

VACCINE INVESTMENT STRATEGY: METHODOLOGY

BOARD MEETING

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29-30 November 2017, Vientiane, Lao PDR



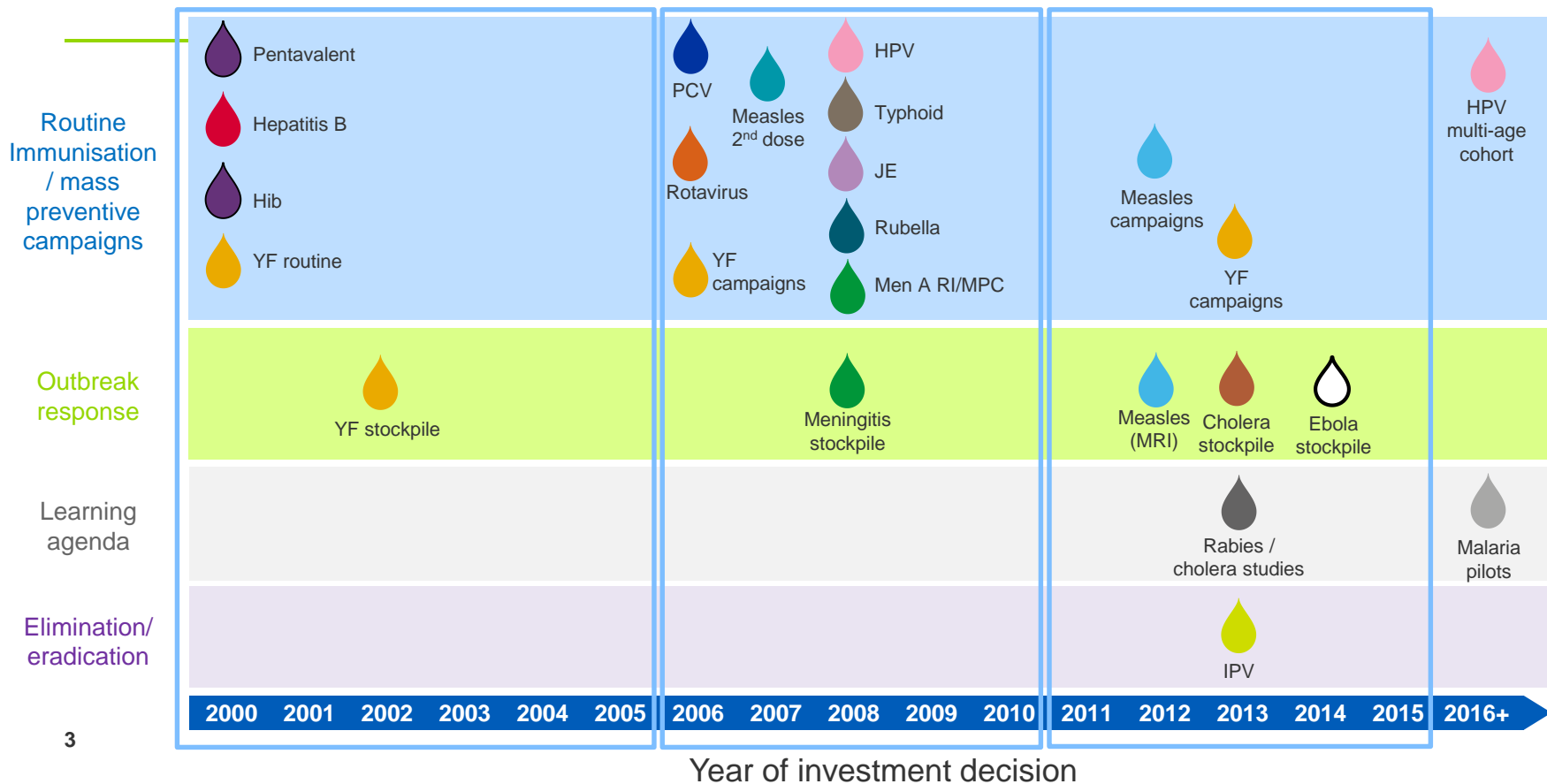
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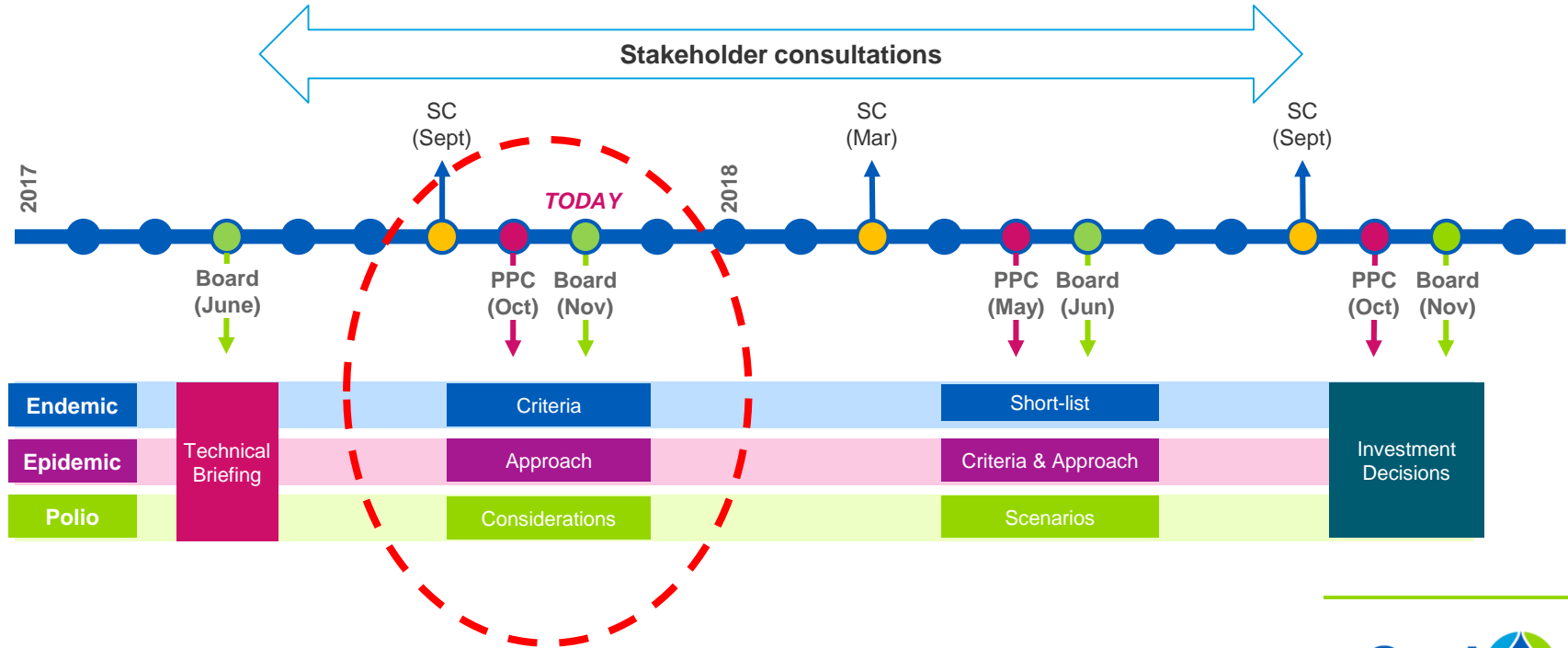
Overview

