Malaria in Pregnancy

An analysis of achievements and limitations to meeting Women’s comprehensive needs during pregnancy

Istanbul
Imperial College London
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ODA for maternal and newborn health for 68 Countdown priority countries, 2008

Source: The Lancet 2010; 376:1485-1496 (DOI:10.1016/S0140-6736(10)61302-5)
ODA for maternal and newborn health per livebirth vs maternal mortality for 68 Countdown priority countries, 2008

The Lancet 2010; 376:1485-1496
Equity of funding for malaria control

Source: Hay, Gething, Atun Snow. The Lancet 2010; 376:1409-1416 (DOI:10.1016/S0140-6736(10)61340-2)
Adequacy of malaria funding

Global Fund Expenditures by Service Delivery Area for Malaria (cumulative, by 2008 reporting cycle)

- **Prevention, 42%**
  - Insecticide-treated nets (ITNs), 33%
  - Home-based management of malaria, 1%
  - Diagnosis, 2%
  - Other preventive activities, 3%
  - Vector control (other than ITNs), 4%
  - Malaria prevention during pregnancy, 2%

- **Treatment, 31%**
  - Prompt, effective anti-malarial treatment, 28%
  - Health systems strengthening, 14%

**Source:** Global Fund, unpublished Enhanced Financial Reporting data, 2008
Health innovations diffuse very slowly

• 1601: James Lancaster demonstrates lemon juice cures scurvy
• 1749: Repeated by Lind
  – 1753 “A treatise of the scurvy”
• 1795: Royal Navy acts on evidence
• 1865: Merchant Navy acts on evidence
Poor diffusion of innovation

Use of antimalarial drugs in children <5

Source: DHS, MICS and MIS surveys conducted 2006-2008

Slide source: WHO/GMP, WMR 2009
Coverage for interventions across the care continuum: 68 priority countries (2000-06)
Antenatal coverage and PMTCT uptake

Figure 3.12 Preventing mother-to-child transmission

Coverage of antenatal care services and services for preventing mother-to-child transmission among women living with HIV in high-prevalence countries, 2010

Source: WHO and UN Statistics Division

PMTCT coverage, ANC coverage and number of HIV+ pregnant women (bubble size)

1 Angola
2 Botswana
3 Burundi
4 Cameroon
5 Chad
6 Côte d'Ivoire
7 D.R. Congo
8 Ethiopia
9 Ghana
10 Kenya
11 Lesotho
12 Mozambique
13 Nigeria
14 South Africa
15 Uganda
16 Zambia

Source: WHO and UN Statistics Division in UNAIDS Global Report 2010
Proportion of livebirths attended by skilled personnel in 34 Countdown countries with nationally representative measurements around 2000 and around 2008
Proportion of women attending antenatal care receiving second dose of IPTp (2010)

Source: WHO WMR 2011
Proportion of all pregnant women receiving the second dose of IPTp (2009-11)

Source: WHO WMR 2011
Is integrated care delivery the solution to address poor uptake of innovations?
Potential integration strategies within and across care domains

- **a. Unintegrated**
  - Primary
  - Community
  - Secondary

- **b. Partial integration**
  - Primary
  - Community
  - Secondary

- **c. Horizontal or vertical integration**
  - Primary
  - Community
  - Secondary

## Integrated delivery models – HNP interventions

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<tr>
<th>Programme</th>
<th>Intervention</th>
<th>Outcome</th>
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<tbody>
<tr>
<td>PRISM-E (Bartels 2004, Krahn 2006, Oslin 2006)</td>
<td>Integrated delivery of mental health and/or substance abuse services for elderly in PHC setting</td>
<td>Improved patient engagement</td>
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<tr>
<td>Mental health provision in PHC (Gater 1997, Watts 2007)</td>
<td>Depression and schizophrenia treatment integrated into PHC</td>
<td>Improved access and treatment, resources more effectively used</td>
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Integration of Targeted Health, Nutrition and Population Interventions: Cochrane+ Review


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Fully integrated | Partially integrated | Not integrated | Unknown
---|---|---|---

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Dengue: Cuba (Toledo Roman2007)
Malari: Columbia (Rojas2001)
Schistosomiasis control: Brazil (Filho1992), Burundi (Engels1993, 1995), Cameroon (Gnee11996), China (Stein1993), Saudi Arabia (Agost1997, Jarallah1993), Uganda (Kabelereine2006)
Leprosy: India (Rao2002, Thakar2003), Sri Lanka (Kasturiratnach2002)
Nutrition: Peru (Gress2000a, Lechigo2000b, Lopez de Romana2006), Bangladesh (Hossen2006), Various (Delclcor2004)
Immunisation: Sierra Leone (Antin1994), India (Boni2003), Macedonia (Kap2001)
HIV/AIDS & STD services: Haiti (Peel2003)
Integrated delivery of PMTCT: Cochrane Review

One study

- Integrating HIV testing and NVP adherence assessment at labour ward resulted in substantial increase in mother-infant NVP coverage.

- No research assessing the impact on coverage of integrating with other perinatal PMTCT interventions
Adoption of innovations: global health systems at crossroads:
Key barrier (1): linear view of innovation adoption

“I think you should be more explicit here in step two.”
Key barrier (2): limited evidence

Methodological challenges in generating evidence

1. What works in practice and what has worked less well
2. Optimal delivery models?
3. Sources of resistance to policy translation
4. Scale and learning effects?

Suboptimal solutions implemented
Key barrier (3): imbalance in health and financing policies

Industrial policies encourage technology push, but health systems constrain innovation:

– Not enough emphasis on demand side factors
– Inadequate incentives and downstream rewards for adoption
– Inefficiency/ineffectiveness tolerated
– No incentives for innovation

Key barrier (4): institutional logic

- Resistance to innovation
- Overdue emphasis on technology innovation
Technology overdrive

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Diffusion of innovations in complex systems

A systems approach to innovation

1. Problem perception
   - Burden
   - Necessity and urgency

2. Innovation
   - Complexity
   - Scalability

3. Adoption System
   - Receptivity
   - Opportunity

4. Health System
   - Feasibility

5. Context
   - Desirability
   - Logic
Thank you