Maternal deaths: Light at the end of the tunnel?

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I have no conflicts of interest
Ending preventable maternal mortality
Outline

• Progress
• Shifting goals
• Collisions
• Alternative views
• Conclusions
Trends in Maternal Mortality: 1990 to 2015
Estimates by WHO, UNICEF, UNFPA, World Bank Group
and the United Nations Population Division
Executive Summary
Progress

• Maternal deaths declined an estimated 532000 in 1990 to 303000 in 2015 (43%).
• MDGs were missed
Maternal Mortality since the 1960s in Malaysia, Sri Lanka and Thailand

7200 new midwives registrations

18,314 new midwives

From 25,040 beds to 10,800 in small community hospitals

Monir Islam
Figure 1. Illustration of maternal deaths reported to the NCCEMD between 1998-2015
Figure 2.3  iMMR from 2005 to 2015
Progress in reducing maternal mortality but acceleration required

Maternal deaths
1990-2030
(estimated and projected)

Maternal mortality ratio dropped by 45% from 380 deaths in 1990 to 210 deaths per 100,000 live births in 2013.

Grand convergence!!

Trends in Maternal Mortality
Figure 1. Maternal mortality ratio (MMR, maternal deaths per 100,000 live births), 2015.

The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

Data Source: World Health Organization
Map Production: Health Statistics and Information Systems (HSI)
World Health Organization

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Inequitable risks of maternal and child deaths across countries.

When?
For women, stillbirths, newborns, the time of highest risk is the same
Periods when lives can be saved

Source: The Lancet Every Newborn series, paper 3
The higher the proportion of deliveries attended by skilled attendant in a country, the lower the country’s maternal mortality ratio.

\[ R^2 = 0.74 \]

Maternal deaths per 1000000 live births

% skilled attendant at delivery

Courtesy WHO, Monir Islam
Move from home births to facility births with attendant problems of quality of care
Causes of maternal mortality world-wide

Indirect causes include pre-existing conditions in pregnancy like diabetes, HIV, malaria, cardiovascular conditions, and obesity.
Comparison of pattern of underlying causes of maternal death from 2011-2015

iMMR/100000 live births

bar chart showing the comparison of pattern of underlying causes of maternal death from 2011-2015.
<table>
<thead>
<tr>
<th>Causes of deaths</th>
<th>% of deaths</th>
<th>Number of deaths</th>
<th>Preventable %</th>
<th>Preventable number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Haemorrhage</td>
<td>25%</td>
<td>134,000</td>
<td>85%</td>
<td>113,900</td>
</tr>
<tr>
<td>Sepsis</td>
<td>15%</td>
<td>80,400</td>
<td>85%</td>
<td>68,340</td>
</tr>
<tr>
<td>Preeclampsia/eclampsia</td>
<td>12%</td>
<td>64,320</td>
<td>85%</td>
<td>54,672</td>
</tr>
<tr>
<td>Obstructed labour</td>
<td>8%</td>
<td>42,880</td>
<td>85%</td>
<td>36,448</td>
</tr>
<tr>
<td>Unsafe abortion</td>
<td>13%</td>
<td>69,680</td>
<td>55%</td>
<td>38,324</td>
</tr>
</tbody>
</table>

Ending preventable maternal mortality
Proportion potentially preventable maternal deaths for each underlying cause (SA 2014-2015)
Distribution of underlying causes of potentially preventable maternal deaths (SA 2014-2015)
iMMR of Potentially preventable deaths over 3 time epochs

2008-2010: 100.0
2011-2013: 92.6
2014-2015: 76.8
Distribution of potentially preventable deaths over 3 time epochs

% of potentially preventable deaths

M&S  | NPRI  | Ec  | Misc. | PRS  | OH  | HT  | AR  | Emb | AC

2008-10
2011-13
2014-15

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As one improves previously apparently unimportant issues come to the fore
Shifting goals
Strategies toward ending preventable maternal mortality (EPMM)
FIGURE 2: MMR reduction at country level

Countries with baseline MMR <420

Countries with baseline MMR >420

ARR: annual rate of reduction.

reduction > 2/3
(ARR ~5.5%)
Box 2: Ultimate goal of EPMM

Guiding principles for EPMM

- Empower women, girls and communities.
- Protect and support the mother–baby dyad.
- Ensure country ownership, leadership and supportive legal, regulatory and financial frameworks.
- Apply a human rights framework to ensure that high-quality reproductive, maternal and newborn health care is available, accessible and acceptable to all who need it.

Cross-cutting actions for EPMM

- Improve metrics, measurement systems and data quality to ensure that all maternal and newborn deaths are counted.
- Allocate adequate resources and effective health care financing.

Five strategic objectives for EPMM

- Address inequities in access to and quality of sexual, reproductive, maternal and newborn health care.
- Ensure universal health coverage for comprehensive sexual, reproductive, maternal and newborn health care.
- Address all causes of maternal mortality, reproductive and maternal morbidities, and related disabilities.
- Strengthen health systems to respond to the needs and priorities of women and girls.
- Ensure accountability to improve quality of care and equity.
Collisions
Political

• Zimbabwe
  – MMR 1990: 168/100000
  – Political upheaval
  – User fees introduced by the World Bank
  – MMR 2009: 725/100000
  – MMR 2010/11: 960/100000
  – Institutional births dropped to 66%
  – District hospitals 26% providing CEmOC

Courtesy Steve Mujanaja
Political

- South Africa
Political

- President Trump
  - 30% reduction in NIH funding (US$5.4bn)

- Brexit?
New diseases

- Ebola
- Obesity
- Metabolic syndrome
- Aging mothers
- Caesarean delivery
Alternative view
(Woman’s perspective)
Disrespect and abuse
Barriers to providing quality maternity care in South Africa. Lambert J, Etsane E, Bergh A-M

Themes identified:
1. Alone, exposed and unsupported (women & care givers)
2. Mutual distrust
3. Paternalistic attitudes of care givers
4. Procedure centered rather than patient centered
5. Normalization of verbal abuse
6. Dissonance between knowledge and practice
7. Professional hierarchy as barrier to decision making and referral
Need innovative ways to improve patient-health care professional interface to get a sustained reduction in maternal mortality
Light at the end of the tunnel?

- Wrong analogy
- Shifting goals
- Inherently we must always be dissatisfied
  - If complacent then we slide and mortality increases
Running up hill

• Running up hill, doesn’t get easier, as you get fitter, you just get faster.

• Preventing maternal deaths doesn’t get easier, as we know more, we just get more adept at preventing deaths.

• But if we relax and we stop or go backwards
Can we achieve the grand convergence?

Yes we can!
Thank you