Achieving the Millennium Development Goals

How can family planning contribute?

Uganda

July 2009, Based on 2006 Uganda DHS
Content

- Methodology
- Results
- Discussion of costs and savings
- Health benefits
- Conclusion

To access the FP-MDG analyses:
http://www.healthpolicyinitiative.com
Methodology

- Focus on select MDG indicators

- Project two scenarios:
  - Both assume the MDGs indicators are achieved
  - “Met need” assumes unmet need is gradually met
  - “Base” assumes that unmet need is not met and the contraceptive prevalence rate remains constant

- Calculate the costs of meeting the MDGs for each projection

- Compare the cost projections and calculate the difference
High levels fertility

TFR=6.7

Rapid population growth

Increased # pregnancies

Increased # births

> 1.2 Million

Increased # WRA

> 2.2 Million

Increased # pregnancies

> 125,000 per year
Many women want to space or limit their births but do not use family planning.

Users defined as married women of reproductive age (MWRA) currently using contraception

Unmet need represents those who want to use family planning but are not currently doing so.

Source: DHS

1,653,400

950,000

Potential users
FP users
If unmet need is met, the number and percent of women using FP will increase....

Source: SPECTRUM 2.41 Projections
GOAL: Ensure that by 2015, children everywhere, boys and girls alike, will be able to complete the course of primary schooling.

INDICATOR: Net enrollment in primary education

TARGET: 100% enrollment in primary education

MDG 2: Achieve universal primary education
**TARGET:** 100% enrollment in primary education.

Primary education
net enrollment rate

Uganda

Source: United Nations Statistics Division, 2004
Reducing unintended births lowers the number of school age children in Uganda

Annual number of children to be enrolled in primary education to meet the MDG in Uganda (2008-2015)

UN Statistics Division, 2004 and author’s calculations
… which reduces the cost of achieving universal primary education.

Cumulative primary education cost savings in Uganda

$0 $7,000,000 $14,000,000 $21,000,000


$20.4 m

Author’s calculations
MDG 4: Reduce child mortality

**GOAL:** Reduce by two thirds, between 1990 and 2015, the under-five mortality rate

**INDICATOR:** Proportion of 1 year old children immunized against measles

**TARGET:** 100% measles immunization of 1 year old children
Child health targets and current status

**TARGET:** 100% measles immunization of 1-year-old children

Percentage of 1-year-old children vaccinated for measles

- **Uganda**
  - Current: 86%
  - MDG: 14%

Source: United Nations Statistics Division, Millennium Indicators Database.
Reducing unintended births reduces the number of children needing vaccinations

Number of children needing a measles vaccine in Uganda (2008-2015)

4.6 million fewer vaccinations over 7 years

Source: UN Statistics Division, 2004 and author’s calculations
… which reduces the costs of meeting the immunization target.

Cumulative vaccination cost savings in Uganda

$0

$17,500,000

$35,000,000

$52,500,000

$70,000,000

$68.5 million


Source: WHO and Author’s calculations
MDG 5: Improve maternal health

**GOAL:** Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio

**INDICATOR:** Proportion of births attended by skilled health personnel

**TARGET:** All births attended by skilled health personnel
Maternal health status and targets

TARGET: All births attended by skilled health personnel

Attendance by skilled attendents at births

Uganda

Source: DHS, UNICEF
Meeting unmet need will reduce the number of births...

Births in Uganda

UN Statistics Division, 2004 and author's calculations
... resulting in reduced costs for the health system.

Cumulative attended birth cost savings in Uganda

Source: Author’s calculations
MDG 6: Combat HIV/AIDS, malaria, and other diseases

**GOAL:** By 2015, halt and begin to reverse the incidence of malaria and other diseases

**INDICATOR:** Percentage of children under 5 sleeping under insecticide treated bed-nets

**TARGET:** 60% of children under 5 sleeping under insecticide treated bed-nets
**Target:** 60% of children under 5 sleeping under insecticide treated bed-nets

**Uganda**

Source: UN Statistics Division, 2004
Fulfilling unmet need reduces the number of ITNs required to reach 60% coverage...

