Benefits of Meeting Women’s Contraceptive Needs in Burkina Faso

Dr. Danielle Yugbare / Belemsaga

To be released December 2011
Context
Actual and wanted fertility in Burkina Faso by wealth quintile

Fertility Rate, 2003

<table>
<thead>
<tr>
<th>Quintile</th>
<th>Wanted Fertility</th>
<th>Actual Fertility</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>5.4</td>
<td>6.2</td>
</tr>
<tr>
<td>Lowest Q</td>
<td>6.2</td>
<td>6.2</td>
</tr>
<tr>
<td>Second Q</td>
<td>6.1</td>
<td>7.1</td>
</tr>
<tr>
<td>Third Q</td>
<td>5.9</td>
<td>6.8</td>
</tr>
<tr>
<td>Fourth Q</td>
<td>5.8</td>
<td>6.7</td>
</tr>
<tr>
<td>Highest Q</td>
<td>3.4</td>
<td>3.9</td>
</tr>
</tbody>
</table>

Source: DHS 2003
Modern contraceptive use in Burkina Faso is inadequate

- 32% of all pregnancies in Burkina Faso are unintended (2008)
  - 31% of unintended pregnancies end in induced abortion
  - Another 53% of unintended pregnancies result in mistimed or unwanted births

- 39% of Burkinabe women want to space or limit the number of children they have (2009)
  - However only 36% of these women use a modern method
  - 64% have an unmet need for modern contraception
Maternal and child health situation needs improvement

- 1 in 28 women will die due to pregnancy related causes (2010)
- About 30% of women giving birth have no medical personnel in attendance (2009)
- Only one fifth of pregnant women make four prenatal care visits, as recommended (2006)
- Maternal DALYS of 236,000 (2009)
- Infant Mortality Rate (IMR) of 80 per 1,000 live births (2010)
Purpose of the new analysis

- Estimate the benefits of increasing contraceptive use:
  - Health benefits:
    - Reduced unintended pregnancy burden
    - Reduced maternal mortality
    - Reduced maternal and infant DALY’s
  - Financial benefits: reduced national health bill

- Help policymakers improve health and family well-being in Burkina Faso
Methodological Approach
Definition: Women at risk for unintended pregnancy

Sexually active:
- Married women 15-49
- Unmarried women 15-49 who had sex in last 3 months

Fecund:
- No evidence of infecundity from women’s reports
- No long period of sexual activity without contraceptive use and without pregnancy

Do not want another child soon:
- Not in the next 2 years (spacing)
- Want no more children at all (limiting)
Data inputs and their sources

- Numbers of women 15-49, by region (Burkina Faso censuses and projections)

- Distributed women 15-49 in each region by marital status and wealth index (DHS)

- Distributed women by risk and contraceptive use status, according to their region, marital status and wealth index (DHS)

- Cost from various sources: Ministry of Health, NHA, UNFPA, and other sources

- All figures in analysis are for 2009
Alternate scenarios show impact of modern contraceptive use

- Modeled four alternate patterns of use among women at risk:
  - No modern contraceptive use
  - Current level and pattern of method use
  - 50% of current unmet need is met using modern methods
  - 100% of current unmet need is met using modern methods

- Assumed desire for pregnancy, sexual exposure and fecundity remained the same across the four scenarios
Impact of Modern Contraceptive Use
Modern contraceptive use reduces abortion and unplanned childbearing.
Modern contraceptive use reduces unintended pregnancies and abortions

<table>
<thead>
<tr>
<th>Current use vs. no use</th>
<th>50% unmet need met vs. current use</th>
<th>100% unmet need met vs. current use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unintended Pregnancy and induced abortion</td>
<td>Unintended pregnancy and induced abortion</td>
<td>Unintended pregnancy and induced abortion</td>
</tr>
<tr>
<td>35%</td>
<td>43%</td>
<td>85%</td>
</tr>
</tbody>
</table>
Modern contraceptive use decreases maternal mortality and maternal DALYs

