Next-Generation Supply Chains

How do we contribute to sustainable improvements in coverage and equity

Chris Wright, JSI
Alan Brooks, Gavi Secretariat

TechNet-Lisbon
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Global trends in the health supply chain

- Greater collaboration among development partners
- Demand for end-to-end data visibility and traceability
- Focus on efficiencies
- Leverage and share resources across the health sector
- Think ahead and prepare for change
Collaboration to improve Country Impact

Interagency Supply Chain Group (ISG): An informal partnership of 15 global partners* for sharing information and seeking greater alignment across supply-chain investments to bring more impact to individual agency supply chain strategies.

- Consensus on adopting GS1 standard for identification, barcoding and other product-specific data
- Harmonized set of recommended supply chain KPIs
- Joint investments in >10 countries
- Comprehensive national SC strategies, tools and approaches
- Developing common approach to data vis & use (digital LMIS, global and country VANs, NLWGs, etc.)

2015 Health commodity procurement

Total estimated value US $4.2 billion
Immunisation supply chain risk will increase due to higher volumes, doses and vaccine cost.

**Growing volume (cm³) to vaccinate per child**

- 2010: 70
- 2020: 280

**Increasing number of doses**

- ~4x
- ~6x
- ~5x
- ~2x

**Introduction of more expensive vaccines**

- 2010: $0.8
- 2020: $4.1

**Increase in stock keeping units per year for GAVI vaccines**

Supply chain requirements 2010 vs 2020.
Examples of real and potential product innovations that could impact supply chains

- Thermostability
- Presentation & packaging
- Devices
- Combinations & schedules
- Health system development
Gavi Mission and strategic goals
2016–2020

Accelerate equitable uptake and coverage of vaccines
Increase effectiveness & efficiency of immunisation delivery as integrated part of strengthened health systems

To save children’s lives and protect people’s health by increasing equitable use of vaccines in lower-income countries

Improve sustainability of national immunisation programmes
Shape markets for vaccines and other immunisation products

#vaccineswork
Vaccine purchasing patterns

Gavi Procured Volume

Gavi Procured Value

IFPMA: Developed Country Manufacturing Assoc
DCVMN: Developing Country Manufacturing Assoc
2015: Ambitious ambition

Theory of Change

If we help countries put in place the supply chain fundamentals...

...then vaccines will be

Available
In the right place at the right time

Potent
Providing a high level of immunity

...and systems will be

Efficient
Resources used for best purpose

...helping to achieve improvements in:

Vaccine coverage & equity

Under-5 mortality
Projected 2016 – 2020 vaccine costs

Total vaccine expenditure
US $ 6.1 billion

72.5% of expenditure attributed to Pneumo, Pentavalent and Rotavirus

Source: Financial Forecast, v12.0Fa, July 2016
Technical assistance support to countries

2016: Approx US$ 29M

- Leadership: 21%
- Continuous Improvement: 22%
- Data 4 Management: 19%
- Cold Chain Equipment: 16%
- System Design: 22%
Supply chain approved financial requests

Gavi Health System Strengthening grants

2013-2014: US$ 165M
2015-2016: US$ 185M

12% increase from 2013-14 to 2015-16
+ US$ 250M to cold chain equipment optimisation platform
### Progress against supply chain strategy

*Estimated as of mid-2017*

<table>
<thead>
<tr>
<th>2020 deliverables</th>
<th>Leadership</th>
<th>Continuous improvement plans</th>
<th>Data for management</th>
<th>Cold chain equipment</th>
<th>System design</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC leaders in 10 countries meet competency requirements</td>
<td><strong>35 countries</strong> have dedicated and competent supply chain leaders</td>
<td>All Gavi countries implement comprehensive supply chain management plans</td>
<td>30-40 countries use data to oversee supply chain and measure performance</td>
<td>40-50 countries have improved cold chain equipment</td>
<td>At least <strong>10 countries</strong> have done system design</td>
</tr>
<tr>
<td>32 of 47 countries show improvement in EVMs; 13 countries with EVMs &gt;80%</td>
<td>Continuous improvement plans</td>
<td>Data for management</td>
<td>Cold chain equipment</td>
<td>System design</td>
<td></td>
</tr>
<tr>
<td>23 countries started implementation</td>
<td>Accelerating (e.g. eVIN India)</td>
<td>Accelerating (e.g. LLP contributes to C&amp;E)</td>
<td>Accelerating (e.g. Pakistan)</td>
<td>10 countries started analyses; 7 countries implementing</td>
<td></td>
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<tr>
<td>Submissions from 45% of eligible countries</td>
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**Accelerated in 2018 (e.g. NLWGs, e-learning modules)**

- 19% achieved EVM >80% vs target of 20%
Driving progress towards the Alliance’s coverage and equity goals

If countries have reliable financing & the following fundamentals in place...

...vaccines will be
- Available: In the right place at the right time
- Potent: Providing a high level of immunity
- Risks of vaccine loss will be mitigated
- and systems will be
- Efficient & Resilient: Resources going further

...helping to achieve sustainable improvements in
- Vaccine coverage & equity
- Under-5 mortality

Updated Theory of Change - 2017

Optimised equipment
iSC design
Data for management
Management, Coordination, & Human Resources
Continuous improvement process
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<tr>
<td>Available</td>
<td>Vaccine coverage &amp; equity</td>
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<tr>
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Data and monitoring of supply chain strengthening and improved outcomes

Fundamentals plus…

…Supply chains outcomes monitored through Dashboards for Immunisation Supply Chains (DISC)

System improvements monitored through comprehensive Effective Vaccine Management Assessments

<table>
<thead>
<tr>
<th>Availability</th>
<th>Potency</th>
<th>Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Close vial wastage</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Forecasted Demand Ratio</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Full Stock Availability</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Functional Status of Cold Chain Equipment</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>On-Time and In-Full Delivery</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Stocked According To Plan</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Temperature Alarm Rate</td>
<td></td>
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Driving progress towards the Alliance’s coverage and equity goals

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Under-5 mortality

How do we accelerate from fundamentals to outcomes:

Availability, Potency, Efficiency & Resilience, & mitigation of Risks?
Driving progress towards the Alliance’s coverage and equity goals

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