- VIS process
- Vaccine candidates
- **Evaluation criteria for endemic disease vaccines** **FOR DECISION**
- Analyses and shortlisting
- Vaccines for epidemic preparedness
- IPV post-eradication
- Longer-term priorities
- Next steps in 2018

Gavi's vaccine portfolio has diversified to include investments beyond routine immunisation



VIS is an evidence-driven, consultative process to identify new vaccine opportunities and priorities



20 diverse candidates require a differentiated evaluation approach

	<i>Link to current investment</i>	<i>New disease area</i>
Endemic Disease Prevention	<ul style="list-style-type: none">• Diphtheria• Tetanus• Pertussis• Hepatitis B• Oral cholera vaccine• Meningitis C, Y, W, X• Rabies• Rabies Ig/mAb• Malaria	<ul style="list-style-type: none">• Hepatitis A• Dengue• Influenza• RSV• RSV mAb
Epidemic Preparedness	<ul style="list-style-type: none">• Ebola	<ul style="list-style-type: none">• Chikungunya• Zika• Pandemic influenza• Hepatitis E
Polio Eradication	<ul style="list-style-type: none">• IPV (post-2020)	

Criteria to evaluate vaccines for endemic disease control through planned/routine immunisation

Evaluation Criteria

Draft Indicators

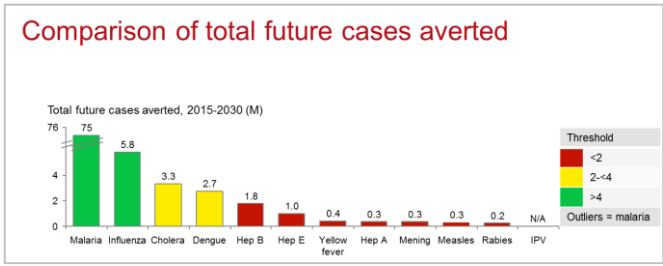
Ranking criteria	Health impact	Future deaths and cases averted
	Economic impact	Financial risk protection
	Equity and social protection impact	Gender, wealth, geography
	Global health security impact incl. AMR	Epidemic potential, antimicrobial resistance (AMR)
	Value for money	Cost per death and case averted
Secondary criteria	Other impact	U5 deaths averted, DALYs averted, cost per DALY averted
	Gavi comparative advantage	Market shaping need and catalytic effect
	Broader health systems benefits	Opportunity to strengthen health system or vaccination time point
	Implementation feasibility	Ease of supply chain integration, health care worker behaviour change, feasibility of vaccination time point, need for demand promotion
	Alternate interventions	Current and future alternative interventions
Cost	Vaccine cost	Procurement cost
	Operational cost	Operational cost
	Additional implementation cost	Surveillance, technical assistance, etc.

Following vaccine analyses, consultations to determine criteria weighting, options for PPC

Dengue Phase I Scorecard
Modelled scenario: one-time catch up campaign 2-<15 year olds followed by routine immunization at 2Y

Category	VIS Criteria	Phase I Indicator	Phase I Evaluation
Health Impact	Impact on child mortality	-700 US future deaths averted, 2015 - 2030	Red
	Impact on overall mortality	-0.4 US future deaths averted per 100,000 vaccinated population	
	Impact on overall morbidity	-4,600 total future deaths averted, 2015 - 2030	
Additional impact considerations	Epidemic potential	-3 total future deaths averted per 100,000 vaccinated population	Yellow
	Global or regional public health	-2.7M total future cases averted, 2015 - 2030	
	Herd immunity	Population at risk	
Implementation feasibility	Availability of alternative	only supportive care	Yellow
	Socio-economic inequity	target groups are at risk	
	Gender inequity	only below demand and still TBD	
Cost and value for money	Vaccine procurement cost ¹	-290,000 procurement cost per death averted, -\$490 per case averted	Red
	In-country operational cost	Medium: 3 doses outside schedule and a medium size catch-up campaign	
	Procurement cost per event averted ²		

Step 1: evaluate & compare vaccines



Step 2: Consultations on shortlisting

“vaccines that are very difficult to implement should not be prioritised”

“vaccines with AMR impact should get extra ‘points’”

Shortlist A Shortlist B Shortlist C

Step 3: Options for PPC review

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Ongoing vaccine assessments in close cooperation with technical partners

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 quantitative analysis

- Vaccine cost projections
- Operational costs
- Value for money
- Economic Impact: cost of illness, financial risk protection

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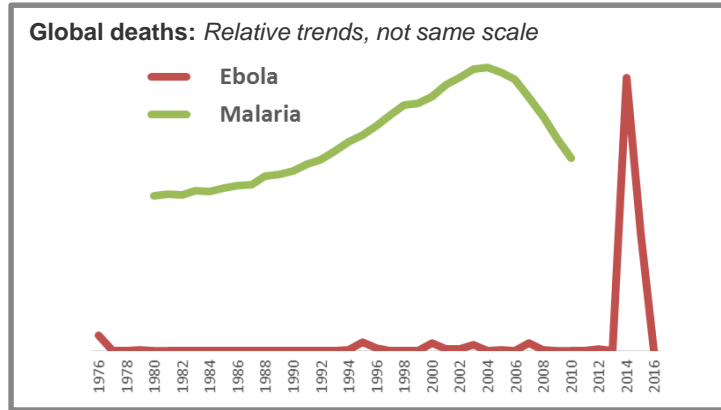
Imperial College
London



