Performance-based financing (PBF) to accelerate progress towards MDGs 4 and 5: What have we learned?

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Presentation objectives

- Summary of evidence of effectiveness
- Summary of the evidence of the cost, cost-effectiveness and efficiency
- Challenges and future research and learning agenda
Methodology

**145 REFERENCES (LMIC focus)**

- 30 journal articles
- 14 reports and PBF evaluations
- 41 synthesis papers (Cochran and Systematic reviews, working papers, discussion papers)
- 60 other documents and presentations
- Summarized in Excel and will be made available on Countdown, MSH and PMNCH websites

**TYPES OF PBF**

(Where there was a focus)

- CCT 23
- P4P 17
- Health insurance 10
- Contracting 8
- Vouchers 8
- Social franchising 4
- Accreditation 1
- CODA 1
Broad methodological issues

• Imprecise terminology and categorization of PBF types

• PBF focusing on a range of different outputs, outcomes and impact

• Significant number of studies reported positive effects, but few evaluations able to conclusively attribute results to PBF
  - Few experimental design evaluations
  - PBF is often part of broader health reform
  - PBF programs have different components
Map 1: Where has any type of PBF been implemented (LMICs)?
Map 2: Where has PBF been implemented at scale?

Afghanistan  Cambodia  El Salvador  Indonesia  Mongolia  Rwanda  Turkey  
Argentina  Chile  Haiti  Jamaica  Nepal  Senegal  Uruguay  
Brazil  Colombia  Honduras  Madagascar  Nicaragua  Sierra Leone  
Burundi  DRC  India  Mexico  Philippines  Tanzania
Map 3: Where has PBF been rigorously evaluated and shown results that can be attributed to PBF programs?

- Bangladesh
- Cambodia
- Honduras
- Madagascar
- Nepal
- Rwanda
- Uruguay
- Brazil
- Haiti
- India
- Mexico
- Nicaragua
- Senegal
Effect on health outcomes

• Evidence of positive impact on maternal and child health outcomes, but mixed results

• Attribution is an issue

• Examples
  • Brazil Bolsa Familia
  • India JSY
  • Mexico Opportunidades
  • Uruguay PANES CCT

Sources: Cecchini & Madariaga, 2011; Lim et al, 2010; Cecchini & Madariaga, 2011; Amarante et al, 2011
Effect on coverage and utilization

- Significant number of studies reported positive impact on coverage of services
- But results are mixed and attribution an issue
- Most PBF programs have focused on increasing inputs, processes and outputs as opposed to outcomes and impact

**Examples**
- Cambodia contracting
- Haiti PBF for PHC services
- India Chiranjeevi Yojana
- Nepal SDIP
- Rwanda P4P to PHC providers

Effect on quality of care

- Limited evidence of improved quality of care
- Mostly general statements with no quantitative data
- Incentives often linked to quantity, not quality
- Difficult to measure

- Examples
  - Rwanda P4P to PHC providers (Basinga et al, 2011)
Effect on equity

- Evidence of successful targeting of the poor and reduced catastrophic health spending

- Examples
  - Brazil Bolsa Familia
  - Mexico PROGRESA/Oportunidades
  - Turkey Green Card Program for the Poor
  - Uruguay PANES CCT

Map 4: Cost and cost-effectiveness

70 countries where PBF has been implemented

16 countries where we have any cost data

Only 3 full economic evaluations

Argentina
Cambodia
DRC
Egypt
Haiti
Honduras
India
Indonesia
Jamaica
Malawi
Mexico
Nicaragua
Pakistan
Rwanda
Uganda
Zimbabwe
Cost elements, distribution and issues.

**Six cost elements**

1. Planning and design
2. Technical assistance
3. Health systems preparation & systems strengthening
4. Incentives
5. Sensitization, mobilization, public/provider education
6. Scheme management and administration and supervision

**Issues:**

1. Donor dependency (with exceptions)
2. High “overhead” and startup costs
3. Cost of scale and sustainability not adequately examined

Source: Future Health Systems “Understanding the incremental cost of increasing access to maternal health services: Perspectives from a voucher scheme in Eastern Uganda” C Mayora, E Ekirapa-Kiracho, F Ssengooba, SO Baine, O Okui
What caused the effect?

Evidence of interactions between elements

<table>
<thead>
<tr>
<th>Cost element</th>
<th>Percent of total cost</th>
<th>Attributable effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical assistance</td>
<td>39%</td>
<td>35%</td>
</tr>
<tr>
<td>Incentive</td>
<td>6%</td>
<td>39%</td>
</tr>
<tr>
<td>Combined TA and incentive</td>
<td>45%</td>
<td>87%</td>
</tr>
</tbody>
</table>

Ref: Zeng, et al 2012
Is PBF cost effective? More efficient?

- Few cost effectiveness, cost efficiency or cost benefit studies.
- Some notable exceptions, e.g., Nicaragua’s STI voucher scheme
- Few studies compare different PBF types across different settings with comparable cost categories.
- Where studies exist, results are mixed.

**Nicaragua STI voucher program**  
Cost effectiveness comparison

<table>
<thead>
<tr>
<th></th>
<th>Cost per case treated</th>
<th>Cost per case cured</th>
</tr>
</thead>
<tbody>
<tr>
<td>With voucher program</td>
<td>$ 41</td>
<td>$ 118</td>
</tr>
<tr>
<td>Without voucher program</td>
<td>$ 12</td>
<td>$ 200</td>
</tr>
</tbody>
</table>
PBF-induced inefficiencies deserve more study

• Gaming by providers
• Cherry picking
• Over production
• Reduced intrinsic motivation
• Provider substitution
• Ineffective incentive induced provider behavior
• Threshold effects
• Undesirable outcomes if incentives set too high, e.g., increased pregnancies in India and Honduras
• Heavy donor reliance. Scale and sustainability in question.
Conclusions and key messages

• Several notable success stories and encouraging progress
• Inadequately nuanced nomenclature and categorization
• Few rigorous impact evaluations
• Some tantalizing cost data but few full economic, cost or cost effectiveness analyses
• Hard to tease out which program element (or combination) is responsible for the observed effects
• Heavy reliance on donor funding risks scale and sustainability
• PBF programs themselves may be a source of inefficiencies
Research, evaluation and learning agenda

- Incorporate more rigorous evaluation methods during PBF design and implementation
- More economic evaluations (cost, cost-effectiveness, efficiency, financial sustainability, opportunity costs, etc.).
- Determine ways of reducing or eliminating PBF caused inefficiencies
- Evaluations to answer the questions:
  - “Under what conditions is a given type of PBF more cost effective?”
  - “Which elements of PBF programs are responsible for how much of the effect?”
  - How to transition from donor financing to local financing
Thank you