Experience from implementing Controlled Temperature Chain (CTC) approach during Men-A Campaign 28 Nov to 7 Dec 2014

Landoh D. Essoya
Bafei T. Justin
Togo
Background

Togo

- Total pop in 2014 = 6614217
- Target pop (1 to 29 years) = 70%
- Nb of health regions = 6
- Nb of districts = 40
- Nb of districts at risk = 28
- Climate = tropical
- Average T° = 36°C
Background
<table>
<thead>
<tr>
<th>Health regions</th>
<th>Nb of Districts</th>
<th>Nb of districts with CTC</th>
<th>Target pop in non CTC Districts</th>
<th>Target Pop in CTC Districts</th>
<th>Total target Pop</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plateaux</td>
<td>12</td>
<td>4</td>
<td>716 013</td>
<td>346 899</td>
<td>1 062 912</td>
</tr>
<tr>
<td>Centrale</td>
<td>4</td>
<td>2</td>
<td>283 322</td>
<td>225 382</td>
<td>508 704</td>
</tr>
<tr>
<td>Kara</td>
<td>7</td>
<td>2</td>
<td>372 848</td>
<td>166 856</td>
<td>539 704</td>
</tr>
<tr>
<td>Savanes</td>
<td>5</td>
<td>2</td>
<td>376 566</td>
<td>266 303</td>
<td>642 869</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>28</strong></td>
<td><strong>10</strong></td>
<td><strong>1 748 748</strong></td>
<td><strong>1 005 440</strong></td>
<td><strong>2 754 189</strong></td>
</tr>
</tbody>
</table>
CTC Scenarios

• 3 scenarios were used in the CTC districts

  – Scenario 1: was applicable to health centers without cold chain, but located close to the district center. District has a low capacity to produce ice packs;
    • CTC begins at the district level

  – Scenario 2: was appropriate for health facilities without cold chain, but the District has a good capacity to produce ice packs
    • CTC starts at the health center

  – Scenario 3: was applicable in health facilities with a functional cold chain.
    • CTC starts at the health center
Training and planning

• Preparation process and microplanning have been organized at all levels with the support of WHO, GAVI, UNICEF

• Each CTC district determined the scenarios to be implemented in their respective health facilities

• Stakeholders were trained at all levels on the use of the MenAfriVac vials as well as the application of the CTC strategy
Coordination

• National organization committee in charge of the overall campaign coordination

  – Technical sub-committee: in charge of producing guidelines and tools to be used for the campaign

  – Logistic sub-committee: in charge of planning, implementation and follow up of logistics during the campaign

  – Communication sub-committee: in charge of social mobilization

  – Pharmacovigilance sub-committee: in charge of planning and surveillance of adverse events following vaccination

• AEFI Expert committee responsible for review and classification of AEFI notified

• Coordination committees were established at regional and district level
Implementation

• Strategies
  – Fixe poste (60%)
  – Advance poste (30%)
  – Mobile (10%)

• CTC Scenarios
  – Scenario 1 : 24 health facilities (14.3%)
  – Scenario 2 : 43 health facilities (25.6%)
  – Scenario 3 : 101 health facilities (60.1%)
CTC Supervision & Partnership

• Supervision was conducted by
  – Supervisors from national level
  – Supervisors from regional level
  – Supervisors from District level
  – Supervisors from Health facilities

• Technical & Financial support from partners
  – WHO/HQ/AFRO/IST/Country office
  – UNICEF
  – GAVI
Monitoring & Evaluation

- Daily data collection, data analysis and transmission was organized at each level

- Coordination meetings were held at each level during the campaign period

- Rapid assessment of the vaccine coverage was organized at the end of the campaign in all districts

- External vaccine coverage survey has been conducted by a national consultant in March 2015
Caimpagn launch

President
Caimpagn launch
Results: MenA Vaccine coverage

<table>
<thead>
<tr>
<th>Health Regions</th>
<th>Admin Vacc Cov</th>
<th>Rapide Evaluation</th>
<th>Survey Vac Cov</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plateaux</td>
<td>100.1</td>
<td>97.0</td>
<td>97.1</td>
</tr>
<tr>
<td>Centrale</td>
<td>102.0</td>
<td>98.2</td>
<td>98.8</td>
</tr>
<tr>
<td>Kara</td>
<td>106.3</td>
<td>98.8</td>
<td>98.6</td>
</tr>
<tr>
<td>Savanes</td>
<td>102.5</td>
<td>98.3</td>
<td>98.2</td>
</tr>
<tr>
<td>Total général</td>
<td>102.2</td>
<td>98.0</td>
<td>98.1</td>
</tr>
</tbody>
</table>
Results: CTC compared to non-CTC