Annual number of children under age 5 needing ITNs in Uganda

2 million fewer nets needed over 7 years

Source: UN Statistics Division, 2004 and author’s calculations
Cumulative savings in Uganda for reaching ITN coverage goal (2008-2015)

Source: Malaria Task Force and author’s calculations
MDG 7: Ensure environmental sustainability

**GOAL:** By 2015, reduce by half the proportion of people without sustainable access to safe drinking water and sanitation

**INDICATOR:** Proportion of population with access to an improved water source and improved sanitation

**TARGET:** 50% reduction in population without access to safe drinking water and sanitation
Fulfilling unmet need reduces the number of people needing safe water and sanitation...

Annual # of new people in Uganda with access to safe water and sanitation (2008-2015)

Source: UN Statistics Division, 2004 and author’s calculations
… which reduces the cost of achieving safe water and sanitation targets.

Cumulative savings to provide safe water and sanitation in Uganda (2008 - 2015)

$0,000,000 $12,000,000 $18,000,000 $24,000,000 $30,000,000


$29 m

Source: WHO and author’s calculations
Weighing the costs and savings....
The savings resulting from reducing unmet need are greater than the costs

<table>
<thead>
<tr>
<th></th>
<th>Costs (Millions)</th>
<th>Savings (Millions)</th>
<th>Savings Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Family Planning</strong>*</td>
<td>$107.43</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td>$20.43</td>
<td>$20.43</td>
<td>0.19</td>
</tr>
<tr>
<td><strong>Immunization</strong></td>
<td>$68.46</td>
<td>$68.46</td>
<td>0.64</td>
</tr>
<tr>
<td><strong>Maternal Health</strong></td>
<td>$73.73</td>
<td>$73.73</td>
<td>0.69</td>
</tr>
<tr>
<td><strong>Water</strong></td>
<td>$28.55</td>
<td>$28.55</td>
<td>0.27</td>
</tr>
<tr>
<td><strong>Malaria – ITN</strong></td>
<td>$7.59</td>
<td>$7.59</td>
<td>0.07</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$198.77</td>
<td>$198.77</td>
<td>1.85</td>
</tr>
</tbody>
</table>

*Family planning cost based on cost per CYP
Reducing unmet need also results in lower maternal mortality...

Number of maternal deaths averted due to increased use of family planning (2008-2015)

- Base: 32,286
- Need met: 26,773

5,513 maternal deaths averted
... and fewer child deaths.

Number of child deaths averted due to increased use of family planning (2008-2015)

- Base: 1,087,050
- Need met: 635,467

- 451,584 child deaths averted
Conclusion

- Achieving the MDGs is a challenge

- Reaching the MDGs will be easier and less expensive if contraceptive use increases as a result of fulfilling unmet need

- There are also significant health benefits to reducing unmet need for family planning
Thank you for your attention.

Questions or comments?

To access the FP-MDG analyses:
http://www.healthpolicyinitiative.com
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CPR and unmet need

<table>
<thead>
<tr>
<th></th>
<th>CPR</th>
<th>Unmet need</th>
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<tbody>
<tr>
<td>Uganda</td>
<td>23.7</td>
<td>40.6</td>
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## CPR assumptions

<table>
<thead>
<tr>
<th>Country</th>
<th>Current CPR</th>
<th>CPR + unmet need</th>
<th>Annual increase by 2015</th>
<th>Annual increase by 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uganda</td>
<td>23.7</td>
<td>64.3</td>
<td>5.8</td>
<td>3.4</td>
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</tbody>
</table>
# Unit costs for MDGs

<table>
<thead>
<tr>
<th>Sector</th>
<th>Parameter</th>
<th>Unit Cost (US$)</th>
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<tbody>
<tr>
<td>Family Planning</td>
<td>Cost per couple-year of protection</td>
<td>$11.20</td>
</tr>
<tr>
<td>Education</td>
<td>Cost per pupil</td>
<td>$42.3-52.4</td>
</tr>
<tr>
<td>Immunization</td>
<td>Cost per fully immunized child</td>
<td>$17.00</td>
</tr>
<tr>
<td>Maternal Health</td>
<td>Cost per birth</td>
<td>$27.70-$34.30</td>
</tr>
<tr>
<td>Water/Sanitation</td>
<td>Cost per beneficiary</td>
<td>$4.60</td>
</tr>
<tr>
<td>Malaria - ITN</td>
<td>Cost per treated-net-year</td>
<td>$4.40</td>
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