MSF: Vaccination priorities and challenges for vaccine access

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Overview of the presentation

• MSF vaccination background
• MSF vaccination activities over the years
• MSF vaccine supply
• Challenges for vaccine access
• 5 operational centres and 19 sections
• 66 countries (direct and remote activities) vs 72 in 2012
• 699 projects, 215 (57%) in unstable contexts
• International HR: 2 600
• National HR: 26 500
• Expenses (million €): 612
• ± 90% funding private, non-governmental sources
**Emergencies**

- Complete outbreak response, including vaccination if required
- Humanitarian emergencies

**Routine vaccination**

- Support or supplemental in crisis-affected situations
- Vulnerable groups: malnourished children, HIV+ patients

*Tailored according to situation*
• **Vaccination policy since 2007**
  – Vaccinate with more antigens
  – Vaccinate more susceptible: extend targeted age group for vaccination according needs (catch up – high risk)
  – Implement alternative strategies in order to decrease missed opportunities
  – Address vaccination in specific groups – including HIV+, malnourished children, war/natural disaster

• **MSF priority since 2013**
  – Targeting 4 countries facing huge needs:
    • Objectives: Increase access to vaccination including catch up > 11 months and decrease missed opportunities
    • Activities define country per country according needs and targeted
  – Extend vaccines package proposed in emergencies, tailored according risk evaluation (new WHO recommendations)
## Overview MSF’s vaccination activities

### 2008-2013 evolution

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of projects</td>
<td>309</td>
<td>285</td>
<td>434</td>
<td>393</td>
<td>390</td>
<td>387</td>
</tr>
<tr>
<td>N° of projects reporting vaccination</td>
<td>55</td>
<td>143</td>
<td>135</td>
<td>121</td>
<td>135</td>
<td>130</td>
</tr>
<tr>
<td>% of projects reporting vaccination</td>
<td>18%</td>
<td>50%</td>
<td>31%</td>
<td>31%</td>
<td>35%</td>
<td>34%</td>
</tr>
<tr>
<td>Total doses routine vaccination</td>
<td>1 229 897</td>
<td>1 200 894</td>
<td>1 206 712</td>
<td>1 595 883</td>
<td>1 707 794</td>
<td>2 264 553</td>
</tr>
<tr>
<td>Total doses in response to epidemics</td>
<td>1 817 957</td>
<td>9 530 871</td>
<td>5 630 285</td>
<td>4 970 623</td>
<td>2 368 839</td>
<td>3 928 079</td>
</tr>
<tr>
<td>Total doses preventive campaigns</td>
<td></td>
<td></td>
<td></td>
<td>76 064</td>
<td>79 838</td>
<td>455 037</td>
</tr>
<tr>
<td>Total doses post-exposure prophylaxis</td>
<td>18 240</td>
<td>31 688</td>
<td>50 248</td>
<td>66 466</td>
<td>61 413</td>
<td>77 285</td>
</tr>
<tr>
<td>Total doses administered</td>
<td>3 066 094</td>
<td>10 763 453</td>
<td>6 887 245</td>
<td>6 709 036</td>
<td>4 217 884</td>
<td>6 724 954</td>
</tr>
</tbody>
</table>
MSF vaccination activities

Routine support

![Chart showing MSF vaccination activities over time and by country with bars representing different services.]
### Vaccine 2013

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Doses</th>
<th>Where</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCV</td>
<td>3,056,686</td>
<td>DRC, Chad, Sudan, Nigeria, South Sudan, Syria, Niger, Iraq, CAR</td>
</tr>
<tr>
<td>YF</td>
<td>715,932</td>
<td>South Sudan, Chad</td>
</tr>
<tr>
<td>MenA</td>
<td>113,633</td>
<td>South Sudan</td>
</tr>
<tr>
<td>Penta</td>
<td>17,587</td>
<td>South Sudan</td>
</tr>
<tr>
<td>Polio</td>
<td>24,241</td>
<td>South Sudan, CAR</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>3,928,079</strong></td>
<td></td>
</tr>
</tbody>
</table>
**Vaccines 2013**

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Doses</th>
<th>Where</th>
</tr>
</thead>
<tbody>
<tr>
<td>OCV</td>
<td>321895</td>
<td>South Sudan, DRC</td>
</tr>
<tr>
<td>MCV</td>
<td>69932</td>
<td>DRC, Philippines, Chad, Burkina Faso, Syria</td>
</tr>
<tr>
<td>MenA</td>
<td>26801</td>
<td>Chad</td>
</tr>
<tr>
<td>Penta</td>
<td>15129</td>
<td>South Sudan, Niger</td>
</tr>
<tr>
<td>OPV</td>
<td>11175</td>
<td>Philippines, Syria, South Sudan</td>
</tr>
<tr>
<td>PCV</td>
<td>10105</td>
<td>South Sudan</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>455 037</strong></td>
<td></td>
</tr>
</tbody>
</table>

