CEO Board report

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CEO

GAVI Alliance Board meeting
Washington DC, USA, 12-13 June 2012
Overview of presentation

- New results
- Accelerated activities
- Expenditure and resources – horizon view
- Opportunities and challenges
- Board agenda: key decisions and themes for discussion
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Progress Report 2011
New look and multi media package
Pneumococcal and rotavirus vaccines rollouts in Ghana and Rwanda

Acceleration from June to December 2012:
9 pneumococcal vaccine introductions
6 rotavirus vaccine introductions
Christabel Emmanuel – first baby to receive pentavalent at Nigeria launch, 7 June
Australian multilateral aid review rates
GAVI a top performer – March 2012

“GAVI has consistently been able to demonstrate significant achievements against its strategic goals and overall mandate.”
Immunisation ranked in top three investments to tackle world’s biggest problems

Nobel Laureates rank childhood immunisation as one of the three most cost-effective solutions to advance global welfare.

“..spending about US$ 1 billion annually would save 1 million child deaths and have benefits 20 times higher than the costs.”
Women Deliver Top 50 award to GAVI for prioritising HPV vaccines – International Women’s Day

GAVI recognised for work to accelerate introduction of HPV vaccines in developing countries

Health News, 8 March 2012
World Health Assembly endorsed the Global Vaccine Action Plan

- GAVI programmes central to Action Plan
- Annual accountability report to WHO regional committees
Save the Children report highlights inequalities in immunisation
Children from poor families less likely to be fully immunised

Patterns of DTP 3 vaccination coverage across wealth quintiles since 2005

Source: DHS and MICS data (since 2005)
Courtesy: Save the Children UK, 2012
Child mortality – key data points

- **Good news**
  - Decline from >12 million in 1990 to 7.6 million in 2010 (35%)
  - Accelerating rate: from 1.9% per year 1990–2000 to 2.5% per year 2000–2010

- **Bad news**
  - 21,000 children die every day (2010)
  - Many countries NOT on track to reach MDG 4 (reduce under-five mortality by two thirds)

Source: Child Mortality Report 2011, estimates developed by the UN Inter-agency Group for Child Mortality Estimation
Countdown report 2012 – global progress to MDG 4 for child survival

3.1 million neonatal deaths, 40% of all under-five deaths

![Graph showing mortality rates over time](image-url)

- **Under-five mortality rate (UN)**
- **Under-five mortality rate (IHME)**
- **Neonatal mortality rate (UN)**
- **Neonatal mortality rate (IHME)**

**Year**
- 1990
- 1995
- 2000
- 2005
- 2009
- 2015

**Mortality per 1,000 live births**
- 100
- 90
- 80
- 70
- 60
- 50
- 40
- 30
- 20
- 10
- 0

**MDG 4 target**
- 29

**Notes**
- Courtesy: Countdown to 2015: Data for action and accountability, 2012
Infectious causes of child deaths 1–59 months
GAVI-eligible countries – 2010 estimates

Pneumonia 24%
Diarrhoea 18%
Meningitis 4%
Measles 3%
Malaria 9%
AIDS 3%
Other conditions 40%

Source: CHERG, WHO and UNICEF 2012
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Taking stock: the immunisation gap

129 million surviving newborns in 2010:

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Vaccinated</th>
<th>Not Vaccinated</th>
</tr>
</thead>
<tbody>
<tr>
<td>DTP</td>
<td>85%</td>
<td>15%</td>
</tr>
<tr>
<td>Hepatitis B</td>
<td>75%</td>
<td>25%</td>
</tr>
<tr>
<td>Hib</td>
<td>42%</td>
<td>58%</td>
</tr>
<tr>
<td>Pneumococcal</td>
<td>6%</td>
<td>94%</td>
</tr>
<tr>
<td>Rotavirus</td>
<td>6%</td>
<td>94%</td>
</tr>
</tbody>
</table>

Sources:
Pentavalent vaccines: actual, approved and forecast introductions to 2015

* Gambia introduced prior to GAVI support
** Nigeria: 13 states + capital currently introducing
*** India: first two states introduced in December 2011

