Vaccine Investment Strategy

Aurélia Nguyen, Judith Kallenberg

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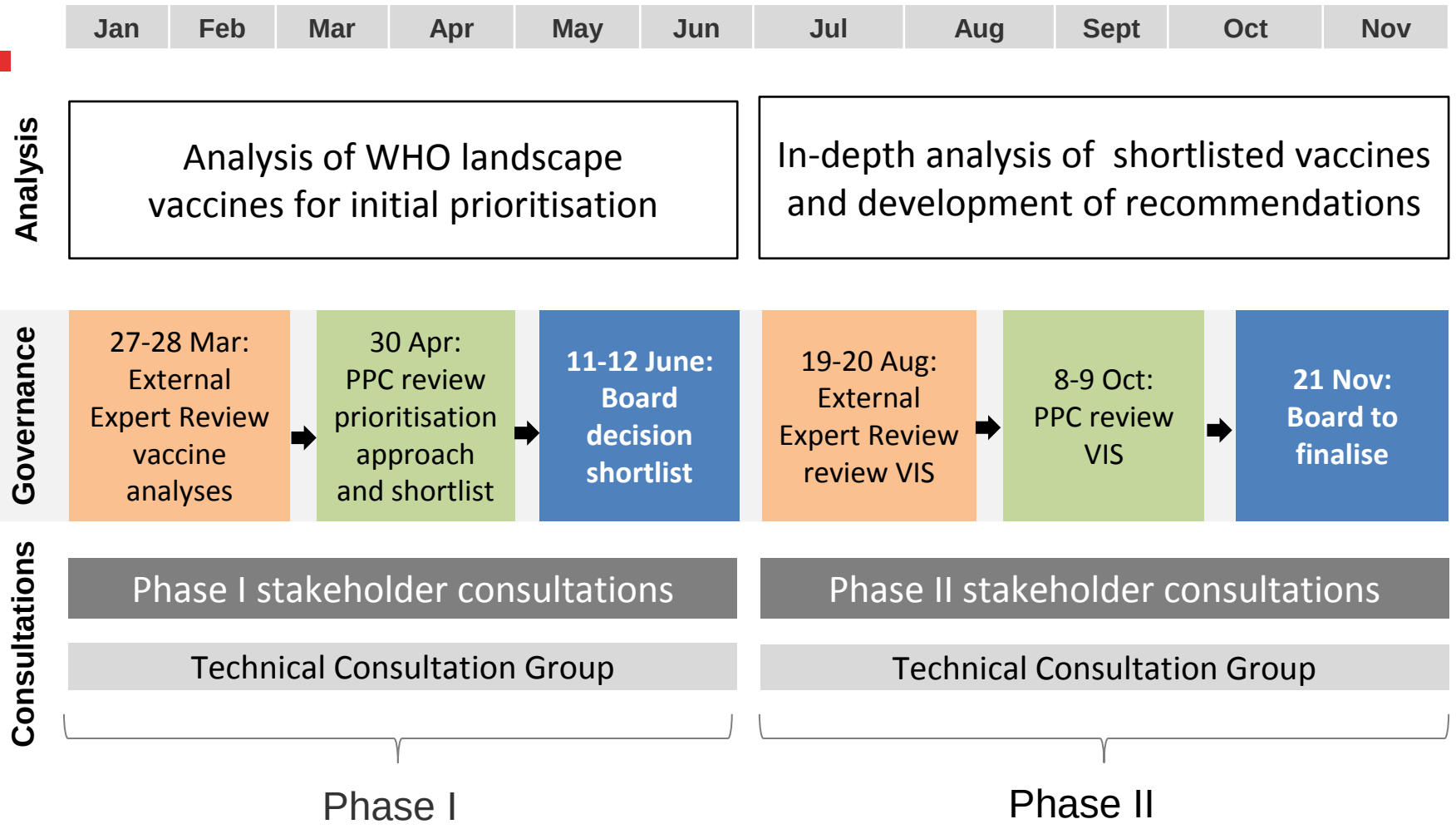
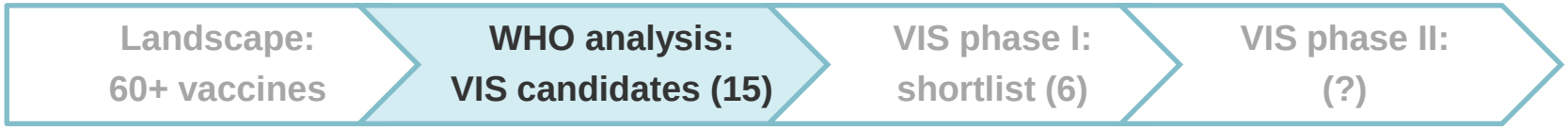
Strategy process



