Integrated Approaches for the Prevention and Control of Pneumonia and Diarrhoea

Rotavirus Symposium 2014

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WHO/HQ
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Ending Preventable Child Deaths from Pneumonia and Diarrhoea by 2025

The integrated Global Action Plan for Pneumonia and Diarrhoea (GAPPD)
Effective interventions are available

<table>
<thead>
<tr>
<th>Postnatal (newborn)</th>
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<tbody>
<tr>
<td>Immediate thermal care</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Initiation of exclusive breastfeeding (within first hour)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Hygienic cord and skin care</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Neonatal resuscitation with bag and mask (professional health worker)</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Case management of neonatal sepsis, meningitis and pneumonia</td>
<td>✓</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Kangaroo mother care for preterm and for less than 2000g babies</td>
<td>✓</td>
<td>-</td>
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</tr>
<tr>
<td>Management of newborns with jaundice</td>
<td>✓</td>
<td>✓</td>
<td>-</td>
</tr>
<tr>
<td>Surfactant to prevent respiratory distress syndrome in preterm babies</td>
<td>✓</td>
<td>-</td>
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</tbody>
</table>

| Continuous positive airway pressure (CPAP) to manage babies with respiratory distress syndrome |   |   |   |
| Extra support for feeding small and preterm babies | ✓ | ✓ | - |
| Presumptive antibiotic therapy for newborns at risk of bacterial infections | ✓ | - | - |

<table>
<thead>
<tr>
<th>Childbirth</th>
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<tbody>
<tr>
<td>Extra support</td>
<td></td>
<td></td>
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<tr>
<td>Presumptive a</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Active management of third stage of labour to prevent postpartum haemorrhage</td>
<td>✓</td>
<td>✓</td>
<td>-</td>
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<tr>
<td>Exclusive area</td>
<td>✓</td>
<td>✓</td>
<td>-</td>
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<tr>
<td>Management of postpartum haemorrhage (e.g. uterotonic, uterine massage)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Continued care</td>
<td></td>
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<tr>
<td>Caesarean section for maternal foetal indication</td>
<td></td>
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<tr>
<td>Prevention and control of maternal infections</td>
<td></td>
<td></td>
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<tr>
<td>Prophylactic antibiotics for caesarean section</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Vitamin A supplementation</td>
<td></td>
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</table>

| Comprehension                                 |   |   |   |
| Family planning                               | ✓ | ✓ | ✓ |
| Routine immunity                              | ✓ | ✓ | - |
| Prevent and treat maternal anemia             | ✓ | ✓ | - |
| Management of normal newborns                 | ✓ | ✓ | - |
| Screening and initiation or continue antiretroviral therapy for HIV | ✓ | ✓ | - |

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<thead>
<tr>
<th>Postnatal (mother)</th>
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| Case management                              |   |   |   |
| Immediate thermal care                       | ✓ | ✓ | ✓ |
| Initiation of exclusive breastfeeding (within first hour) | ✓ | ✓ | ✓ |
| Hygienic cord and skin care                  | ✓ | ✓ | ✓ |
| Neonatal resuscitation with bag and mask (professional health worker) | ✓ | ✓ | - |
| Case management of neonatal sepsis, meningitis and pneumonia | ✓ | - | - |
| Kangaroo mother care for preterm and for less than 2000g babies | ✓ | - | - |
| Management of newborns with jaundice         | ✓ | - | - |
| Surfactant to prevent respiratory distress syndrome in preterm babies | ✓ | - | - |
| Continuous positive airway pressure (CPAP) to manage babies with respiratory distress syndrome | ✓ | - | - |
| Extra support for feeding small and preterm babies | ✓ | - | - |
| Presumptive antibiotic therapy for newborns at risk of bacterial infections | ✓ | - | - |
Coverage of core interventions remains low

Source: UNICEF’s State of the World’s Children 2013
Multiple initiatives affirm commitment

Country leadership & Implementation

Key initiatives in support of Every Woman Every Child

- Family Planning 2020
- UN Commission on Life Saving Commodities
- A Promise Renewed

Global action plans: Every Newborn, Scaling up Nutrition, GAPPD, DoV/GVAP, WASH, others

