



Development indicators 1970-2010

- GDP per capita (at PPP) from the PWT
- Education, % with primary + (Wittgenstein)
- Life expectancy at birth (UN 2013)
- Percent urban (UN 2014).



**Average at the time of
transition onset**

	Sub-Saharan Africa	Other LDCs
TFR decline %	10	10
Year of transition onset	1994	1975
GDP/cap(log)	6.9	7.7
Education (% primary+)	29	42
Life expectancy	51	59
Percent urban	29	40

Conclusions

1) African transitions later in time

→ Consistent with conventional theory

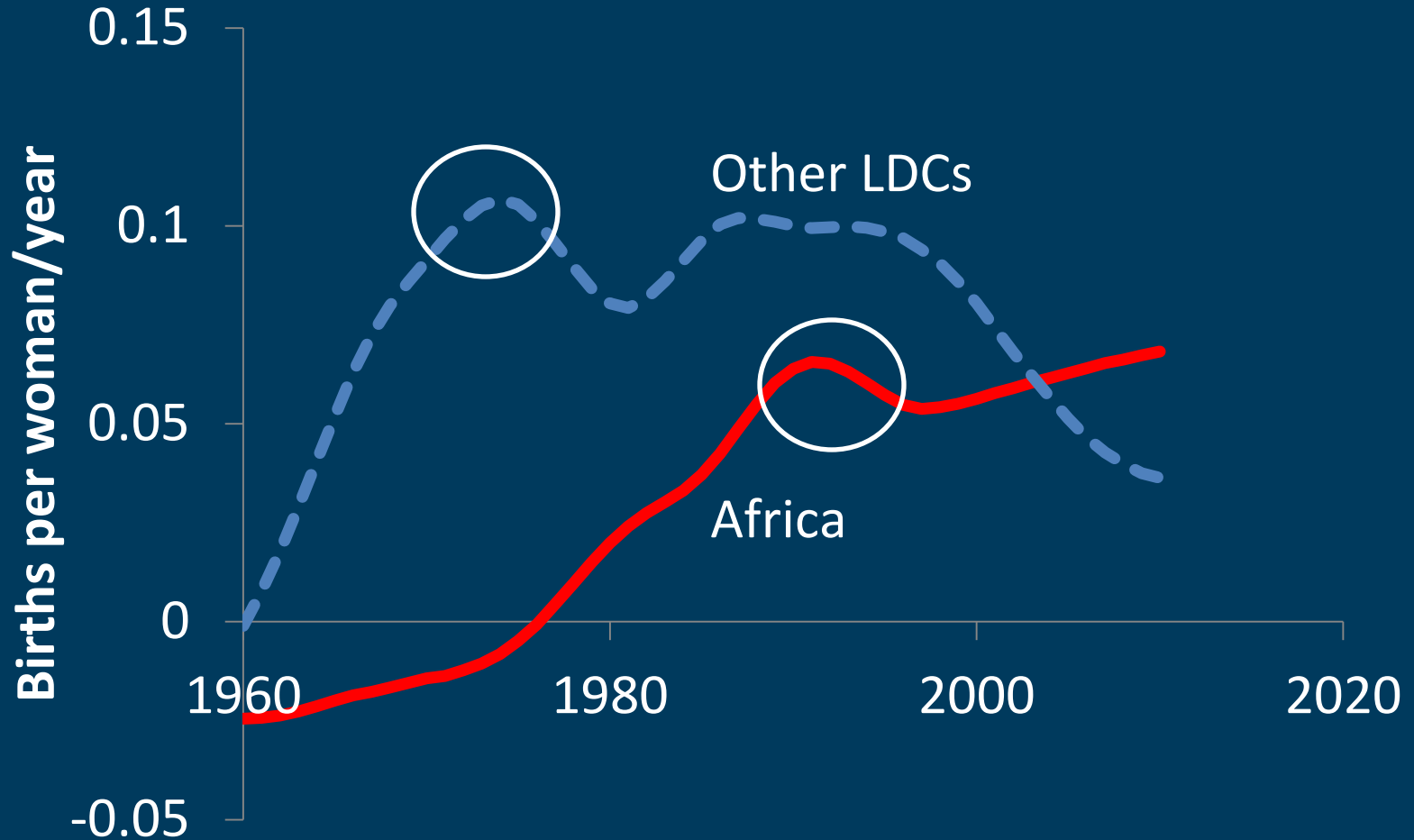
2) But early relative to level of development