**MSF vaccination activities**

**Pre-emptive vaccination**
Operational challenges

• **Routine**
  – Catch-up implementation
  – Push for use / support the introduction: PCV, MenA Conjugate, Rotavirus, Hep B birth dose
  – Document and communicate

• **Pre-emptive campaign**
  – Extended emergency package according risk evaluation: feasibility at the early stage and cost
  – Cholera in endemic zones

• **Logistic constraints**
  • Cold chain requirements
  • Waste management

• **Future when when vaccines will be prequalified by WHO**
  • Hepatitis E, Malaria, Dengue, .....


MSF vaccine supply

2013 vaccine supply split

**SUPPLIER**
- MSF procurement centres
  - APU
  - MSF Supply
  - MSF Logistique

**CORE ACTIVITY**
- Epidemic Response
- Crisis situation
- Routine vaccination gap filling

**QUANTITY**
- 0
- 2000000
- 4000000
- 6000000
- 3900000
- 2800000

= 6,7 mln doses administered

**MoH**
MSF Procurement Centres

Approved sources according to MSF Validation Scheme:
- WHO PQ
- MA in High Regulated Country

GDP inspected by National Medicines Agency AFMPS, ANSM, MEB

**MANUFACTURER**

Transport validation:
- Internal
- WHO Guidelines Int shipping of vaccines

**MSF PROCUREMENT CENTRES**

Transport validation:
- Outsourced, 2< 72h <8°C
+ T monitoring devices (WHO PQS)

**COUNTRIES**
MSF vaccine supply

International set-up

MANUFACTURER

- Data consolidation
- Negotiation
- Supply strategy
- Technical questions

FOCAL POINT within MSF and for manufacturers

MSF Supply

Storage activity
PO and deliveries
Delivery to the countries

COUNTRIES

APV

MSF Logistique
MSF vaccine supply

Supply Challenges

MANUFACTURER  ○ ACCESS
- Price
- Availability (absolute and MOQ)

INVENTORY MANAGEMENT

FORECASTS

Impredictibility of activities
Target age group broader than EPI
Fluctuating availability through MoH

Fluctuating demand from MSF operations

COUNTRIES

MSF PROCUREMENT CENTERS
MSF vaccine supply

2013 Int’ Supply Figures

36 different vaccines delivered
3.9 mln doses

- 58% MSF Proc. Centers

Number of doses

- 429100 TT
- 330325 Cholera
- 267700 OPV
- 235000 Penta
- 400015 Others

Measles 2251000
MSF vaccine supply
2008-2013 supply evolution

Doses, Measles included

- 2013
- 2012
- 2011
- 2010
- 2009
- 2008

0 2000000 4000000 6000000 8000000 10000000 12000000

MEASLES
Other vaccines
MSF vaccine supply
2008-2013 supply evolution

Doses, without Measles

- MENINGITIS A + C
- MENINGITE A CONJUGATE
- TT
- OPV
- ORAL CHOLERA
- MENINGITIS A + C + W135
- VACCINE DPT / HEPATITIS B / Hib
- HEPATITIS B
- Others
Engaging with industry to improve access

Diseases vaccinated against

Vaccine doses per child (#) [assuming receives vx listed above]

Vaccine volume per fully immunized child (cm$^3$)

Immunization cost per child ($ [including delivery costs])

Age groups targeted for immunization

<table>
<thead>
<tr>
<th>Age groups targeted for immunization</th>
<th>1980s realities</th>
<th>2010 and beyond realities</th>
</tr>
</thead>
</table>

Affordability: price is concern, increased manufacturer base needed

- Price of new vaccines (PCV, rota, HPV) unaffordable for MSF
- Lowest global price (Gavi) has increased >2,700% in past decade
- Duopoly in new vaccines hinders price declines
Multiple manufacturers needed to stimulate competition

- MSF Access Campaign learning from companies the challenges to product development & market entry:
  - role of IP in product development
  - regulatory challenges
  - market predictability

Affordability: price is concern, increased manufacturer base needed
Field operations need vaccines with...

- Heat and freeze stability
- Simplified administration
- Fewer doses
- Reduced volume

What preferential international procurement strategy would incentivize your investment in adapted products?

- greater awards to thermostable vaccines?
- premiums on better adapted products?
Thank you
Merci