- Admin Coverage:
  - CTC: 102.8
  - Non CTC: 101.9

- Survey Vac Coverage:
  - CTC: 97.8
  - Non CTC: 98.3
## Supplies management

<table>
<thead>
<tr>
<th></th>
<th>Distributed to regions</th>
<th></th>
<th>Centrale</th>
<th>Plateaux</th>
<th>Kara</th>
<th>Savanes</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MenAfrivac Vaccine</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planned</td>
<td>2 981 000</td>
<td>Received</td>
<td>2 981 000</td>
<td>488 700</td>
<td>1 193 200</td>
<td>603 600</td>
<td>669 950</td>
</tr>
<tr>
<td>Diluent</td>
<td>2 981 000</td>
<td>2 981 000</td>
<td>488 700</td>
<td>1 193 200</td>
<td>603 600</td>
<td>669 950</td>
<td>2 955 450</td>
</tr>
<tr>
<td><strong>Peak Threshold Temperature Indicator</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1000</td>
<td>1090</td>
<td>203</td>
<td>461</td>
<td>179</td>
<td>238</td>
<td>1 081</td>
</tr>
<tr>
<td><strong>ADS 0,5 ml</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planned</td>
<td>2 954 000</td>
<td>Recomb. Syr. 5 ml</td>
<td>3 006 300</td>
<td>488 700</td>
<td>1 193 200</td>
<td>603 600</td>
<td>669 950</td>
</tr>
<tr>
<td>Recon. Syr. 5 ml</td>
<td></td>
<td></td>
<td>328 000</td>
<td>329 380</td>
<td>50 400</td>
<td>119 320</td>
<td>61 890</td>
</tr>
<tr>
<td>Safety box 5 litres</td>
<td></td>
<td></td>
<td>36 450</td>
<td>36 975</td>
<td>5 550</td>
<td>13 275</td>
<td>6 775</td>
</tr>
</tbody>
</table>
Vaccine wastage due to CTC

- Nb of doses of vaccine used in CTC: 1,000,990
- Nb of vials discarded due to 4 days excursion disparity: 2
- Nb of Vials discarded due to exposure to 40°C: 0
## AEFI notified during campaign

<table>
<thead>
<tr>
<th></th>
<th>CTC</th>
<th>Non CTC</th>
<th>CTC</th>
<th>Non CTC</th>
<th>CTC</th>
<th>Non CTC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severe AEFI</td>
<td>5</td>
<td>19</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minor AEFI</td>
<td>343</td>
<td></td>
<td></td>
<td></td>
<td>348</td>
<td></td>
</tr>
<tr>
<td>Total AEFI</td>
<td>856</td>
<td></td>
<td></td>
<td>875</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Reported events from AEFI surveillance

• From the AEFI surveillance system,
  – 1164 AEFIs were reported
  – Of which 33 were severe AEFIs

• Of the 33 severe AEFIs investigated during the campaign by the Experts committee, none were attributed to use of a CTC.
Lessons learnt

Commitment of local leaders and administrative key persons (Sokode)
Lessons learnt

Anna-Lea and Landoh during supervision in Djarkpanga (Sotouboua District)
Lessons learnt

• ++ Microplans have been prepared the “classical Excel way” but in addition, for each of the CTC districts, the best scenario was discussed and identified in advance

• -- Detailed circuit of each vaccination team was completed just before the campaign

• ++ The implementation of the CTC in the districts helped solve MenA vaccine storage problem in health centers without refrigerators

• +- Vaccine coverage was similar in CTC districts compare to non CTC districts
Lessons learnt

Regional coordination meeting
(Central region)
Lessons learnt

• ++ There was no significant difference in vaccine wastage between CTC areas compare to non CTC areas.

• ++ Togo did not experience more AEFIs in CTC districts compared to non CTC district .

• -- Out of fear of vaccine wastage at the district level and vaccinators ➔ Scenarios were not implemented properly at the beginning of the campaign

• ++ Good acceptance and enthusiasm for CTC by health workers
Lessons learnt

• ++ In CTC districts, the management of ice packs was not a concern (in terms of packaging and transport) compared to what is usually seen in other campaigns.

• ++ One vaccine carrier per team was sufficient in CTC areas compared to two vaccine carriers in non CTC areas

• ++ During the polio vaccination campaign conducted from 19 to 22 December 2014, two weeks after the MenAfriVac campaign, the cold chain was used properly and without confusion in CTC districts
Conclusion

• Requirements for implementation of CTC
  – Commitment of decision makers
  – Adequate planning
  – Adequate staff training
  – Strong supervision and monitoring system

• Scale up of CTC to other types of vaccines would contribute to overcome inequities in many countries.
Thank you

Vaccinated Students showing their vaccination cards

Merci