A Case for Investment in Maternal Survival and Health

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The Impact of Maternal Mortality and Morbidity on Economic Development

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Agenda

- Case for investment
  - Foreign policy
  - Economic and Social
    - Global
    - Bangladesh
    - Afghanistan

- Looking ahead
  - Private sector services
  - Medical interventions
  - Keeping an eye on cost & pregnancy outcomes
Foreign policy case for investing in health/maternal health

• U.S. has a national interest in advancing the well-being, prosperity of other countries. Countries with healthy populations are more likely to grow economically.

• U.S. leadership in global health can help lay foundations for effective working relationships that will be reservoirs of goodwill for the U.S. in difficult times.

• Maternal health has tremendous appeal as an area for U.S. global leadership because it allows us to showcase what others admire most about our country
  – altruism
  – a can do pragmatic approach to solving problems
  – dynamic private sector that can work with the public sector
  – application of science and innovation in service of people.

…Industrial College of the Armed Forces
Department of Defense National Defense University
Foreign policy case for investing in health/maternal health

• We are “pursuing a comprehensive global health strategy [because] the United States has a moral and strategic interest in promoting global health.”

• The US National Security Strategy identifies promoting democracy and human rights abroad as a key value. Part of promoting democracy and human rights is “Supporting the rights of women and girls: Women should have access to the same opportunities and be able to make the same choices as men. Experience shows that countries are more peaceful and prosperous when women are accorded full and equal rights and opportunity.”

...US National Security Strategy May 2010
REDUCE Model 2000

- Direct causes, indirect causes, other conditions
- 1995 UN estimate of maternal mortality; 1990 Global burden of Disease
- Assumptions for each complication: case disability rate, average onset age, average duration → lifetime productivity loss calculation
- Global calculation
  - $6.814 bn maternal disabilities
  - .675 bn maternal deaths
  - 8.249 bn child disabilities
  - $15 billion annually

Source: Bart Burkhalter/AED USAID/SARA & other Projects
## Estimates of cost for scaling up maternal care

<table>
<thead>
<tr>
<th>Intervention/scenario</th>
<th>Additional annual cost for expansion</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lancet Neonatal Survival (2005) Darmstadt et al</strong></td>
<td>16 interventions 90% coverage 75 countries</td>
</tr>
</tbody>
</table>

Estimated cost $4.1-6.1 bn annual cost for expansion of maternal care to reduce death and disability is substantially less than the $15 bn annual estimated cost of maternal and newborn mortality and disability

Source: Gill et al, Women Deliver, 2007
Economic case for investing in maternal health – household level

Working Paper:
Coping with the Costs of Maternal Illness in Rural Bangladesh

► To determine the costs associated with maternal morbidity and the financial burden these place on the household budget

► To estimate the effect of maternal morbidity on the economic condition of families

► To understand how households cope with any loss of resources

Mohammad Enamul Hoque (ICDDR,B)   Timothy Powell-Jackson (LSHTM)
The financial burden: Household spending & loss of income associated with maternal morbidity

Mohammad Enamul Hoque (ICDDR,B)  Timothy Powell-Jackson (LSHTM)
Maternal morbidity leads to a considerable loss of resources up to 6 weeks postpartum.

16,000 Taka = $230 US

Mohammad Enamul Hoque (ICDDR,B)  Timothy Powell-Jackson (LSHTM)
Effect of maternal morbidity on household consumption, and coping mechanisms

Mohammad Enamul Hoque (ICDDR,B)  Timothy Powell-Jackson (LSHTM)
### Sources of finance for maternal care

<table>
<thead>
<tr>
<th>Proportion of out-of-pocket payments financed using:</th>
<th>Severe complication</th>
<th>Less severe complication</th>
<th>Normal delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income and savings</td>
<td>30.7%</td>
<td>41.4%</td>
<td>64.8%</td>
</tr>
<tr>
<td>Loans</td>
<td>44.2%</td>
<td>31.8%</td>
<td>19.8%</td>
</tr>
<tr>
<td>Donations</td>
<td>14.7%</td>
<td>19.7%</td>
<td>11.2%</td>
</tr>
<tr>
<td>Sale of assets and other sources</td>
<td>10.5%</td>
<td>7.1%</td>
<td>4.2%</td>
</tr>
</tbody>
</table>

Mohammad Enamul Hoque (ICDDR,B)  Timothy Powell-Jackson (LSHTM)
Household costs of maternal health seeking are high and the financial burden is greatest among the poorest.

- In households where there was a maternal complication, 2/3 incur catastrophic expenditure — more than 10% of their annual budget.

- Poorest quintile spends 30% of annual household expenditure on maternal care when there is a complication, compared with 8% for the richest quintile.

- In the case of a maternal complication, women borrowed 7,805 Taka ($113), while average monthly expenditure was 13,749 Taka ($199).