<table>
<thead>
<tr>
<th></th>
<th>Current use vs. no use</th>
<th>50% unmet need met vs. current use</th>
<th>100% unmet need met vs. current use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maternal Mortality</td>
<td>10%</td>
<td>11%</td>
<td>19%</td>
</tr>
<tr>
<td>Maternal DALY</td>
<td>14%</td>
<td>11%</td>
<td>27%</td>
</tr>
</tbody>
</table>
Improving modern contraceptive use will require financial commitment

- **Current contraceptive use**: 21 million US$
- **No modern contraceptive use**: 40 million US$
- **50% need for modern methods met**: 59 million US$
- **100% need for modern methods met**: 59 million US$
However, investing in modern contraception greatly reduces reproductive health care costs.

Cost (millions US$), 2009

<table>
<thead>
<tr>
<th>Current contraceptive use</th>
<th>No modern contraceptive use</th>
<th>50% need for modern methods met</th>
<th>100% need for modern methods met</th>
</tr>
</thead>
<tbody>
<tr>
<td>285</td>
<td>309</td>
<td>267</td>
<td>253</td>
</tr>
<tr>
<td>21</td>
<td>127</td>
<td>40</td>
<td>59</td>
</tr>
<tr>
<td>82</td>
<td>127</td>
<td>45</td>
<td>12</td>
</tr>
</tbody>
</table>
Conclusions
Bottom line: Investment in modern contraception prevents unintended pregnancy and is cost-effective

- Promotes health & wellness of women and infants, their families and Burkina society
- Reduces health inequities, avoids greater costs for pregnancy care; investments help meet MDG goals
Thank You

This study was a collaborative project of the Guttmacher Institute and l’Institut de Recherche des Sciences de la Santé, and was supported by a grant from the World Bank.

For more information, visit www.guttmacher.org
Benefits of Meeting the Contraceptive Needs of Ethiopian Women

Michael Vlassoff and Yirgu Gebrehiwot
Context
Actual and wanted fertility in Ethiopia by wealth quintile

Fertility Rate, Year?

<table>
<thead>
<tr>
<th>Country</th>
<th>Actual Fertility</th>
<th>Wanted Fertility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethiopia</td>
<td>5.4</td>
<td>4.0</td>
</tr>
<tr>
<td>Lowest Q</td>
<td>6.6</td>
<td>5.1</td>
</tr>
<tr>
<td>Second Q</td>
<td>6.0</td>
<td>4.5</td>
</tr>
<tr>
<td>Third Q</td>
<td>6.2</td>
<td>4.5</td>
</tr>
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<td>5.7</td>
<td>4.3</td>
</tr>
<tr>
<td>Highest Q</td>
<td>3.2</td>
<td>2.3</td>
</tr>
</tbody>
</table>

Source: ???
Ethiopia: 2001-2005

- 4 in 10 pregnancies were unintended
  - 16% result in induced abortions
  - 26% result in unplanned births

- 1/4 of births have short spacing with the highest mortality risk for infants

- Poor women have 1.5 children more than they want (versus < 0.9 for wealthiest women)
Health risks for women and infants accompany pregnancy

- Pregnancy-related mortality and morbidity among women
  - MMR of 671 per 100,000 live births
  - 1,500,000 maternal DALYs lost

- Mortality and morbidity among infants
  - IMR: 80 per 1000 live births

- Only 24 in 100 women with abortion complications receive treatment
Current contraceptive use in Ethiopia is inadequate

- Only 16% of married women use a method.
- 71% sexually active unmarried women use a method
- 34% married women have an unmet need for family planning
Purpose of the new analysis

- Help policymakers improve health and family well-being in Ethiopia
- Estimate the costs and benefits of contraceptive use
  - Health benefits in terms of reduced pregnancy burden, mortality, and DALYs
  - Financial benefits in terms of a reduced national health bill
- Special emphasis on poor women and regions
Methodological Approach
Definition: Women at risk for unintended pregnancy