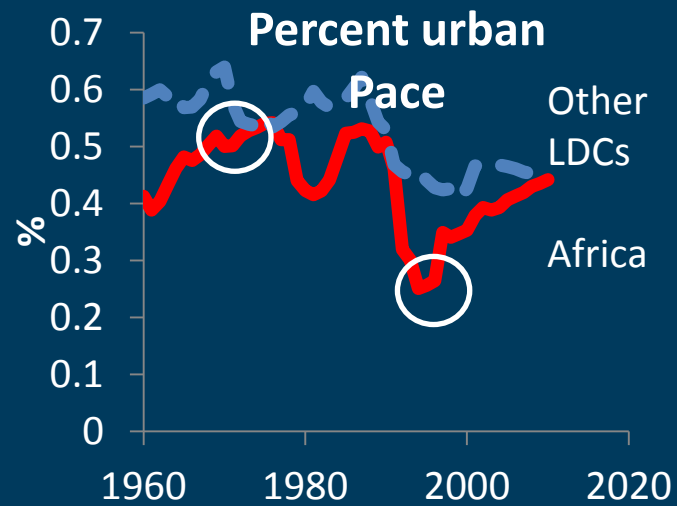
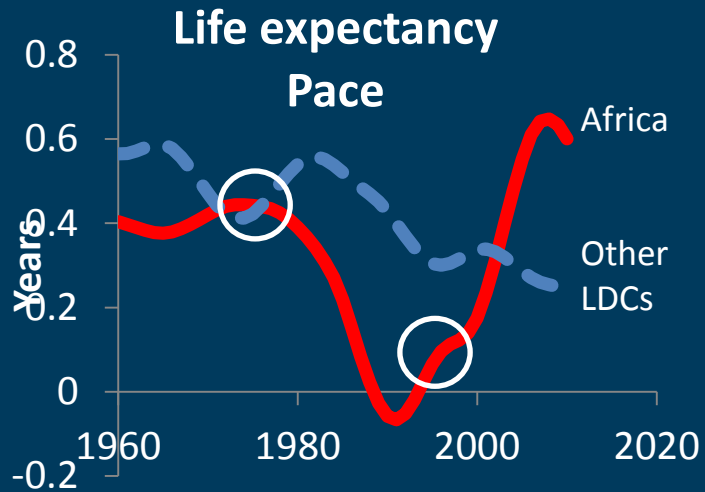
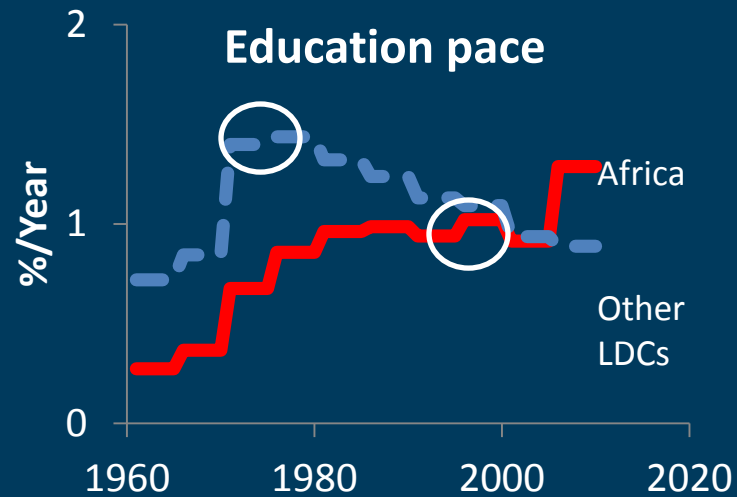
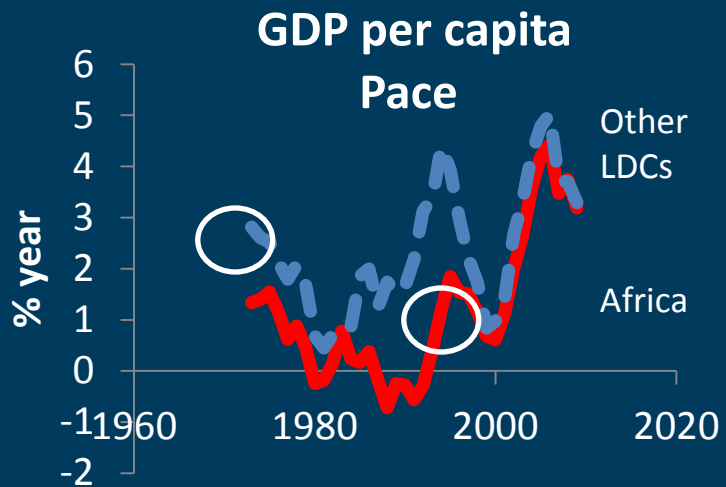
→ Consistent with diffusion theories

Outline

1. Fertility and development trends
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Total fertility rate, pace





	Average pace at the time of transition onset	
	Sub-Saharan Africa	Other LDCs
TFR	0.09	0.15
Year	1994	1975
GDP/cap(log)	0.008	0.034
Education (% primary+)	1.2	2.0
Life expectancy	0.12	0.47
Percent urban	0.29	0.57

Conclusions

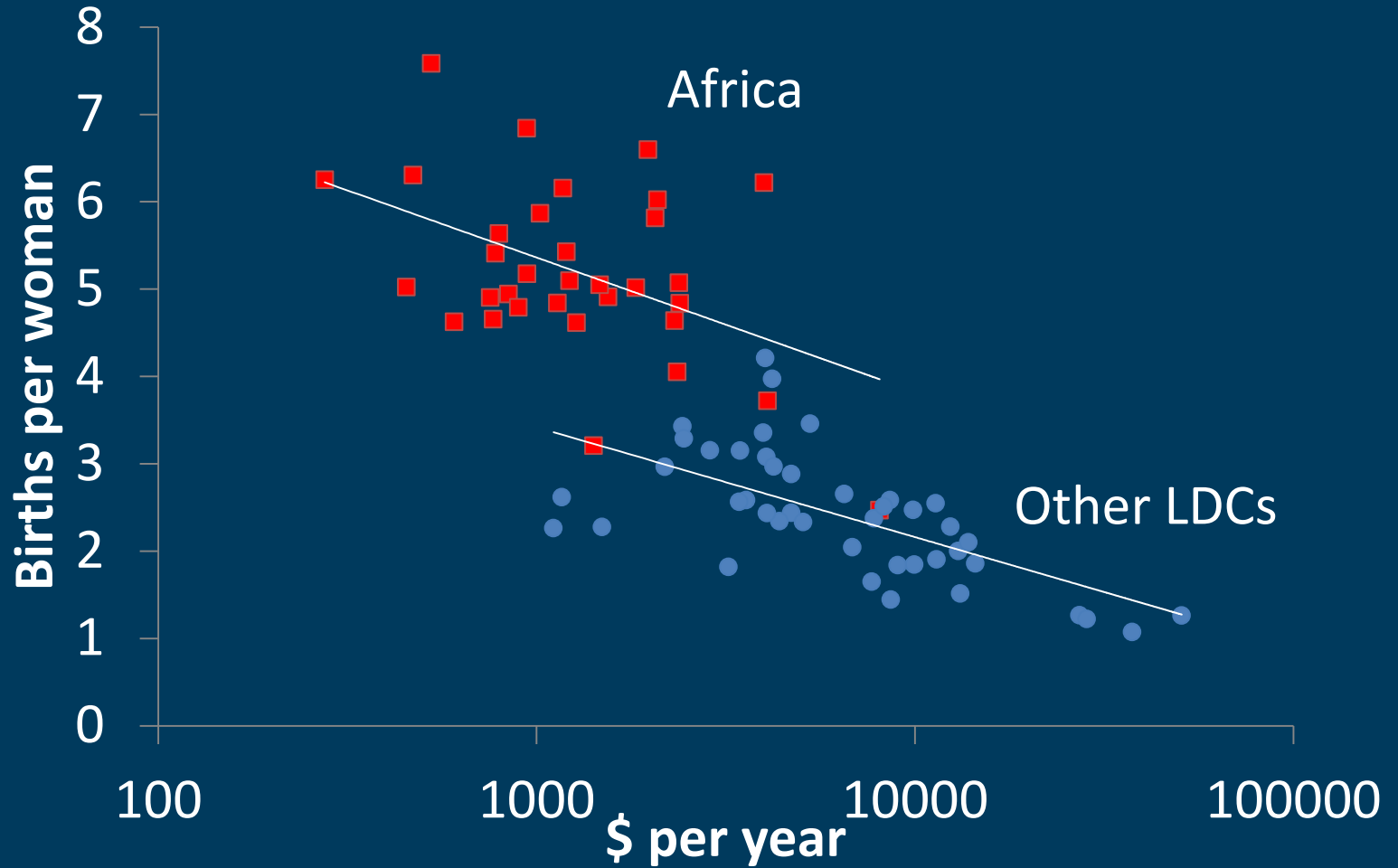
3) African transitions are slow because the pace of development is slow