Source: GAVI Alliance, April 2012
Pneumococcal vaccine: actual, approved and forecast introductions to 2015

Source: GAVI Alliance, April 2012
Rotavirus vaccine: actual, approved and forecast introductions to 2015

Source: GAVI Alliance, April 2012
GAVI to support rubella immunisation in 49 countries

2018

GAVI Alliance Board meeting
12-13 June 2012

Forecast
Other GAVI-eligible or graduating countries

2013-2018: 49 countries

Number of doses (millions)

<table>
<thead>
<tr>
<th>Year</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
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<tr>
<td></td>
<td>66</td>
<td>225</td>
<td>142</td>
<td>123</td>
<td>28</td>
<td>14</td>
</tr>
</tbody>
</table>
Meningitis A vaccine

- Preventive campaigns (2010–2011) in Burkina Faso, Mali, Niger – record low levels of meningitis incidence
- Cameroon, Chad, Nigeria continuing roll-out in 2012 (started Dec 2011)
- Sudan, Senegal, Benin, Ghana start Oct 2012

Source: GAVI Alliance data as at June 2012
## Meningitis surveillance in Burkina Faso

### Number of confirmed cases, 2008–2012

<table>
<thead>
<tr>
<th>Year</th>
<th>N° of cases</th>
<th>N° spinal taps</th>
<th>Mening A</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>10 401</td>
<td>241</td>
<td>156</td>
</tr>
<tr>
<td>2009</td>
<td>4 723</td>
<td>275</td>
<td>36</td>
</tr>
<tr>
<td>2010</td>
<td>6 732</td>
<td>469</td>
<td>66</td>
</tr>
<tr>
<td>2011</td>
<td>3 155</td>
<td>2 714</td>
<td>4</td>
</tr>
<tr>
<td>2012 Week 17</td>
<td>5 300</td>
<td>2 094</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: MoH Burkina Faso
Courtesy: World Health Organization
Yellow fever vaccine

- Ghana, Côte d'Ivoire – continue roll-out in 2012/2013
- Sudan and South Sudan – WHO risk assessment ongoing
- Supply challenges – 3 out of 4 prequalified manufacturers have production problems

Source: GAVI Alliance data as at June 2012
Steps taken after Board decision to introduce HPV vaccines

- Secured price reduction commitment from industry
- National introductions for countries with demonstrated ability to deliver HPV vaccines
  - Criteria for support finalised, guidelines and application forms developed
  - Application round currently open to 31 August
- By 2015, 6 countries are forecast* to introduce nationally, starting in 2013

* SDF v5.0
HPV demo projects engages new partners

- Wide consultation with adolescent and reproductive health, cancer, education, academic and research partners, including WHO, UNICEF, UNFPA, UNESCO, UNAIDS, American Cancer Society, UICC, CEDPA, JHPIEGO, Zimbabwe University, LSHTM

- Demonstrate by doing: immunise 50% of district using planned strategy

- Application round for support opens Q3/2012

- By 2015, 13 countries forecast* to start demonstration projects

* SDF v5.0
Number of additional children fully immunised with GAVI support (millions)

(Target increase: +243 million)

By 31 December 2010, GAVI had supported the immunisation of 288 million additional children

Vaccine introductions since 13 June 2011: pentavalent, pneumococcal, rotavirus

Number of newborns (millions)

- Pentavalent
- Pneumococcal
- Rotavirus

Sources: UN DESA, Population Division, 2011: World population prospects, 2010

* Tamil Nadu & Kerala
Estimated number of children immunised

Country targets

- **Rotavirus**
  - Bolivia
  - Ghana
  - Guyana
  - Honduras
  - Moldova
  - Nicaragua
  - Rwanda
  - Sudan
  - Yemen

- **Pneumococcal**
  - Benin
  - Burundi
  - Cameroon
  - Central African Republic
  - Democratic Republic of the Congo
  - Ethiopia*
  - Gambia
  - Ghana
  - Guyana
  - Honduras
  - Kenya
  - Malawi
  - Mali
  - Nicaragua
  - Rwanda
  - Sierra Leone
  - Yemen