Sexually active:
- Married women 15-49
- Unmarried women 15-49 who had sex in last 3 months

Fecund:
- No evidence of infecundity from women’s reports
- No long period of sexual activity without contraceptive use and without pregnancy

Do not want another child soon:
- Not in the next 2 years (spacing)
- Want no more children at all (limiting)
Data inputs and their sources

- Numbers of women 15-49, by region (Ethiopia 2007 census)

- Distributed women 15-49 in each region by marital status and wealth index (DHS 2005)

- Distributed women by risk and contraceptive use status, according to their region, marital status and wealth index (DHS)

- Cost data from various sources: FMOH, UNFPA, ESOG, and recent studies
Alternate scenarios show impact of contraceptive use

- Modeled four alternate patterns of use among women at risk:
  - No modern contraceptive use
  - Current level and pattern of method use
  - 50% of current unmet need is met using modern methods
  - 100% of current unmet need is met using modern methods

- Assumed desire for pregnancy, sexual exposure and fecundity remained the same across the four scenarios
Impact of Contraceptive Use
Modern contraceptive use reduces abortion and unplanned childbearing

Millions of pregnancies, year?

- **3,978** abortions, 1,253 unplanned births and miscarriages, and 2,343 intended pregnancies when current method use is 50% unmet need.
- **4,627** abortions, 1,714 unplanned births and miscarriages, and 2,343 intended pregnancies when no modern method use is 50% unmet need.
- **3,224** abortions, 677 unplanned births and miscarriages, and 2,343 intended pregnancies when 50% unmet need met.
- **2,490** abortions, 106 unplanned births and miscarriages, and 2,343 intended pregnancies when 100% unmet need met.
Modern contraceptive use reduces unintended pregnancies and abortions

Current use vs. no use

- Unintended Pregnancy and induced abortion: 30%

50% unmet need met vs. current use

- Unintended pregnancy and induced abortion: 46%

100% unmet need met vs. current use

- Unintended pregnancy and induced abortion: 90%
Modern contraceptive use decreases maternal mortality and maternal DALYs

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</tr>
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<tbody>
<tr>
<td>Maternal Mortality</td>
<td>11% ▼</td>
<td>15% ▼</td>
<td>31% ▼</td>
</tr>
<tr>
<td>Maternal DALY</td>
<td>14% ▼</td>
<td>14% ▼</td>
<td>37% ▼</td>
</tr>
</tbody>
</table>
Poorer women make greater gains in health outcomes

Maternal deaths averted, per 100,000 women

<table>
<thead>
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<th>100% unmet need met vs. current use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poorest</td>
<td>4</td>
<td>19</td>
<td>38</td>
</tr>
<tr>
<td>Wealthiest</td>
<td>28</td>
<td>11</td>
<td>23</td>
</tr>
</tbody>
</table>
Improving modern contraceptive use will require financial commitment

<table>
<thead>
<tr>
<th>Family planning cost (millions US$), year?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current contraceptive use</td>
</tr>
<tr>
<td>No modern contraceptive use</td>
</tr>
<tr>
<td>50% need for modern methods met</td>
</tr>
<tr>
<td>100% need for modern methods met</td>
</tr>
</tbody>
</table>

- Current contraceptive use: 53
- No modern contraceptive use: 118
- 50% need for modern methods met: 182
Improving modern contraceptive use will require financial commitment (con’t)

<table>
<thead>
<tr>
<th></th>
<th>Cost (millions US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current contraceptive use</td>
<td>53</td>
</tr>
<tr>
<td>No modern contraceptive use</td>
<td>118</td>
</tr>
<tr>
<td>50% need for modern methods met</td>
<td>182</td>
</tr>
</tbody>
</table>

- **Current contraceptive use**
  - Capital cost: 31.9
  - Overhead cost: 8.0
  - Personnel cost: 9.8

- **No modern contraceptive use**
  - Capital cost: 71.1
  - Overhead cost: 17.9
  - Personnel cost: 21.8

- **50% need for modern methods met**
  - Capital cost: 11.1
  - Overhead cost: 7.2
  - Personnel cost: 109.6

- **100% need for modern methods met**
  - Capital cost: 33.6
  - Overhead cost: 27.6
  - Personnel cost: 109.6

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Investing in modern contraception greatly reduces unintended pregnancy costs

Cost (millions US$), year?