 Consistent with conventional theory

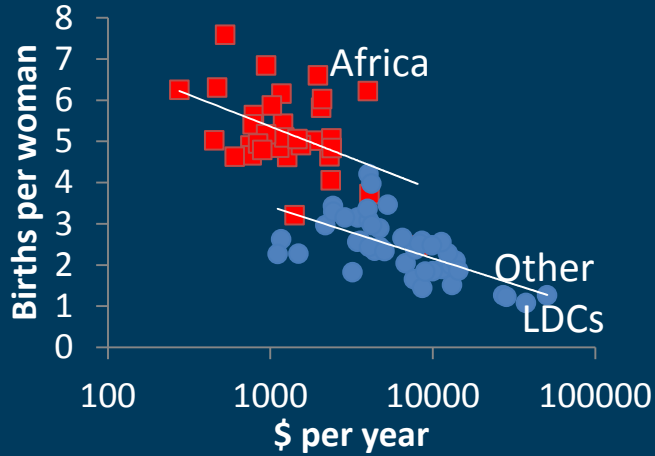
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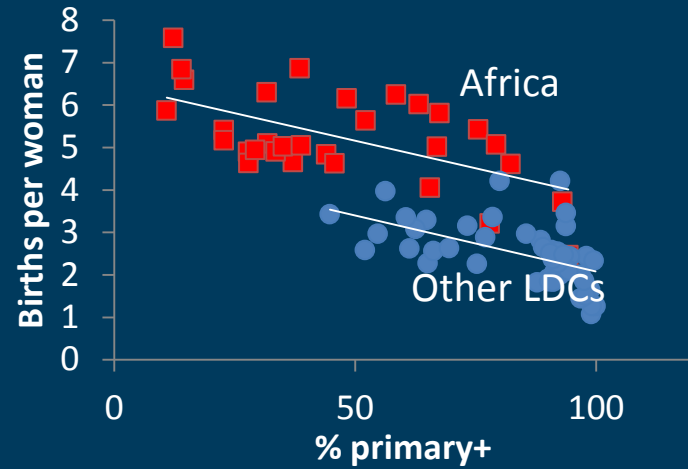
TFR by GDP/capita, 2010



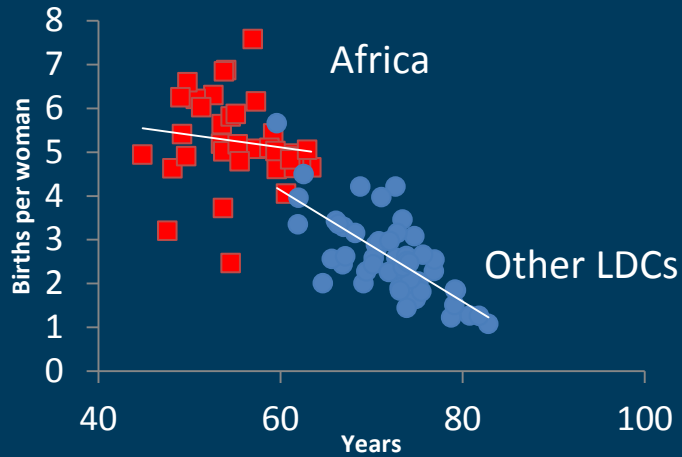
TFR by GDP/capita, 2010



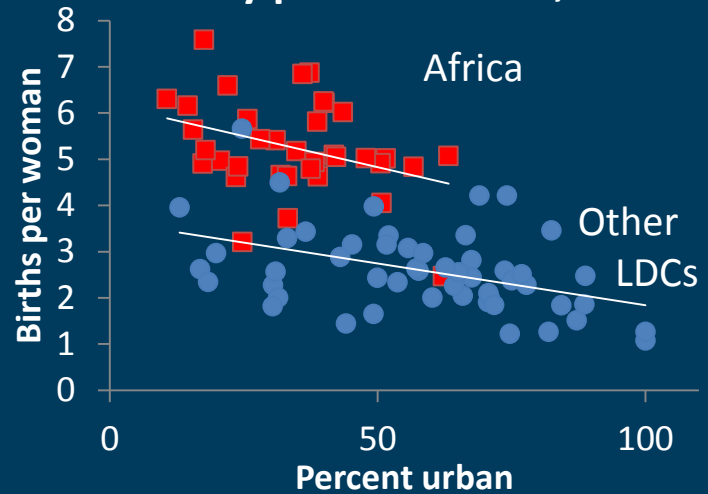
TFR by education, 2010



TFR by life expectancy, 2010



TFR by percent urban, 2010



	TFR
	2010
Africa effect	1.18**
GDP/cap	-0.36*
Education	-0.019***
Life expectancy	-0.02
Percent urban	0.00
R²	0.84
N	71
Year	2010