Source: GAVI Annual Progress Reports (APRs), April 2011

* Ethiopia is APR from 2010, estimates for 2012
Measles – canary in the coalmine

Welsh miner Charlie Williams, with canary, in Dinas mine, Rhonda Valley, in 1965
Measles – progress to date

Measles global annual reported cases and MCV1 coverage, 1980 to 2010

Data shows dramatic drop in measles incidence since 1980s

Courtesy: The Measles & Rubella Initiative, 2011
Resurgence of measles

In AFRO region:

- 4-fold increase since 2008
- Large outbreaks in Burkina Faso (2009), S. Africa (2010), and DRC (2011)
- Outbreaks in drought affected Horn of Africa
  - High case-fatality
Reported measles incidence rate, January to December 2011, and number of reported measles cases in 15 large outbreaks, January 2011 to May 2012

Data sources: surveillance DEF file and country reports received at WHO IVB
Data in HQ as of 30 May 2012

- **Ukraine**: 11,441 cases
- **Somalia**: 17,508 cases
- **Pakistan**: 4,386 cases
- **Zambia**: 13,234 cases
- **Niger**: 12,004 cases
- **France**: 15,576 cases
- **Philippines**: 6,910 cases
- **Italy**: 5,314 cases
- **Nigeria**: 19,021 cases
- **Chad**: 13,324 cases
- **Romania**: 5,616 cases
- **Sudan**: 5,616 cases
- **Ethiopia**: 6,119 cases
- **Kenya**: 3,872 cases

Legend:
- $<1$ (75 countries or 39%)
- $\geq1$ - $<10$ (39 countries or 20%)
- $\geq10$ - $<50$ (38 countries or 19%)
- $\geq50$ (25 countries or 13%)
- No data reported to WHO HQ (17 countries or 9%)
- Not applicable
Wild poliovirus cases 2011

Excludes viruses detected from environmental surveillance and vaccine derived polioviruses.

Courtesy: The Global Polio Eradication Initiative
Wild poliovirus cases November 2011–May 2012

*30 Nov 2011 – 29 May 2012

- Wild virus type 1
- Wild virus type 3
- Wild virus type 1/3

- Endemic country
- Country with WPV case in previous 6 months

*Excludes viruses detected from environmental surveillance and vaccine derived polioviruses.

Data in WHO HQ as of 29 May 2012
Courtesy:
The Global Polio Eradication Initiative
Country demand: 18 new vaccine applications approved in April 2012

Note: In 2011 the majority of countries were approved for pentavalent vaccine, rather than for Hib and hepatitis B vaccine separately. Therefore, from 2011 onwards GAVI changed its reporting method to include the combination pentavalent vaccine only.

Source: GAVI Alliance data as of 30 April 2012
Co-financing update 2011

- Most countries are fulfilling their obligations
- Country performance for 2011:
  - 60 countries met their commitments
  - DRC and CAR remain in default
  - 4 countries originally defaulted but 2 already paid the arrears
- Total amount co-financed for 2011: US$ 37 million (representing 8% of GAVI vaccine support to co-financing countries)
- Total amount co-financed since 2008: US$ 120 million (representing 9% of GAVI vaccine support to co-financing countries)
Market shaping – supply security and price

New pentavalent supplier

India-based BioE’s pentavalent vaccine now prequalified by WHO in both liquid and freeze-dried presentations

New GAVI price for rotavirus vaccine

Sources: PAHO, 2011; UNICEF Supply Division, 2012; WHO 2012
Rotavirus detection and vaccine coverage in Bolivia

Percentage rotavirus detection in children <5 years of age, hospitalised with diarrhoea, and rotavirus vaccine coverage, sentinel surveillance, Bolivia, 2008-2010*

* Annual RV detection presented only for years with 12 months data reported and at least 100 stool specimens tested
Reaching the unvaccinated
Over 19 million children still missing out

Global number of under-five children unimmunised with 3 doses of DTP

GAVI-eligible:* 15.4 million

Non GAVI-eligible: 3.9 million

India: 7.1 million
Nigeria: 1.7 million
DR Congo: 1.0 million
Pakistan: 0.6 million
Uganda: 0.6 million
Ethiopia: 0.4 million
Afghanistan: 0.4 million
Kenya: 0.2 million
Niger: 0.2 million
Mozambique: 0.2 million
Rest of GAVI-eligible: 3.0 million

