Fertility trends and their implications for development

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Outline

• Background
  (fertility trends and population growth)

• Consequences of demographic trends
  (High / intermediate / low fertility)

• Policy options
Population growth rates 2005-2010

Population Growth Rate (% per year) 2005-2010

- <1
- 1-2
- 2+
Demographic consequences of high fertility

- Rapid population growth
- Young age structure
Youth (15-24) by country (1950=1)

- Nigeria
- Pakistan
- India
- China

Source: UN 2005

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Development consequences of demographic trends

High fertility countries

- **Economic:** Low wages, unemployment, poverty, slow growth
- **Environmental:** Depletion of natural resources, pollution
- **Health:** High maternal and child mortality
- **Governmental:** Lagging investment in education, health services and infrastructure
- **Political:** Rising political extremism and civil strife
Demographic consequences of intermediate/declining fertility

- Declining growth rates
- Fewer young people, more workers
Population by age: Mexico

1950

2000

2050

Millions

Age

0
10
0
10
0
10

Millions

0
10
0
10
0
10

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### Development consequences of demographic trends
#### Intermediate/declining fertility

<table>
<thead>
<tr>
<th>Category</th>
<th>Consequence</th>
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<tbody>
<tr>
<td>Economic</td>
<td>Rapid growth, rising wages, high inequality. Increasing engagement of women in wage-paying work</td>
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<tr>
<td>Environmental</td>
<td>Depletion of natural resources, air, water and soil pollution</td>
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<td>Health</td>
<td>Declining maternal and child mortality</td>
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<td>Governmental</td>
<td>Massive investments in education, health services and infrastructure</td>
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<tr>
<td>Political</td>
<td>Inequality and disaffected voters</td>
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Consequences of low fertility

- Near zero or negative population growth rates
- Rapid population aging
Consequences of demographic trends
Below replacement fertility

- Economic: Slower economic growth
  Slower growth in standard of living
  Slower growth in worker productivity (?)

- Governmental: Unsustainable health and pension costs
  Rising governmental budget deficits

- Political: Rising voting power of the elderly
Policy options:

A. High fertility countries
B. Below replacement fertility countries
A. Policy options in high fertility countries:

- Family planning programs
- Investments in human capital
Many unplanned pregnancies in the developing world

Source: Vlassof et al 2004

Number of pregnancies (mill)

Planning status

Unplanned

Planned

Outcome

Unplanned birth
Abortion
Planned birth

All pregnancies
Family planning programs contribute to:

- Improving maternal and child health
- Reducing poverty and inequality
- Achieving gender equality
- Ensuring environmental sustainability
- Combating HIV/AIDS
B. Policy options in aging societies

Pension system options:
Raise age at eligibility; encourage private savings; reduce benefits; raise taxes.

Labor force options
Encourage higher labor force participation and later age at retirement.

Demographic options
Encourage childbearing; permit more immigration.
Fertility and ideal family size for European countries

- Spain
- Italy
- Greece
- Austria
- West...
- Portugal
- Sweden
- Netherlands
- England...
- Finland
- France
- Denmark
- Ireland

Ideal family size
Actual fertility
**Pronatalist policy options**

1) **Reduce obstacles to childbearing**
   - Economic: childcare, maternity and paternity leave, child subsidies, etc.
   - Biological: subsidize infertility treatment and development of new biotechnology

2) **Eliminate or reverse tempo effect**
   - Encourage earlier start of childbearing and birth intervals of two or three years at most
Conclusions

• Declining high fertility brings multiple positive consequences for human welfare and the environment

• Very low fertility has net adverse effects

• Policies are available to maximize positive effects and minimize negative effects