Socioeconomic dev.
Mortality decline



Cost and benefits of
children



Fertility preferences



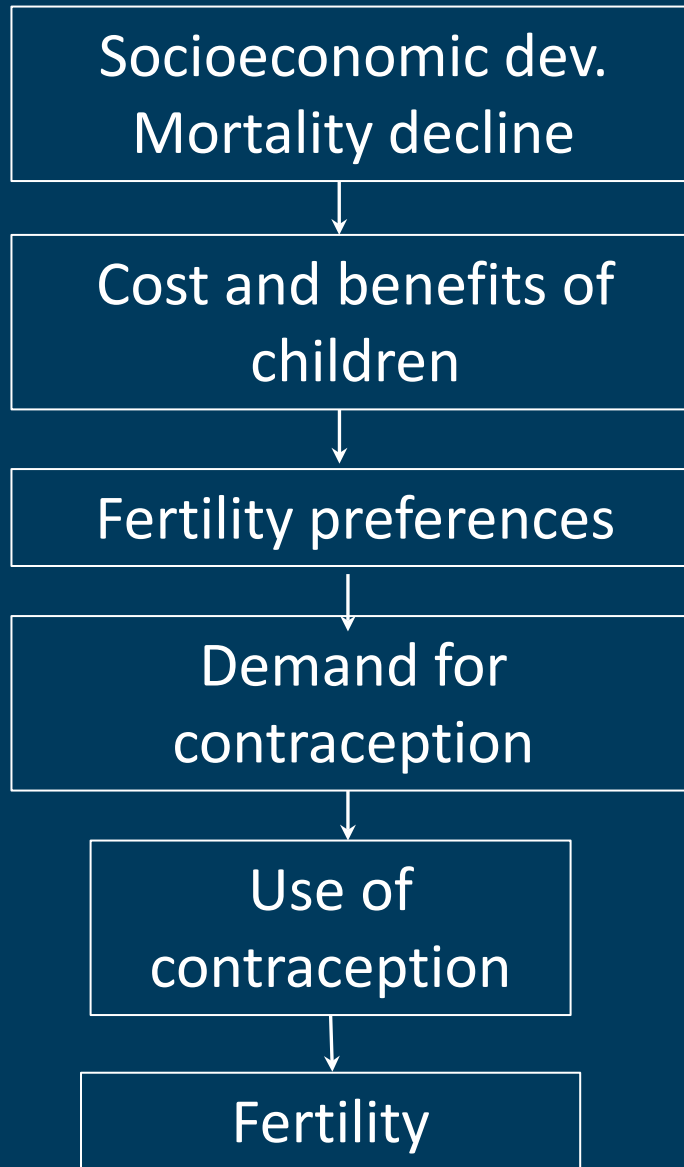
Demand for
contraception



Use of
contraception



Fertility



	TFR	Contraceptive prevalence	Desired Family size
Africa effect	1.18**	-10.9*	1.24*
GDP/cap (log)	-0.36*	0.83	0.3
Education	-0.019***	0.51***	-2.7***
Life expectancy	-0.02	0.65	-0.04
Percent urban	0.00	-0.15	0.01
R ²	0.84	0.86	0.72
N	71	71	39
Year	2010	2010	Latest DHS

Conclusions:

African fertility is high relative to development

→ Consistent with theories about African exceptionalism (e.g. Caldwell)

Caldwell (1992) :

”(1) African traditional society stressed the importance of ancestry and descent. ...younger generations assisted the older generations .. for males at least, high fertility ultimately brought substantial economic returns...

(2) Polygyny led in West and Middle Africa to separate spousal budgets. The father was spared much of the cost of rearing children.

(3) There was strength and safety in numbers. Communal land tenure meant that large families could demand a greater share of the land...

(4) Family planning programs were nonexistent or weak ..regarded as foreign or as incompatible with African culture