- **Current contraceptive use**: 466
  - Family planning costs: 53
  - Medical costs: unintended preg: 183
  - Medical costs: intended preg: 229

- **No modern contraceptive use**: 508
  - Family planning costs: 279
  - Medical costs: unintended preg: 229
  - Medical costs: intended preg: 229

- **50% need for modern methods met**: 450
  - Family planning costs: 118
  - Medical costs: unintended preg: 103
  - Medical costs: intended preg: 229

- **100% need for modern methods met**: 432
  - Family planning costs: 182
  - Medical costs: unintended preg: 20
  - Medical costs: intended preg: 229

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Conclusions
Bottom line: Investment in modern contraception prevents unintended pregnancy and is cost-effective.

- Promotes health & wellness of women and infants, their families and Ethiopian society.
- Reduces health inequities, avoids greater costs for pregnancy care; investments help meet MDG goals.
Thank You

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ADDING IT UP

The costs and benefits of investing in family planning and maternal and newborn health
ADDING IT UP
The Benefits of Investing in Sexual and Reproductive Health Care

Adding It Up
THE COSTS AND BENEFITS OF INVESTING IN FAMILY PLANNING AND MATERNAL AND NEWBORN HEALTH
Objectives of 2009 study

Estimate the costs and benefits of providing family planning and maternal and newborn health care to women in developing countries who are in need of these services.

Provide data to help decision makers focus resources on health care interventions with the greatest returns for individuals and societies.
Key Findings

Simultaneously meeting the needs for family planning services and maternal and newborn health care in the developing world would:

- cut maternal deaths by more than two-thirds
- reduce newborn deaths by more than half
- generate a range of other benefits, such as reducing poverty and helping countries achieve economic development goals

Investing in family planning would reduce maternal and newborn health care costs.
GLOBAL CONTEXT

Uneven Progress
Unintended pregnancy rates are down in all regions of the developing world.

Number of unintended pregnancies per 1,000 women 15-44


Asia: 1995: 64, 2008: 49


Globally unintended pregnancy rates have decreased because contraceptive use has increased.

% of married women aged 15-49 practicing contraception

<table>
<thead>
<tr>
<th>Region</th>
<th>1990</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>17</td>
<td>28</td>
</tr>
<tr>
<td>Asia</td>
<td>57</td>
<td>68</td>
</tr>
<tr>
<td>Latin America</td>
<td>62</td>
<td>71</td>
</tr>
<tr>
<td>Europe</td>
<td>66</td>
<td>68</td>
</tr>
<tr>
<td>North America</td>
<td>71</td>
<td>72</td>
</tr>
<tr>
<td>World</td>
<td>54</td>
<td>63</td>
</tr>
</tbody>
</table>

But 215 million women in the developing world have an unmet need for modern contraception.
More progress is needed in maternal and newborn care

Of the 123 million women giving birth each year...

- 60 million make too few or no antenatal visits
- 55 million do not deliver in a health facility
- 21 million have untreated obstetric complications

= 10 million
Unsafe abortion and its consequences are all too common

20 million women have unsafe abortions each year

8.5 million experience complications that require medical treatment

Of those, 3 million have untreated postabortion complications

= 10 million
Global disparities in maternal health care remain very large in developing countries

% of women giving birth who received care, 2008

<table>
<thead>
<tr>
<th>Country Type</th>
<th>At least four antenatal visits</th>
<th>Delivery in a health facility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low-income countries</td>
<td>38</td>
<td>93</td>
</tr>
<tr>
<td>Lower-middle income countries</td>
<td>54</td>
<td>60</td>
</tr>
<tr>
<td>Upper-middle income countries</td>
<td>76</td>
<td>38</td>
</tr>
</tbody>
</table>
We considered three scenarios

Meeting **100%** of the need for:

**Scenario 1**
Modern family planning services alone

**Scenario 2**
Maternal and newborn care alone

**Scenario 3**
Family planning and maternal and newborn care together
SCENARIO 1

Meeting the need for modern family planning services alone
Providing contraceptives to all who need them would cost an additional $3.6 billion in 2008 US$.