Global mechanisms for coordinated action and advocacy

- PMNCH
- H4+
- GAVI
- RMNCH Fund
- MDG Alliance
- Innovation Working Group
- Commission on Information and Accountability
  Independent Expert Review Group
New Opportunities

- Vaccines for **preventing** pneumonia and diarrhoea
  - Hib, pneumococcal conjugate vaccines
  - Rotavirus vaccines

- Improvements in **case management**
  - Low osmolarity ORS
  - Zinc supplementation
  - Short course antibiotics for non-severe pneumonia
  - Oral amoxicillin for severe pneumonia

- New evidence on other **preventive** modalities
  - Reduction of indoor air pollution
  - Hand washing
The need for a multi-pronged approach

- Pneumonia and diarrhoea caused by multiple pathogens - **no single intervention** will address entirety of the problem.

- **Vaccines alone do not protect against all causes** of pneumonia and diarrhoea.

- **Multiple interventions of proven effectiveness exist** - complementary but not implemented in a coordinated fashion.

- Establishing **better coordination between existing programmes** can lead to synergies and efficiencies that will maximize the benefits of the individual interventions.
Regional GAPPD Consultations for Coordinated Approaches

- 2011/12 African Region
- 2012 South-East Asian Region
- 2012 Eastern Mediterranean Region
- 2013 European Region
The Integrated Global Action Plan for the Prevention and Control of Pneumonia and Diarrhoea (GAPPD)
Purpose

- Provide general framework and guidance to countries and partners for scaling up interventions in coordinated way
- Propose action steps and programme activities to move forward efficiently
- Build broad coalition of global and national policy-makers, planners, donor agencies and civil society
Vision

- Ending preventable child deaths from pneumonia and diarrhoea – 2025
Goals for 2025

For children under 5 years of age

- reduce mortality from pneumonia to fewer than 3 per 1000 live births;
- reduce mortality from diarrhoea to fewer than 1 per 1000 live births;
- reduce the incidence of severe pneumonia by 75% compared to 2010 levels;
- reduce the incidence of severe diarrhoea by 75% compared to 2010 levels;
- reduce by 40% the global number who are stunted compared to 2010 levels.
Coverage targets for 2025

- 90% full-dose coverage of each relevant vaccine (with 80% coverage in every district);
- 90% access to appropriate pneumonia and diarrhoea case management (with 80% coverage in every district);
- at least 50% coverage of exclusive breastfeeding during the first 6 months of life;
- virtual elimination of paediatric HIV.
Coverage targets for 2030

- universal access to basic drinking-water in health care facilities and homes;
- universal access to adequate sanitation in health care facilities by 2030 and in homes by 2040;
- universal access to hand-washing facilities (water and soap) in health care facilities and homes;
- universal access to clean and safe energy technologies in health care facilities and homes.
### Strategies for preventing and treating pneumonia

- **Protection**
  - Breastfeeding promotion
  - Hand washing promotion
  - Zinc supplementation
  - Adequate nutrition
  - Reduce indoor air pollution

- **Prevention**
  - Vaccination
    - New: Pneumococcal, Hib
    - Routine: Measles, pertussis
  - HIV prevention

- **Treatment**
  - Improve care seeking behaviour
  - Community case management
  - Health facility case management
  - Antibiotics

### Strategies for preventing and treating diarrhoea

- **Protection**
  - Breastfeeding promotion
  - Hand washing promotion
  - Vitamin A and Zinc supplementation
  - Adequate nutrition
  - Safe water and sanitation

- **Prevention**
  - Vaccination
    - New: Rotavirus
    - Routine: Measles
  - HIV prevention

- **Treatment**
  - Improve care seeking behaviour
  - Community case management
  - Health facility case management
  - Low-osmolarity ORS + Zinc

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**Many interventions and treatment strategies are identical**
Strategies for preventing and treating pneumonia and diarrhoea

**Diarrhoea**
- Vitamin A supplementation
- Vaccination: rotavirus
- Safe water & improved sanitation
- Los-osmolarity ORS, zinc & continued feeding

**Protect**
- Breastfeeding promotion & support
- Adequate complementary feeding

**Prevent**
- Measles Vaccination
- Handwashing with soap
- Prevention of HIV

**Treat**
- Improved care seeking behaviour and referral
- Improved case management at community and health facility levels
- Continued feeding