Outline

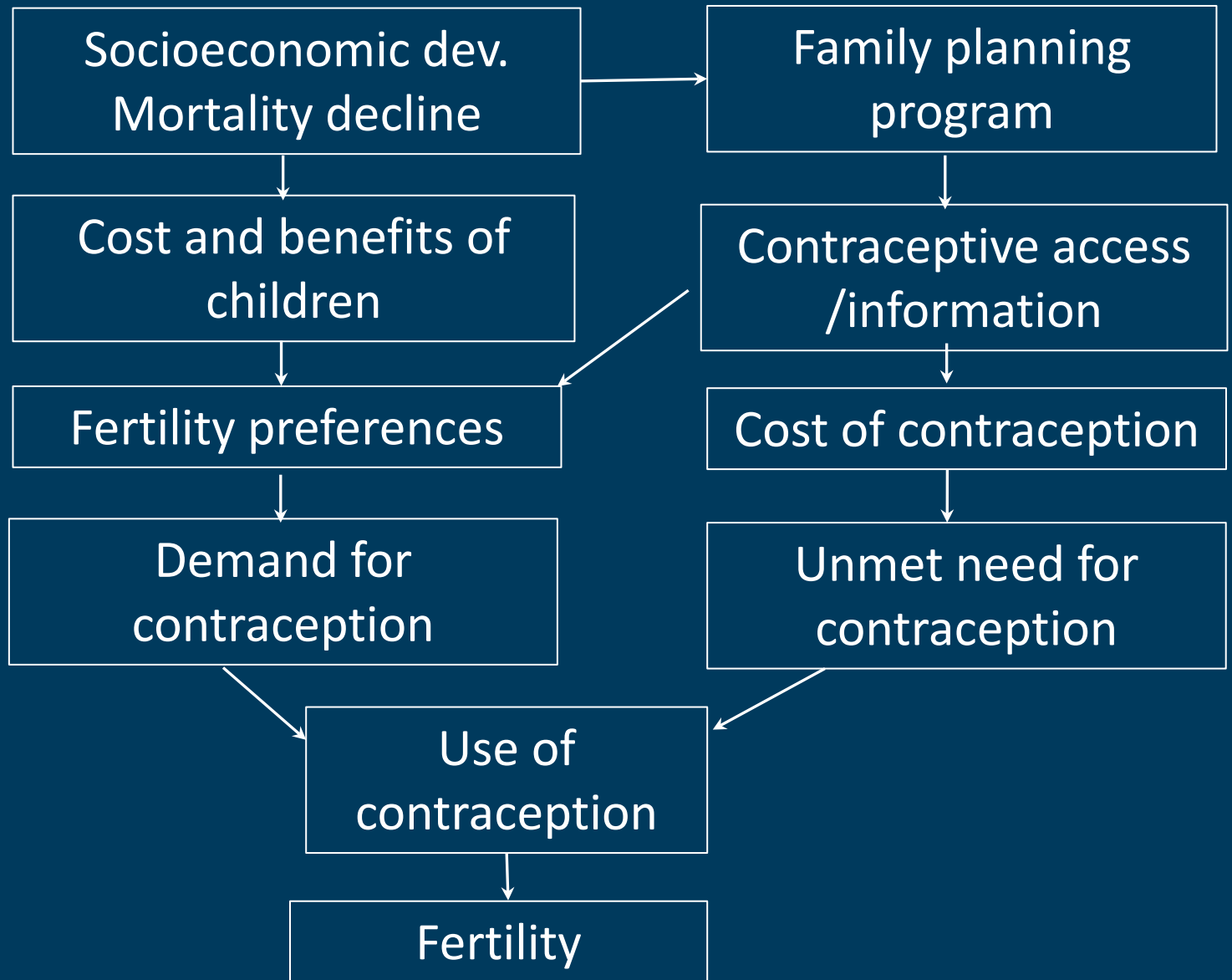
1. Fertility and development trends

- Levels
- Pace

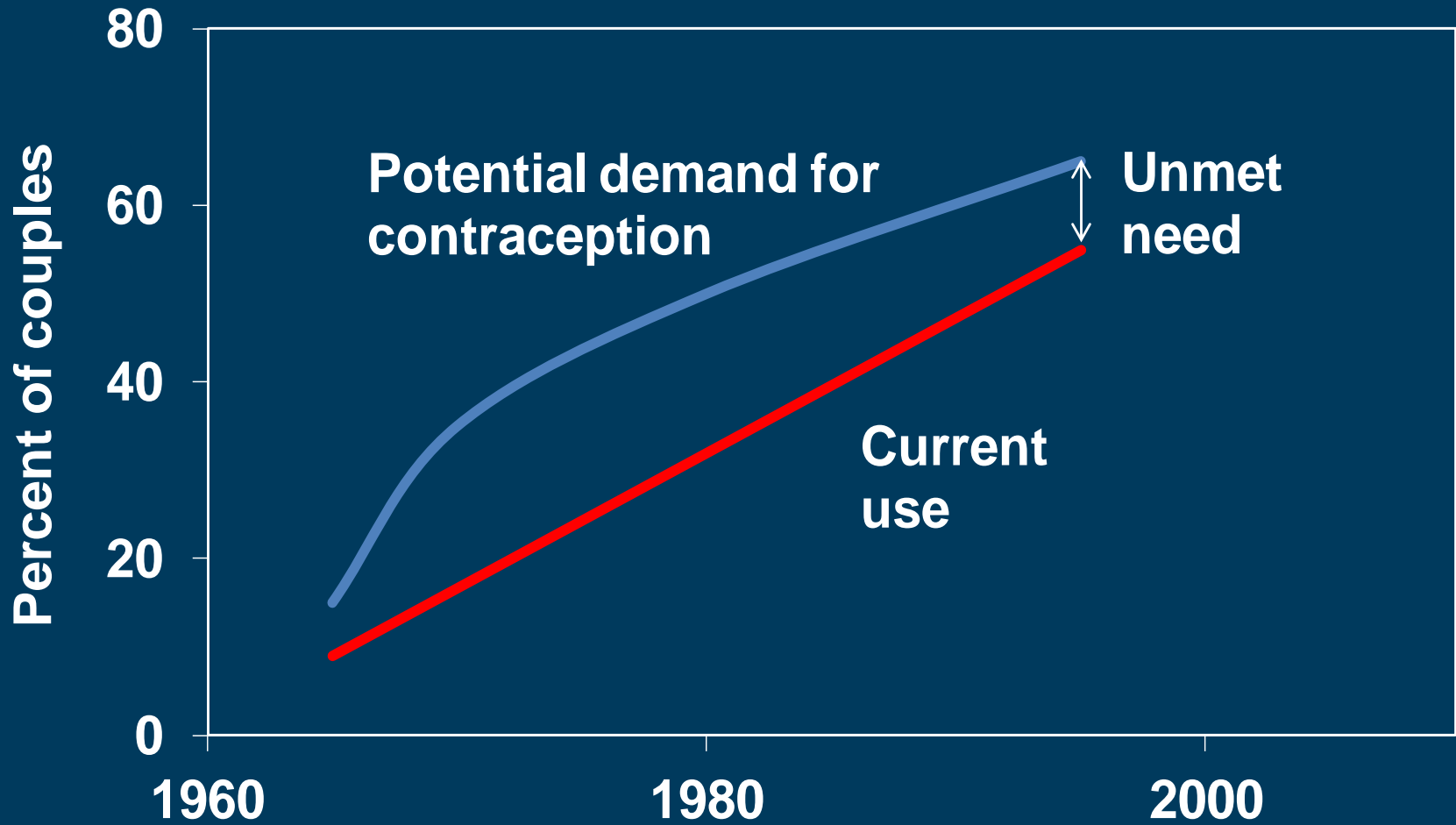
2. African exceptionalism