- Total: $6.7 billion
  - Contraceptive commodities and supplies: $3.6 billion
    - 100% of unmet need met: $0.6 billion
    - Current levels of care: $3.1 billion
  - Health worker salaries: $1.6 billion
    - 100% of unmet need met: $0.8 billion
    - Current levels of care: $0.8 billion
  - Program and systems costs: $2.7 billion
    - 100% of unmet need met: $0.2 billion
    - Current levels of care: $1.5 billion
Addressing all unmet need for modern family planning would result in fewer:

- Unintended pregnancies: 53 million
- Abortions: 25 million
- Unplanned births: 22 million
- Deaths among women and newborns: 680,000
- Children who will lose their mothers: 390,000

$1 spent on contraception = $1.40 saved in maternal and newborn health care costs
SCENARIO 2

Meeting the need for maternal and newborn health services alone
Providing basic maternal and newborn health care to all who need it would cost an additional $14 billion...

<table>
<thead>
<tr>
<th>Service</th>
<th>2008 US$ (in billions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>23.0</td>
</tr>
<tr>
<td>Delivery, newborn, &amp; postpartum care</td>
<td>14.0</td>
</tr>
<tr>
<td>Antenatal care</td>
<td>8.1</td>
</tr>
<tr>
<td>Postabortion care</td>
<td>0.8</td>
</tr>
</tbody>
</table>

- Orange: 100% of unmet need met
- Black: Current levels of care

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...but would dramatically reduce maternal and newborn deaths

Maternal and newborn deaths (in thousands), 2008

- Maternal deaths: 356 (57% reduction)
- Newborn deaths: 1,840 (42% reduction)

Current maternal and newborn health care: 100% coverage
SCENARIO 3

Meeting the needs for family planning and maternal & newborn health care simultaneously
Expanding access to family planning would reduce the cost of improved maternal and newborn health care, saving $1.5 billion in 2008 US$ (in billions)

- Expanded MNH care only: 3.1 + 6.9 + 16.1 = 26.1
- Expanded FP and MNH care: 6.7 + 1.8 + 16.1 = 24.6

- Contraceptive services
- Maternal and newborn care for unintended pregnancies
- Maternal and newborn care for intended pregnancies
Simultaneously meeting family planning and maternal/newborn health care needs would prevent:

- 53 million unintended pregnancies
- 22 million unplanned births
- 25 million abortions
- 7 million miscarriages
- 1.7 million newborn deaths
- 250,000 maternal deaths
Maternal deaths would decline by 71% if family planning and maternal health care needs were met.

Maternal deaths (in thousands), 2008

- Current levels of care: 232 (intended) + 125 (unintended) = 357
- Expanded FP use only: 232 (intended) + 31 (unintended) = 262
- Expanded MNH care only: 89 (intended) + 65 (unintended) = 153
- Expanded FP and MNH care: 89 (intended) + 16 (unintended) = 105

Maternal deaths would decline by 71% if family planning and maternal health care needs were met.
Africa would account for more than half of the global reduction in maternal deaths. Africa 57% of all maternal deaths averted. Asia 41%, Latin America 2%. Maternal deaths prevented (250,000).
Bottom line: Dual investment (MNH + FP) is the most cost-effective strategy...

The total cost of providing both services is $24.6 billion. This is $1.5 billion less than providing maternal and newborn care alone, savings that result from preventing unintended births.

...and saves more lives.
Thank You

Adding It Up was a collaborative project of Guttmacher and UNFPA. IPPF and the World Bank provided additional support.

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