**Pneumonia**
- Vaccination (PCV, Hib, pertussis)
- Reduced household air pollution
- Antibiotics for pneumonia
- Oxygen therapy (where indicated)

Source: Adapted PATH: Tackling the deadliest diseases for the world’s poorest children.
Example: Bangladesh
Moulvibazar MAPPD 2014-2015

- Official launch of MAPPD in 2014
- PCV vaccine introduction Oct 2014 with broad child health messages
- Rotavirus vaccine introduction in 2016?
- Coordinate approaches with activities in 3 other districts
- Intensified comprehensive training and supervision of HCW
- Functional integration of services at the district level:
  - Comprehensive one-stop services:
    - Immunization
    - Treatment / Quality of care
    - Breastfeeding / Nutrition
  - Water and Sanitation (hand washing with soap)
  - District supply chains
- Coordination with NGOs, private health care sector
- Monitoring and evaluation and wide sharing of experiences
Example: Zambia
Mazabuka MAPPD 2013-2015

- Scale up capacity for delivery of quality care
  - Intensified training of health care and community health workers
  - Mentorship and supervision

- Ensure availability of essential medicines (e.g. zinc, ORS)

- National launch of rotavirus vaccine in the district in Nov 2013 (PCV in July 2013) with promotion of broad child health messages

- Improve Water, Sanitation and Hygiene (e.g. health facilities as model for WASH)

- Involve private health care sector (e.g. sugar company clinics)

- Establish appropriate monitoring and evaluation of MAPPD

- Share lessons learned widely
Example: India

- Bihar
- Madhya Pradesh
- Rajasthan
- Uttar Pradesh
India Inter-State Initiative for the Control of Pneumonia and Diarrhoea

- Use focused RMNCH partner support in high priority districts in Bihar, MP, Rajasthan, UP to focus on pneumonia and diarrhoea control
- National interstate meeting in Q3/Q4 2014
- Prepare detailed state-level and priority district plans for the control of pneumonia and diarrhoea
- Focus e.g. on refresher trainings for HCWs, improved supervision, supply chain and logistics integration, joint monitoring and evaluation
- Share lessons learned with other states and districts in India
**Example:**
**Missed opportunities for vaccination, India**

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<tr>
<td><strong>DTP3 coverage (2013)</strong></td>
<td>72%</td>
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<tr>
<td>Number that received DTP1</td>
<td>21,553,381</td>
</tr>
<tr>
<td>Number that received DTP3</td>
<td>17,634,584</td>
</tr>
<tr>
<td>Number that dropped out (DTP1-DTP3)</td>
<td>3,918,796</td>
</tr>
<tr>
<td>% that had an MCV1 opportunity to be vaccinated</td>
<td>26%</td>
</tr>
<tr>
<td>If MCV1 opportunity taken, additional infants vaccinated</td>
<td>1,006,483</td>
</tr>
<tr>
<td><strong>Potential DTP3 coverage if MCV1 opportunity taken</strong></td>
<td>76%</td>
</tr>
<tr>
<td>% that had a treatment opportunity to be vaccinated</td>
<td>74%</td>
</tr>
<tr>
<td>If treatment opportunity taken, additional infants vaccinated</td>
<td>2,895,287</td>
</tr>
<tr>
<td><strong>Potential DTP3 coverage if treatment opportunity taken</strong></td>
<td>84%</td>
</tr>
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Integrated Approaches: Lessons Learned

- Not a new project or programme, but a framework for strengthening coordination of existing interventions
- Abundant need for coordination within ministries, within agencies and between programmes and partners
- Need for joint advocacy platform for maternal, child and adolescent health
- Changing behaviours takes time
Gavi’s role in fostering Integrated Approaches

Gavi 4.0 Strategy (2016-2020)

- Develop Programme Area for integrated VPD control approaches
- Include integrated VPD control activities in all Gavi country applications and annual reports
- Support development of national plans for integrated VPD control
- Coordinate supply of vaccines with ORS, amoxicillin, zinc
- Advocacy and communication on integrated VPD control at all RV, PCV, HPV vaccine launches

- Win-win situation:
  - Increase vaccine impact through coordination with other interventions
  - Anti-anti-vaccination mechanism
  - Integrated training and supervision of health care workers
  - Integrated monitoring and evaluation (coverage, morbidity, mortality)
Traditional integration with EPI
Towards a more comprehensive approach