3. Impact of family planning programs

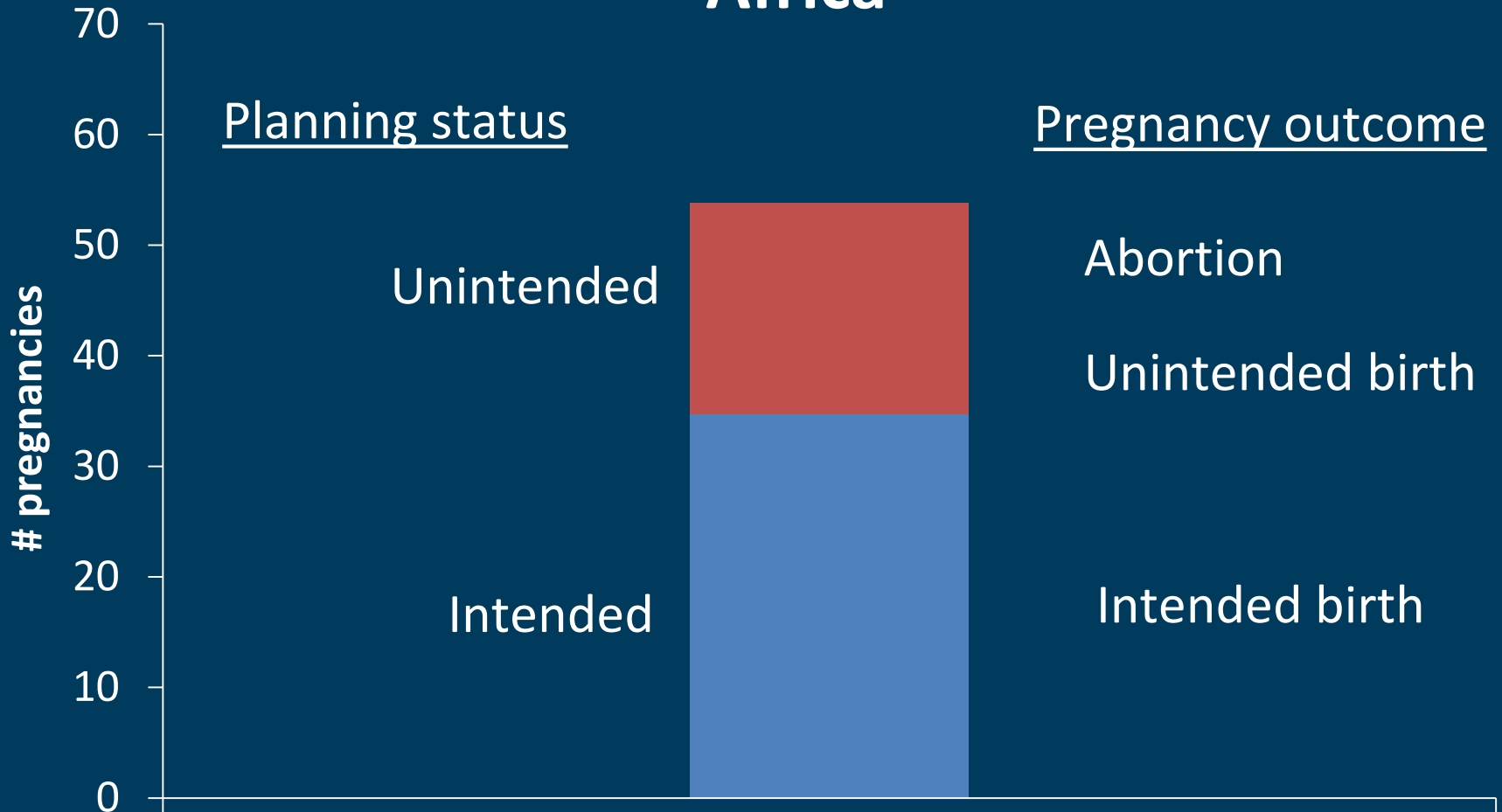
4. Conclusions



Met and unmet need for contraception, developing world

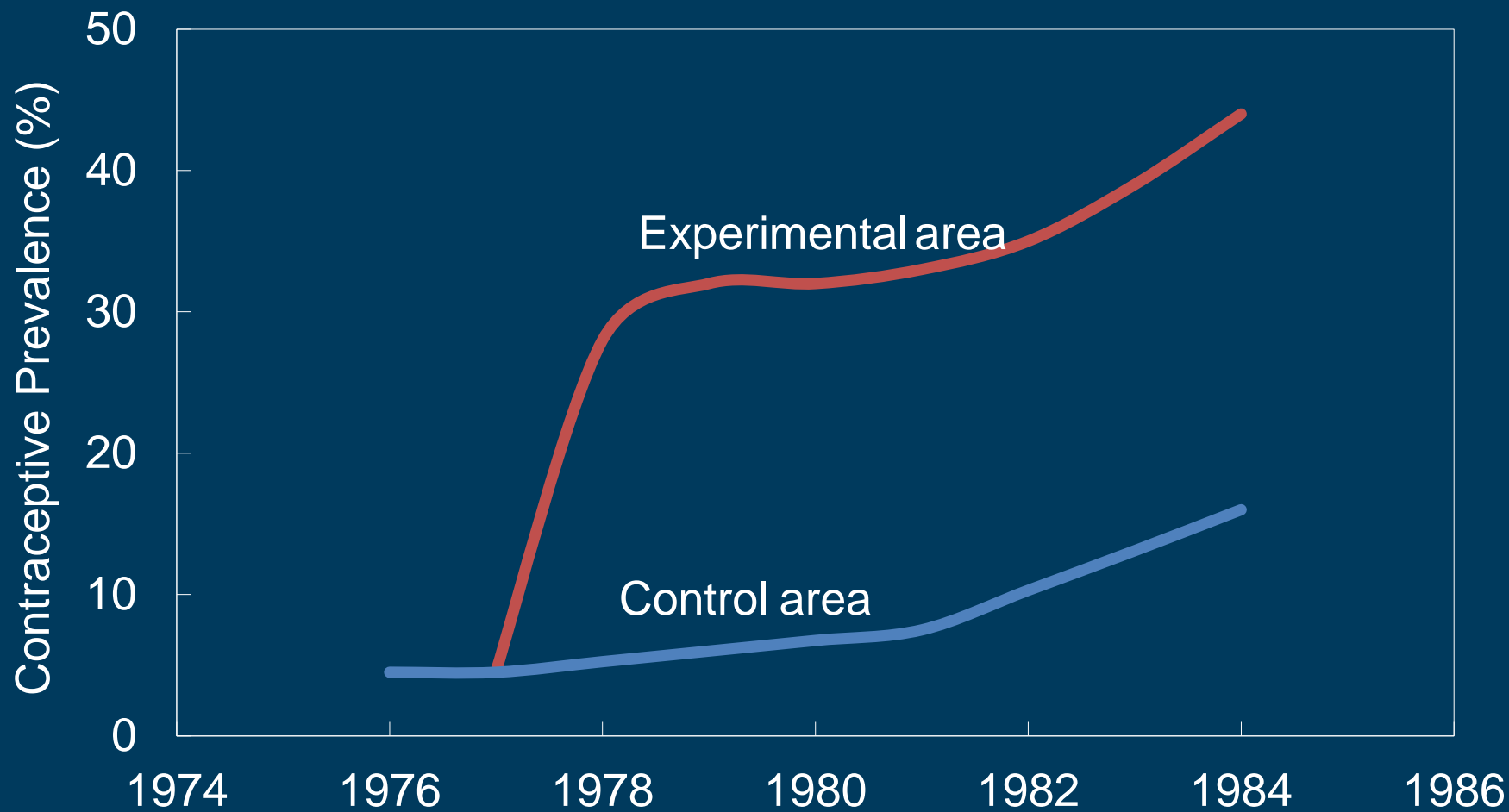