*From 2011, GAVI has 57 eligible countries.
Wide variations in immunisation coverage

69% of partially and un-immunised children in 6 states:

- Uttar Pradesh
- Bihar
- Madhya Pradesh
- Rajasthan
- West Bengal
- Gujarat

Source: District Level Household Survey 2008
Courtesy: WHO and UNICEF, 2011
MCV2 introduction through catch-up campaigns

Target population:
- ~130 million children 9 months – 10 years of age
- 361 districts in 14 states

<table>
<thead>
<tr>
<th>Phase</th>
<th>Number of States</th>
<th>Number of Districts</th>
<th>Target Population (9 m - 10yrs)</th>
<th>% Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 1</td>
<td>13</td>
<td>45</td>
<td>13,845,686</td>
<td>87.2</td>
</tr>
<tr>
<td>Phase 2</td>
<td>14</td>
<td>157</td>
<td>42,931,906</td>
<td>89.3*</td>
</tr>
<tr>
<td>Phase 3**</td>
<td>15</td>
<td>159</td>
<td>~73,000,000</td>
<td></td>
</tr>
</tbody>
</table>

Source: Based on target population available with GoI
Data as of 21 May 2012. ** Phase 3 will be conducted during Fiscal Year 2012-2013
Courtesy: WHO and UNICEF, India
Pentavalent vaccine introductions 2011–2012

Courtesy: WHO and UNICEF, India
India: causes of under-five mortality – 2010 estimate

Source: CHERG, WHO and UNICEF 2012
Health system strengthening

- As of March 2012, 54 active HSS grants. Total approved grants US$ 442m, about 80% disbursed to date
- Transition to immunisation-linked outcomes progressing
- Interagency Technical Advisory Group for HSS reporting to CEO, chaired by Dr Anders Nordström
- New performance-based approach – guidelines to countries by end of 2012
Health systems funding platform

- Nine HSFP applications reviewed by HSFP IRC in May 2012
- Quality of proposals improving with increased focus on immunisation, but still limitations to be addressed
- Strengthened peer review and GAVI stewardship for proposal preparation, more to be done
- Cash-based support needs to be more country tailored and responsive to changing environment
Tailored approach to countries

- “Fragile states”: immunisation performance not statistically linked to ‘fragility’ e.g. 14 countries <70% DTP3, 8 are ‘fragile’ and 6 ‘not fragile’

- Framework to identify challenges faced by subset of countries to access and leverage GAVI support e.g. persistently low coverage; poor governance; no functioning government

- Tailored approach: based on country-specific challenges propose flexibilities in GAVI policies and how they could be better applied

- Next steps: Country consultations (March-August) & public consultation (June-July), PPC review Oct, Board consideration Dec 2012
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Needs and resources through 2020

**Total for 2011 - 2015**

- **Needs**: $6.1 bn
  - Future Programmes: $1.9 bn
  - Existing Programmes: $4.2 bn
- **Resources**: $8.0 bn
  - Assured Resources: $7.7 bn
  - Indicative: $0.1 bn

**Total for 2016 - 2020**

- **Needs**: $7.9 bn
  - Future Programmes: $2.9 bn
  - Existing Programmes: $4.9 bn
- **Resources**: $6.5 bn
  - Assured Resources: $1.2 bn
  - Addit. Needed: $5.3 bn
  - Additional Resources Needed: $1.4 bn

**Indicative!**

- **IFFIm, AMC, etc.**: $2.8 bn
- **Cash Reserve**: $1.0 bn

Needs are prior to:
- Any new options
- Monitoring IRC adjustments

**Indicative!**

- **IFFIm & AMC**: Prior to any new pledges

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GAVI Matching Fund: new partners

Atletico Madrid
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Immunisation data quality assessment – improving coverage data systems

