VACCINE INVESTMENT STRATEGY: SHORT LIST

BOARD MEETING
Wilson Mok
6-7 June 2018, Geneva, Switzerland
VIS 2018 timeline and process

Stakeholder consultations

2017
- Board (June)
- PPC (Oct)
- Board (Nov)
- SC (Sept)

2018
- SC (Mar)
- PPC (May)
- Board (Jun)
- SC (Sept)
- PPC (Oct)
- Board (Nov)

- Endemic
  - Technical Briefing
- Epidemic
  - Approach
- Polio
  - Considerations

Criteria
- Short list
- Criteria & Approach
- Scenarios

Investment Decisions

Discussed in separate session
### Evaluation criteria and indicators for vaccines for endemic disease prevention

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Indicators</th>
<th>Criteria</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health impact</td>
<td>Total future deaths averted 2020-2035, and per 100,000 vaccinated Total future cases averted 2020-2035, and per 100,000 vaccinated</td>
<td>Other impact</td>
<td>Total U5 deaths averted 2020-2035, and per 100,000 vaccinated Total DALYs averted 2020-2035, and per 100,000 vaccinated Vaccine procurement cost per DALY averted</td>
</tr>
<tr>
<td>Value for money</td>
<td>Vaccine procurement cost per death averted Vaccine procurement cost per case averted</td>
<td>Gavi comparative advantage</td>
<td>Degree of vaccine market challenges Potential for Gavi support to catalyse additional investment</td>
</tr>
<tr>
<td>Equity and social protection impact</td>
<td>Disproportionate impact of disease on vulnerable groups Special benefits of vaccination for women and girls</td>
<td>Implementation feasibility</td>
<td>Ease of supply chain integration Need for health care worker behaviour change Feasibility of vaccination time point Acceptability in target population Long-term financial implications</td>
</tr>
<tr>
<td>Economic impact</td>
<td>Direct medical cost averted Indirect cost averted</td>
<td>Alternate interventions</td>
<td>Optimal use of current and future alternative interventions (prevention and treatment)</td>
</tr>
<tr>
<td>Global health security impact</td>
<td>Epidemic potential of disease Impact of vaccination on antimicrobial resistance (AMR)</td>
<td>Broader health system benefits</td>
<td>No specific indicator – evaluated case-by-case</td>
</tr>
<tr>
<td>Financial implications: Vaccine cost</td>
<td>Total procurement cost to Gavi and countries, 2020-2035</td>
<td>Operational cost</td>
<td>Incremental in-country operational costs per vaccinated person</td>
</tr>
<tr>
<td>Additional implementation costs</td>
<td>Additional costs for introduction</td>
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</tbody>
</table>
Evaluation of vaccines conducted consultatively with technical partners and in-country stakeholders

Demand Forecasting
- Vaccine products
- Vaccination strategy
- Schedule/dosing
- Delivery strategy
- Target population
- Country introduction
- Coverage

Impact Modelling
- Burden of disease
- Case fatality rate
- Efficacy
- Duration of protection

Price Forecasting
- Products
- Supplier projections
- Price projections

Other quant. analyses
- Procurement cost
- Operational costs
- Value for money
- Economic impact: cost of illness
- Global burden of disease

Qualitative analyses
- Epidemic potential
- Impact on AMR
- Implementation feasibility
- Vaccination policy
- Other qualitative input

Note: Non exhaustive. Many other institutions and individuals were consulted as part of the VIS 2018 Evaluation of vaccines conducted consultatively with technical partners and in-country stakeholders.
Board consultations informed prioritisation methodology

**Shortlisting approach**
Supportive of having multiple options

**Ranking criteria**
- Health impact: 40%
- Value for money: 20%
- Equity: 15%
- Economic impact: 10%
- Global health security: 15%

**Secondary criteria**
Consensus to use to adjust ranking

**Existing investments**
Mixed opinion on prioritising expansion of existing investments over new ones

**Total vs. relative**
Preference for total impact vs. per 100k vaccinated

Source: Consultations with Gavi Board members representing 17 constituencies/seats in February 2018
Ranking based on Board member criteria weighting