Planned and unplanned pregnancies Africa

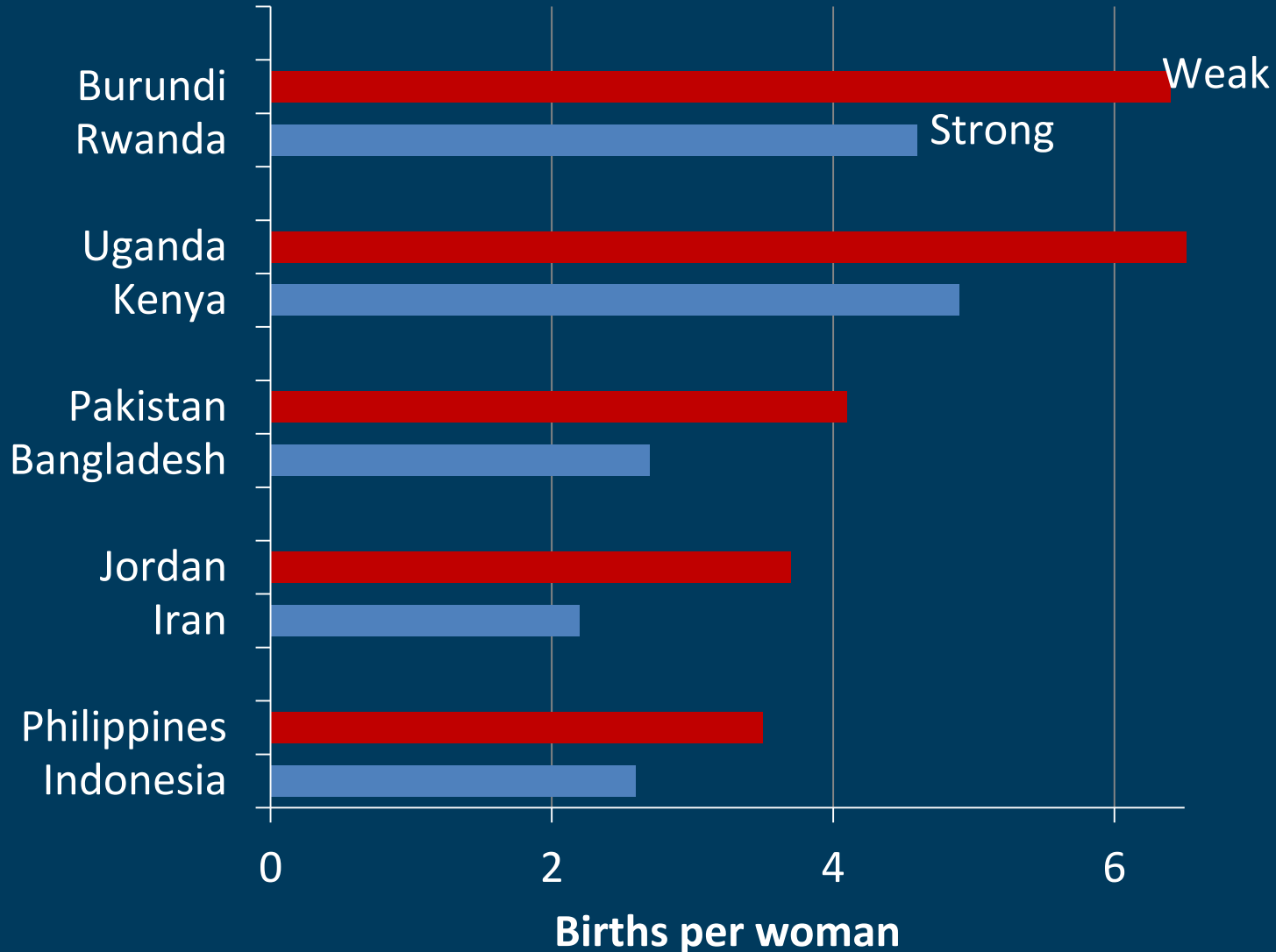


Source: Guttmacher

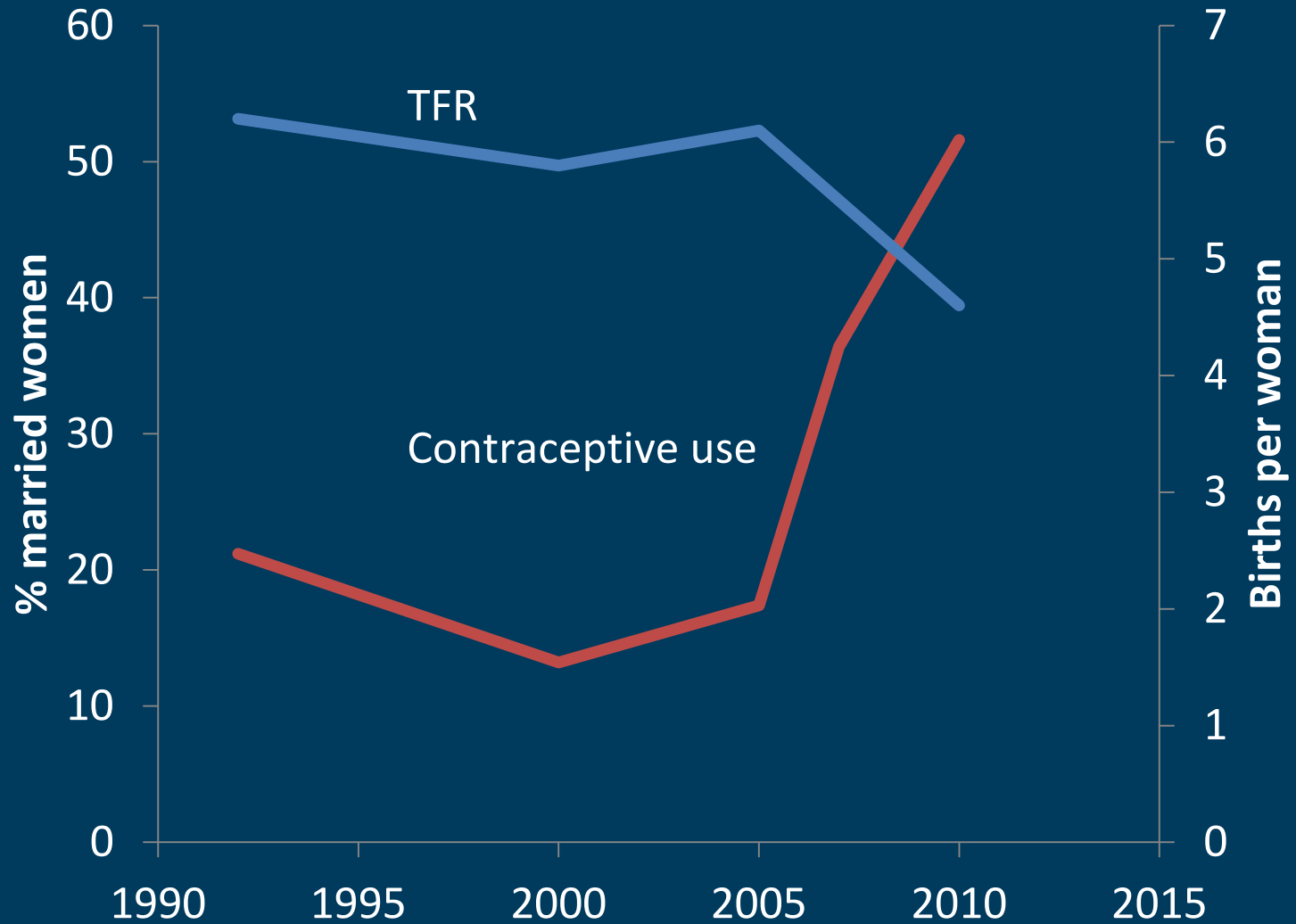
Successful FP experiment in Matlab, Bangladesh