- IDQA redesigned to improve quality of data systems
  - Country-led assessment tool
- Quality assurance of reported DTP3 and PCV3 data
- Capacity building – linked to multi-year improvement plan
- Pilot in 2012 – Ghana, Uganda, Bolivia
Supply capacity constraints
Rotavirus vaccine: cumulative introductions versus 2011–2015 Strategy

- 8 roll-outs in 2012
- Currently predict 2-5 will introduce in 2013
- 2014-15 will see intros back on track
- Up to 9 approved countries delayed for a year
- Readiness continues to be potential bottleneck
Pneumococcal vaccine: cumulative introductions versus 2011–2015 Strategy

- 16 roll-outs in 2011
- 10 roll-outs in 2012
- Currently predict 5 will introduce in 2013
- 2014-15 will see intros back on track
- Delays of a year effecting up to 15 countries
- Readiness continues to be potential bottleneck
Changing context for GAVI business

- From replacement vaccine (e.g. pentavalent) to vaccines that change and expand the immunisation schedule
- Short-term supply capacity constraints
- From US$ 100s of millions to US$ 1bn+ each year
  - Accelerated pace of vaccine introductions
  - Vaccines more costly and more valuable
- Heightened focus on results and value for money
The Alliance: adapting to changing context

- Starting with time-limited cross cutting country team through July to review business model
- Core principles:
  - Work closely with partners
  - Solutions developed and eventually implemented at operational level in countries, with countries
  - Some changes out of bounds: e.g. in-country GAVI secretariat staff
- Areas of focus: country delivery: end-to-end vaccine supply chain, evaluating countries’ readiness and plans, country application and IRC process
- Other topics, such as knowledge management, to be considered at a later time
High-level generic supply chain

Material flow

Suppliers  Manufacturing sites  Headquarter  Distribution  Customer

Traded goods

Site

Supply Chain Activities

National Warehouse

Local Warehouse

Local Warehouse

Information flow

Financial flow
Supply Chain Management across the Alliance

1. NVS country application
2. IRC endorsement
3. Doses and $ amount
4. SDF
   - Dosage demand review
5. Average price assumptions
6. ADF
   - Financial expenditure forecast
7. Board/EC approval
8. Generic DL
9. Revised ADF
   - Supply versus demand analysis by product
   - If shortage, application of allocation procedure
   - Introduction date adjusted based on country readiness
10. Revised DL
   - DL to countries with doses
11. EC
12. Revised financial
13. Agreement on shipment plan with country
14. Cash transfer notice to GAVI
15. Monthly Rolling forecast to manuf.
16. Check dose amount
17. Check $ amount and pay
18. PO to manufacturer
19. ADF
20. Financial
21. New DL
22. Vaccine shipped
23. Lessons learnt
24. Quarterly shipped reports
25. Annual reports
26. APR (may)
27. MIRC
28. PIE
29. Doses and $ amount revised
30. AVR team with partners
31. Country Programmes
32. Finance
33. WHO/UNICEF/partners in country
34. UNICEF SD
35. ICC review & peer review in country
36.Unicef

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Similarly PCV consumption in Kenya indicates that, in the year of introduction, consumption was >50% above the original yearly forecast.

- In 2011, Kenya consumed 50% more PCV (1.3 million PCV doses) than initially forecasted. This estimate is likely conservative* as there were stock outs shortly after introduction and a high dropout between PCV doses in the first 6 months.

* Kenya was less constrained in PCV supply because it received PCV supplies for Q4 2010 assuming the introduction would be one quarter earlier.
More than half the children in Malawi and Ethiopia presenting to facilities for PCV1 were above 14 weeks (3.5 months) old, and had likely already received Penta3.

Note: 14 weeks was selected as the standard cut off for Penta3. As per Malawi’s guidelines, children above 52 weeks (1 year old) are not eligible for PCV.
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Key decisions

- Measles plus
- Programme funding policy
- Business plan priorities
- Vaccine introduction grants and campaign operational support
- Continued special studies funding
- CSO support
Key themes for discussion and guidance

- Supply capacity constraints
- Long-term funding strategy
- Impact of global economic situation
- Risks and change management
Thank you

Save the Date

GAVI Alliance 5th Partners' Forum
5-7 December 2012
Dar es Salaam, Tanzania