Total Points (out of 100)¹

<table>
<thead>
<tr>
<th>Disease</th>
<th>Health impact</th>
<th>Value for money</th>
<th>Equity and social protection</th>
<th>Economic impact</th>
<th>Global health security</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malaria</td>
<td>89</td>
<td></td>
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<tr>
<td>Meningitis</td>
<td>83</td>
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<tr>
<td>Rabies</td>
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<tr>
<td>DTP</td>
<td>65</td>
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<tr>
<td>Hep B</td>
<td>63</td>
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<tr>
<td>Cholera</td>
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<td>RSV</td>
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<tr>
<td>Mat. Influenza</td>
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<tr>
<td>Dengue</td>
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<tr>
<td>Hep A</td>
<td>11</td>
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</table>

¹ Maximum 40pts for health impact (30pts for total deaths averted, 10pts for deaths averted per 100k), 20pts for value for money (cost per death averted), 15pts for equity and social protection impact, 10pts for economic impact and 15pts for global health security.

Note: Malaria not up for investment decision. Used as comparator with Health impact and economic impact based on high-level estimates.
Four questions guide the assessment of potential investments in epidemic preparedness and response

1. Is the epidemic potential of disease sufficient to prioritise a stockpile or similar investment?

2. Would the vaccine be feasible to use and impactful as part of epidemic preparedness and response?

3. What is Gavi’s comparative advantage and how can Gavi’s expertise contribute to the funding and delivery of this vaccine?

4. What is the appropriate scale of the stockpile (or related intervention) and what would be the financial implications of an investment?
‘Living assessments’ will be developed for relevant vaccines until an investment case is needed

**VACCINES UNDER CONSIDERATION (to be refreshed)**
- Examples from WHO R&D Blueprint priority pathogens: Lassa fever, MERS, Nipah, Rift Valley Fever, etc.
- Indicative list:
  - Hepatitis E
  - Ebola 2nd gen
  - Chikungunya
  - Zika

**WHO guidance (e.g. PDVAC, R&D Blueprint)**
- Preliminary safety and immunogenicity data (Ph2a/b)
- Pathway to licensure in short term, public health need or updated WHO recommendation

**ACTIVITY**
1. **Identification of vaccines for consideration**
   - For potential future assessment

2. **‘Living Assessment’**
   - Understanding of disease, status of vaccine R&D, any potential Gavi role

3. **Investment Case**
   - Complete assessment, with financial implications and investment recommendation

**TRIGGER**
- PPC & Board Investment Decision (part of VIS or separately)

**Indicative list:**
- Pandemic Flu
- Brought to PPC & Board Oct/Nov 2018
Several options to support pandemic flu preparedness are emerging as most suitable for Gavi to consider.

**Short-term**
- **Lower**
  - Learning agenda to address research gaps
- **Mid-term**
  - Inventory of candidate vaccine strains
  - Reserve production capacity during pandemic (complement WHO PIP commitments)
  - Expand use of seasonal flu vaccine in high priority groups
- **Higher**
  - Physical vaccine stockpile

**Vaccine support (e.g. stockpile)**
- for incrementally improved vaccines / technologies
- for next generation products (e.g. ‘universal’ vaccine, mAb)

**Focus area for assessment of potential Gavi investment in 2018**

(Beyond vaccine investments, potential role for Gavi to work with countries to ensure preparedness plans in place)
Next steps for October/November 2018 PPC/Board

**Programme design**
- Programme / support options
- Implementation requirements and feasibility

**Financial implications**
- Procurement costs (Gavi and countries)
- Operational costs, including for new platforms
- Financial implications for countries

**Consultations**
- In-country, technical partners, experts, Board
- Vaccine preferences, programme design, implementation

**Portfolio considerations**
- Synergies and trade-offs across potential investments and with current portfolio
- Alignment / implications for Gavi’s current model
- Continue linking with ongoing 5.0 development

FOR DECISION:
New vaccine investments

- Shortlisted vaccines for endemic disease prevention
- Pandemic influenza
- IPV post-2020
Recommendation

The Gavi Alliance Programme and Policy Committee recommends to the Gavi Alliance Board that it:

a) **Approve** narrowing the choice of possible vaccine investment options for further analysis within the endemic disease prevention category of the Vaccine Investment Strategy 2018 to meningitis (multivalent conjugate); hepatitis B birth dose; cholera; DTP boosters; RSV; rabies;

b) **Approve** the evaluation criteria for potential new investments in vaccines for epidemic preparedness and response and the approach for applying the criteria towards living assessments and investment cases as further described in Figures 2 and 3;

c) **Request** the Secretariat, in consultation with WHO and other experts, to develop an investment case for Gavi to support pandemic influenza preparedness for PPC and Board review.
Thank you