Fertility impact of weak vs strong FP programs



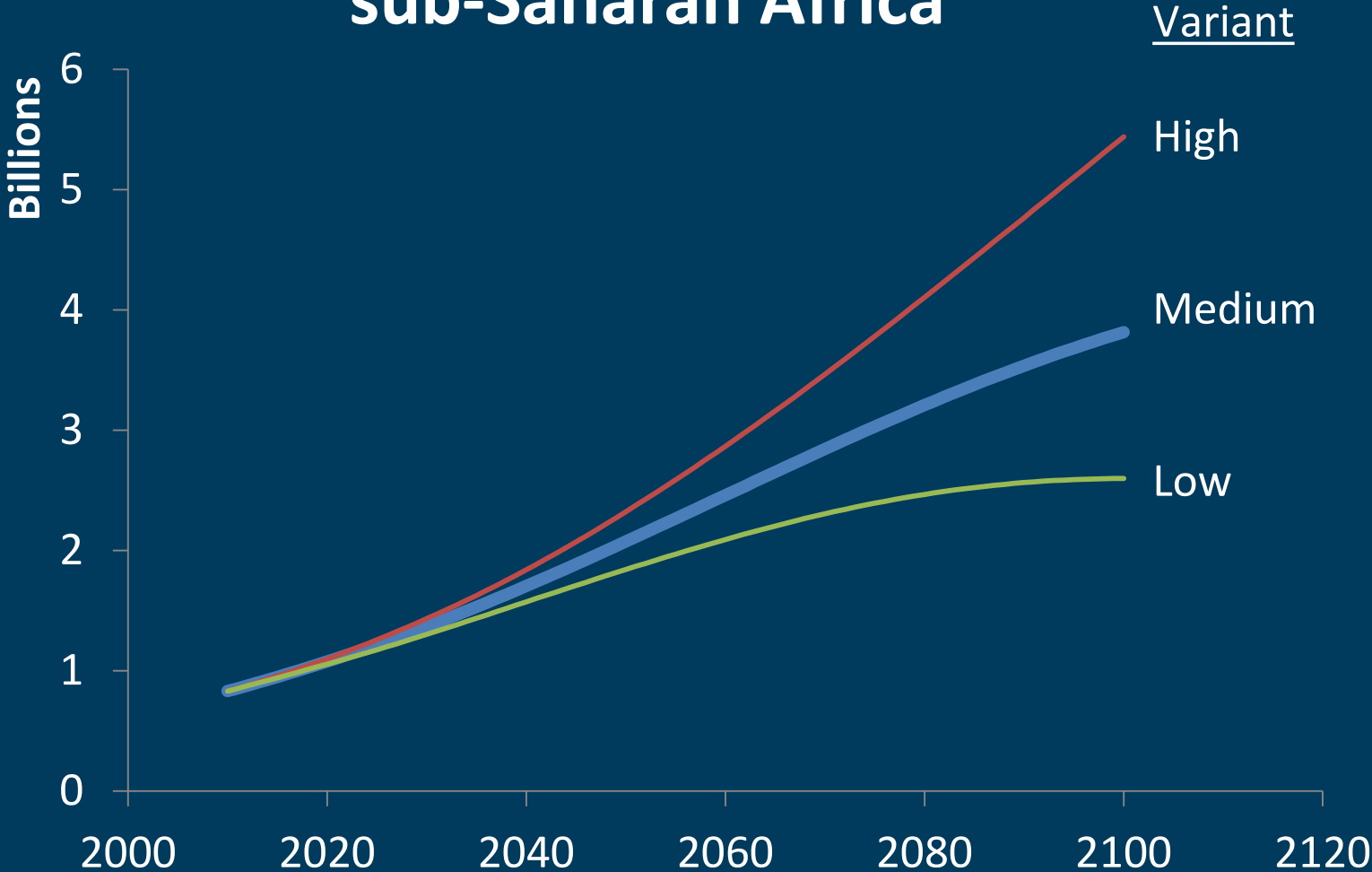
Rwanda reproductive trends



Conclusion:

- 1) High unmet need for contraception and large numbers of unplanned pregnancies
- 2) Family planning programs can reduce fertility by about 1.5 births per woman

Population projection variants sub-Saharan Africa



Source: United Nations

Causes of slow fertility decline in Africa

- 1) Slow pace of development
- 2) African pro-natalism
- 3) Weak or non-existent FP programs

Sources

- Bongaarts John, “Africa’s unique fertility transition” Paper prepared for the US National Academies of Science Workshop on Recent Trends in Fertility in Sub-Saharan Africa, June 14-15, 2015, Washington DC.
- J. Bongaarts, J. Cleland, J. Townsend, J. Bertrand, and M. Das Gupta, *Family Planning Programs for the 21st Century: Rationale and Design*, New York Population Council (2012).

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