- Families (particularly the poorest) with an obstetric morbidity who took out loans struggle to pay them back – borrowing and sale of assets are indicative of more desperate means to cope with high financial costs of paying for maternal health care.

Mohammad Enamul Hoque (ICDDR,B)  Timothy Powell-Jackson (LSHTM)
• Households with maternal morbidity appear to cope – they do not cut back on consumption

• Financial protection is needed for the poorest to encourage use of facilities for delivery and prevent families being impoverished

• Demand side financing should be expanded conditional on evaluation. Sustainable policy options should be considered in the long-term

Mohammad Enamul Hoque (ICDDR,B)  Timothy Powell-Jackson (LSHTM)
### Maternal Mortality and the Cycle of Poverty in Afghanistan

#### Event in the Cycle of Poverty

<table>
<thead>
<tr>
<th>Event</th>
<th>Financial and Human Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mother delivers life twins in hospital and dies</td>
<td>Hospital and funeral expenses</td>
</tr>
<tr>
<td>Father - Time off for birth and funeral</td>
<td>Lost wages</td>
</tr>
<tr>
<td>11-year old daughter - Leaves school to care for twins</td>
<td>Lost education</td>
</tr>
<tr>
<td>Twins feed on goat milk and infant formula, often ill</td>
<td>Milk/formula expense plus medical expenses</td>
</tr>
<tr>
<td>13-year old son - Leaves school to work</td>
<td>Lost education</td>
</tr>
<tr>
<td>At 7 mos., smaller twin dies</td>
<td>Medical expenses</td>
</tr>
<tr>
<td>Father remarries</td>
<td>Remarriage expenses</td>
</tr>
<tr>
<td>At 13 years, surviving twin marries, at 15, gives birth to brain-damaged baby, suffers obstetric fistula, is cast out by husband and returns to her father</td>
<td>Medical expenses and social exclusion</td>
</tr>
</tbody>
</table>

**Family debt and community impoverishment**

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*Jeff Smith/Jhpiego*
USAID support for maternal health

FY 2000: 363 MCH + 372 FP/RH = $735m  
FY 2010: 739 MCH + 596 FP/RH = $1,334m

1-11 = FY 2000-2010 enacted; 12 = FY 2011 request ($1.724m)
The private sector is the site of a substantial and growing proportion of facility births.

Total Facility Births, by Facility Type, Asia, 1998—2008

M Koblinsky/JSI, S Alva/AIM, A Pomeroy/AIM

*India facility rates are for three years preceding the survey, because the 1998 data do not have information on births five years preceding survey. For all other countries, these rates are for all births five years preceding survey. All DHS data; first time point was chosen to be from the fourth round of DHS survey collection (1997-2003) while the second time point was chosen to be in the fifth phase (2003-Present).
Growth in private C-Section births is largely responsible for the growth in overall C-Section births.
Maternal health care costs can skyrocket… sometimes without improvement in health outcomes

In the United States in 2005  Sakala and Corry, Evidence-Base Maternity Care 2008
• Maternity care was the leading cause of hospitalization/office visits
• Medical induction of labor, cesarean sections, and repair of obstetric lacerations were the top 3 procedures billed to Medicaid
• The US had the greatest overall health expenditure per capita of 30 OECD countries
• Meanwhile, many trends were headed in the wrong direction, including rising preterm births and low birth weight; the US was ranked behind 29 other countries in maternal mortality and 33 other countries in neonatal mortality

In WHO surveys (2004-2008), hospital rates of cesarean section
• 27.3% in Asia – C/S without a medical indication was associated with higher maternal mortality and severe morbidity
• 33% (49% elective) in LAC Asia — increased C/S rates associated with severe maternal morbidity and mortality, fetal mortality, preterm delivery and neonatal mortality
• <9% in Africa – need to expand availability of C/S

_C/S costs 2 X as much as a vaginal birth in Uganda,¹ 4-5 X as much in Malawi,¹ 5-6 x as much in Ghana,¹ 10 x as much in Burma,² and 18 x as much in Mauritania.³_

¹ Levin et al  ² Stanton  ³ Soors et al
If we are successful in increasing the investment in maternal health...

We need to invest wisely to eliminate financial, geographic, and social barriers to quality maternal newborn care, while at the same time, guard against promoting or incentivizing invasive medical procedures without medical indication that drive up health care costs unnecessarily and may contribute to adverse outcomes for mothers and their babies.
Not investing in maternal health, including family planning, brings unwanted consequences

Adversely affects the quality of life for women

- Subjects women to unnecessary risk of death
- Increases possibilities of abortion
- Increases health care costs associated with unwanted pregnancies
- Decreases women’s productivity
- Decreases chance for women to engage in civil society to promote good governance and security

Contributes to high rate of population growth that adversely affects environment, economy, and state stability.

Adversely affects the quality of life for women
“Women are not dying because of diseases we cannot treat . . .

. . . they are dying because societies have yet to make the decision that their lives are worth saving ”

Mahmoud Fathalla