Swiss TPH



Unpredictability of epidemic diseases necessitates tailored evaluation criteria

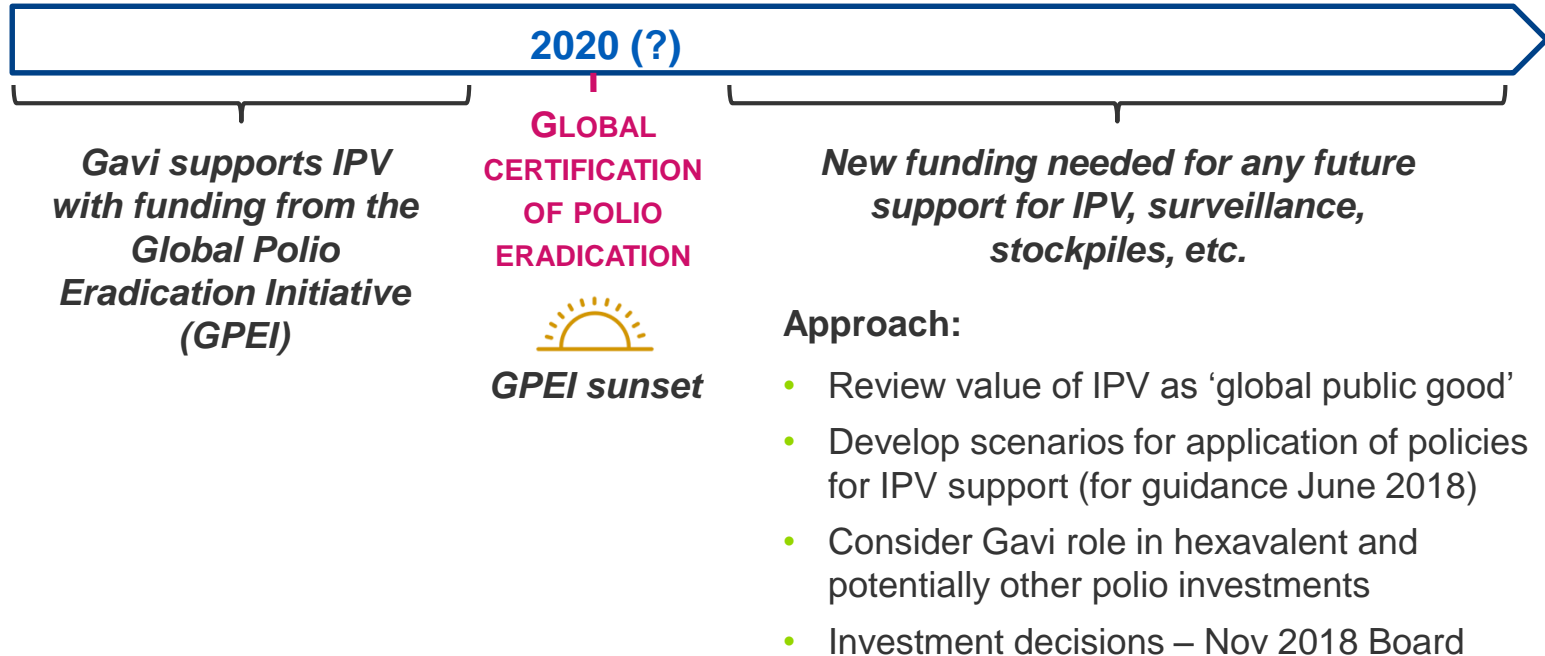


Unpredictable nature of disease make vaccine impact projections uncertain

PPC guidance:

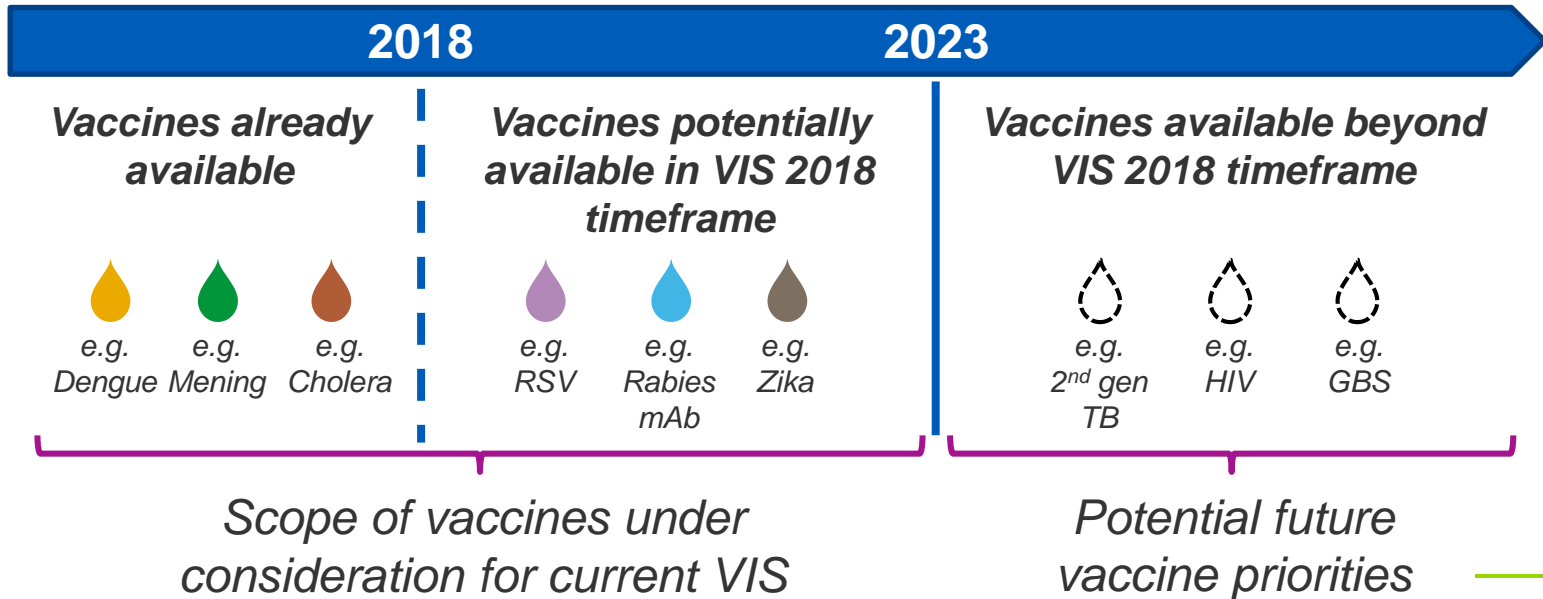
- Present criteria + review process at May/June PPC and Board
- Pre-licensure vaccines: not Gavi's mandate to fund, noting Board can take exceptional decisions as required (e.g., Ebola)
- All vaccines assessed case by case, including those funded through CEPI or other initiatives

Gavi's role in polio eradication post-2020



Need for longer-term view in light of vaccine development timelines

Gavi's 5-year strategic cycle sits within longer vaccine development timelines



Next steps 2018

For June 2018 Board

Endemic disease prevention

- Finalise indicators
- Consultations on criteria weighting and application
- Vaccine assessments, including modelling

FOR DECISION: Shortlist of vaccines for endemic disease prevention

Epidemic preparedness

- Expert consultations to refine criteria
- FOR DECISION:** Evaluation criteria and approach for epidemic preparedness vaccines

Polio eradication

- Update situational analysis: timelines, supply, hexa
- IPV policy/financing considerations and options

FOR GUIDANCE: IPV scenarios

For Nov 2018 Board

- Updated and more in-depth analyses
- Interdependencies and trade-offs in investments across categories

FOR DECISION

- New vaccine investments

Recommendation

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

- a) **Approve** the evaluation criteria for potential new investments in vaccines and other immunisation products primarily intended for endemic disease prevention; these include ranking criteria (health impact, economic impact, equity and social protection impact, global health security impact, and value for money), secondary criteria (other impact, Gavi's comparative advantage, broader health systems benefits, implementation feasibility, and alternate interventions) and cost criteria (vaccine cost, operational cost, and additional implementation costs) as further described in Table 1 and Section 4 of Doc 07 to the PPC [*as included in Annex C to Doc 12 to the Board*];

- b) **Request** the Secretariat, in consultation with WHO and other experts, to develop evaluation criteria for potential new investments in vaccines for epidemic response for PPC review and Board approval.

THANK YOU



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