Africa’s slow fertility transition

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Population Council

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Africa’s slow fertility transition

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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

Crude birth rate

Crude death rate

Source: United Nations
TFR trends in sub-Saharan Africa

Source: DHS
Determinants of fertility

- Socioeconomic development
- Mortality decline

Fertility

- Family planning Program
- Diffusion processes
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
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).
<table>
<thead>
<tr>
<th></th>
<th>Sub-Saharan Africa</th>
<th>Other LDCs</th>
</tr>
</thead>
<tbody>
<tr>
<td>TFR decline %</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Year of transition onset</td>
<td>1994</td>
<td>1975</td>
</tr>
<tr>
<td>GDP/cap(log)</td>
<td>6.9</td>
<td>7.7</td>
</tr>
<tr>
<td>Education (% primary+)</td>
<td>29</td>
<td>42</td>
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<tr>
<td>Life expectancy</td>
<td>51</td>
<td>59</td>
</tr>
<tr>
<td>Percent urban</td>
<td>29</td>
<td>40</td>
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</tbody>
</table>
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
   • Levels
   • Pace
2. African exceptionalism
3. Impact of family planning programs
4. Conclusions
Total fertility rate, pace

Births per woman/year

- 0.05
- 0.00
- 0.05
- 0.10
- 0.15

1960 1980 2000 2020

Africa

Other LDCs
<table>
<thead>
<tr>
<th></th>
<th>Average pace at the time of transition onset</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Sub-Saharan Africa</td>
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<tr>
<td><strong>TFR</strong></td>
<td>0.09</td>
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<tr>
<td><strong>Year</strong></td>
<td>1994</td>
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<tr>
<td><strong>GDP/cap(log)</strong></td>
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<td><strong>Education (% primary+)</strong></td>
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<td><strong>Life expectancy</strong></td>
<td>0.12</td>
</tr>
<tr>
<td><strong>Percent urban</strong></td>
<td>0.29</td>
</tr>
</tbody>
</table>
Conclusions

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

Consistent with conventional theory
Outline

1. Fertility and development trends
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2. African exceptionalism
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4. Conclusions
<table>
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<tr>
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<th>TFR 2010</th>
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</thead>
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<tr>
<td><strong>Africa effect</strong></td>
<td>1.18**</td>
</tr>
<tr>
<td><strong>GDP/cap</strong></td>
<td>-0.36*</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td>-0.019***</td>
</tr>
<tr>
<td><strong>Life expectancy</strong></td>
<td>-0.02</td>
</tr>
<tr>
<td><strong>Percent urban</strong></td>
<td>0.00</td>
</tr>
<tr>
<td><strong>R^2</strong></td>
<td>0.84</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>71</td>
</tr>
<tr>
<td><strong>Year</strong></td>
<td>2010</td>
</tr>
<tr>
<td></td>
<td>TFR</td>
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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
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Socioeconomic development and mortality decline lead to cost and benefits of children, which in turn influence fertility preferences. These preferences determine the demand for contraception. The use of contraception affects fertility, which is also influenced by family planning program access and information, cost of contraception, and unmet need for contraception.
Met and unmet need for contraception, developing world

Potential demand for contraception

Unmet need

Current use

Percent of couples

1960 1980 2000
Planned and unplanned pregnancies
Africa

Planning status
Unintended
Intended

Pregnancy outcome
Abortion
Unintended birth
Intended birth

Source: Guttmacher
Successful FP experiment in Matlab, Bangladesh

Contraceptive Prevalence (%)

Source: Cleland et al. 1994
Fertility impact of weak vs strong FP programs

- Burundi: Weak
- Rwanda: Strong
- Uganda: Weak
- Kenya: Strong
- Pakistan: Weak
- Bangladesh: Strong
- Jordan: Weak
- Iran: Strong
- Philippines: Weak
- Indonesia: Strong

Births per woman
Rwanda reproductive trends

- TFR
- Contraceptive use

% married women vs. Births per woman (1990-2015)
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

