Supply side barriers to care

Too few, too unskilled, too late

Julia Hussein
Conceptual framework for quality of care

**DEMAND FACTORS**
- Information, counselling
- Promotion, protection of health
- Client-provider interaction

**SUPPLY FACTORS**
- Support to health providers
- Technical competence
- Supplies, equipment
- Continuity of care
- Referral

**Acceptable services** → **Quality of care** → **Accessible, available and comprehensive care** → **Maternal/perinatal morbidity/mortality and/or economic, social**

Adapted: WHO Mother-baby Package 1994
Strategies evaluated: Quality perspective

Ghana

- Removal of user fees
  - Improved financial access
  - Better utilisation
  - Does quality change with increased workload?
  - Reduced maternal, perinatal mortality
  - Is quality good enough?

Indonesia

- Midwife in each village
  - Better utilisation of midwife for birth
  - Early detection and treatment of complications, better referral
  - Are there enough midwives?
  - Is their training sufficient?
  - Are midwives performing?
Methods

Ghana
• Criterion based assessment of clinical notes from 7 hospitals and 1,935 women with complications in 2 regions (Central and Volta)
• Score based criterion assessment of delivery data from 49 health centres (public and private) and 1,268 deliveries in 2 regions
• TRACE (confidential enquiries modification), on sample of 20 hospital maternal deaths

Indonesia
• Midwifery questionnaires on 738 midwives
• Data from National statistics office for size and population of 708 villages
• TRACE applied to investigate 13 cases of severe complications and maternal deaths cared for by village midwife
### Too few: Indonesia: “a midwife in every village”

<table>
<thead>
<tr>
<th>Number of villages assigned provider has responsibility for</th>
<th>Urban Serang &amp; P’glang 78 villages</th>
<th>Rural Serang 318 villages</th>
<th>Rural P’glang 156 villages</th>
<th>Remote P’glang 156 villages</th>
<th>Serang &amp; P’glang 708 villages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 village</td>
<td>94%</td>
<td>71%</td>
<td>63%</td>
<td>24%</td>
<td>61%</td>
</tr>
<tr>
<td>2 villages</td>
<td>6%</td>
<td>28%</td>
<td>34%</td>
<td>37%</td>
<td>29%</td>
</tr>
<tr>
<td>&gt;3 villages</td>
<td>0%</td>
<td>1%</td>
<td>3%</td>
<td>40%</td>
<td>10%</td>
</tr>
<tr>
<td>Resident midwife per 10,000 population</td>
<td>4.8</td>
<td>1.3</td>
<td>1.9</td>
<td>1.3</td>
<td>2.2</td>
</tr>
<tr>
<td>Villages where assigned provider is resident</td>
<td>44%</td>
<td>24%</td>
<td>29%</td>
<td>31%</td>
<td>29%</td>
</tr>
</tbody>
</table>

Too few: Indonesia - villages with no midwives

<table>
<thead>
<tr>
<th>Training Type</th>
<th>Village midwives n=361</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 year pre service training</td>
<td>94%</td>
</tr>
<tr>
<td>3 year pre service training</td>
<td>6%</td>
</tr>
<tr>
<td>Any in service training</td>
<td>94%</td>
</tr>
<tr>
<td>Life saving skills (non clinical 10 days)</td>
<td>76%</td>
</tr>
</tbody>
</table>

Too unskilled: Indonesian village midwives performance

Clinical skills
• Diagnostic skills sufficient to identify urgent referral needs
• Incorrect manoeuvres
• Lack of confidence in obstetric first aid

Contraindicated and unnecessary vaginal examinations were performed and basic assessments of vital signs and contractions were missed.

“…although [the midwife] knew the patient [was] bleeding, she did the internal examination.”

Panel assessment case 1 (near-miss, haemorrhage)

Too unskilled: Does quality of care change with increasing workload in Ghana?

Mean quality of care assessment scores for before and after fee exemption (health centres) n = 1,268 deliveries

Maximum score 44

Deganus, Armar-Klemesu, Ansong Tornui (forthcoming 2008)
Two women who were admitted in good condition, in early labour:

“bleeding, sepsis [after delivery] and PIH were poorly recognised and managed, including unorthodox use of ice packs and no administration of syntocinon. The doctor did not make a tentative diagnosis and did not take charge of management….“  

(confidential enquiry report Ghana July 2006)

“She made poor progress in labour over the next 46 hours but no action was taken. [Eventually] emergency CS was carried out. The surgeon did not appear to be sufficiently competent to handle the [undiagnosed and unanticipated] uterine rupture. The patient died from haemorrhagic shock after the operation without adequate resuscitation and monitoring”

(panel assessment case 407108)
“…because of the pushing I had soiled my pad and so she (nurse midwife) ordered that I should go and dispose of it myself….this was difficult, but I had to crawl to the disposal bin”

“When she (nurse midwife) came and realised the baby was out she asked me why I had not told her….How could I have known that the baby was about to come out?”

D’Ambruoso, Abbey, Hussein (2005)
Too late: substandard care in Ghana

### Median delays in minutes between recognition of complication and operation n=1,125

<table>
<thead>
<tr>
<th>Unplanned Caesarean sections</th>
<th>Before fee exemption</th>
<th>After fee exemption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central</td>
<td>152</td>
<td>147</td>
</tr>
<tr>
<td>Volta</td>
<td>114</td>
<td>110</td>
</tr>
</tbody>
</table>

Townend, Martin, Deganus, Ansong Tornui, Ronsmans, unpublished

- Few partographs (5/13)
- Doctor rarely present when woman in critical condition (5/20)
- Acute resuscitation efforts were poor
- Inappropriate and ineffective drugs (11/20)
- Completed audit forms seldom found (1/20)

“the woman needed a blood transfusion when she was admitted to hospital at 9.00am with retained placenta and haemorrhage, but the hospital had no blood supplies. The patient’s father travelled to another hospital to obtain blood. More delay was experienced when he found out he had to pay for the blood. He returned to his daughter’s hospital at 5.00pm. By this time, the patient had become so weak that blood could not be given. She passed away at 5.30pm with the placenta undelivered. This death was probably directly preventable, had blood been immediately available”.

(case 8, maternal death, haemorrhage),

Measurement of quality of care is complex

“Universal coverage” must be matched by improvements in quality

Need tools for measurement, tools for change

www.immpact-international.org