Scope of vaccines for consideration

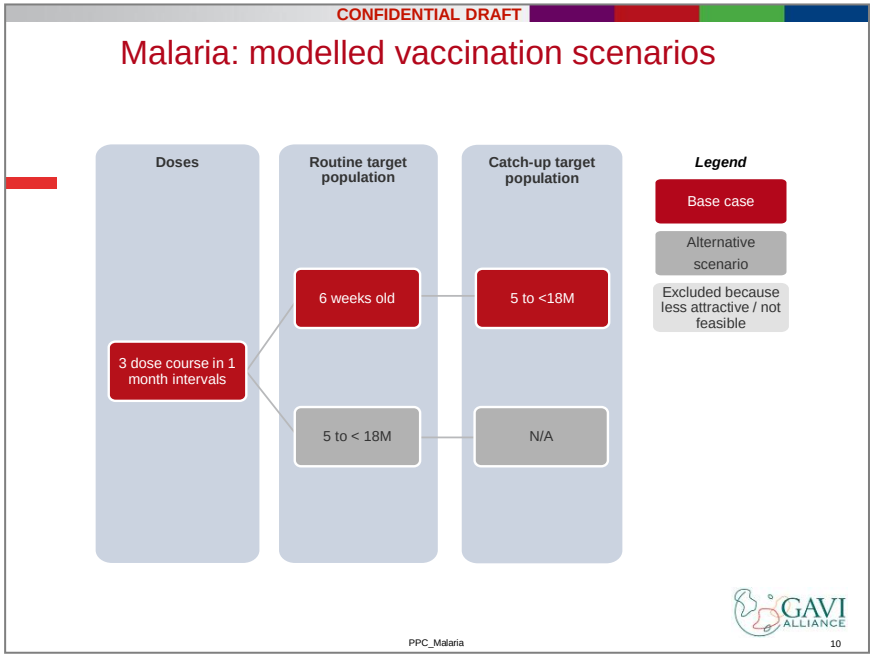


- Inclusion criterion: anticipated licensure by 2019
- Out of scope: vaccines primarily indicated for emergency response or biosecurity purposes
- 15 vaccine candidates for VIS review:

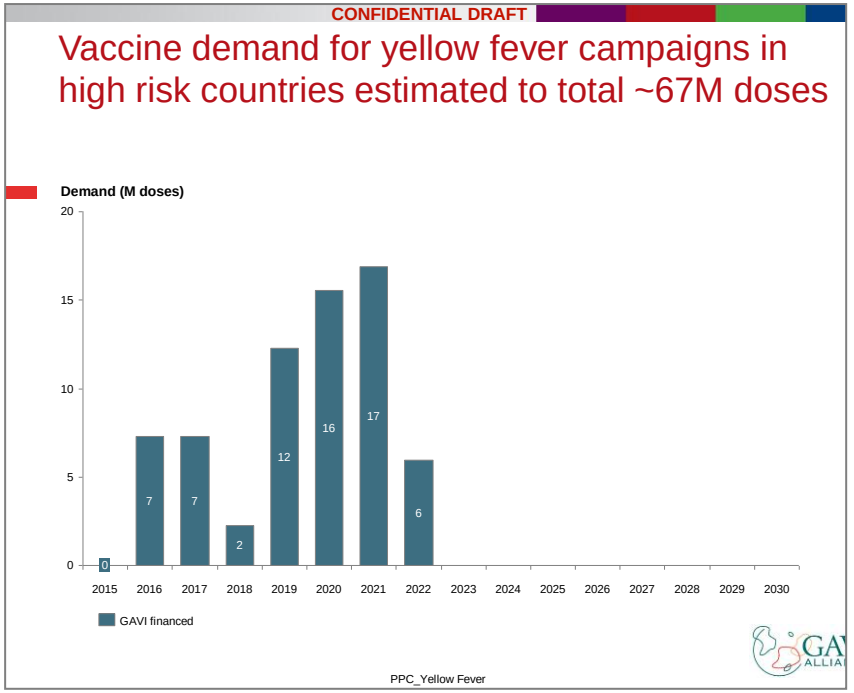
Potential expansion of GAVI vaccine support	Existing vaccines not supported by GAVI	'Pipeline' vaccines
~~DTP (booster)~~	Cholera	Malaria
Hepatitis B (birth dose)	Hepatitis A	Dengue
Measles (additional campaigns)	Hepatitis E	~~Enterovirus 71~~
Meningococcal (additional serotypes)	Influenza	
Yellow Fever (additional campaigns)	~~Mumps~~	
	Poliomyelitis	
	Rabies	

Methodology for vaccine evaluation

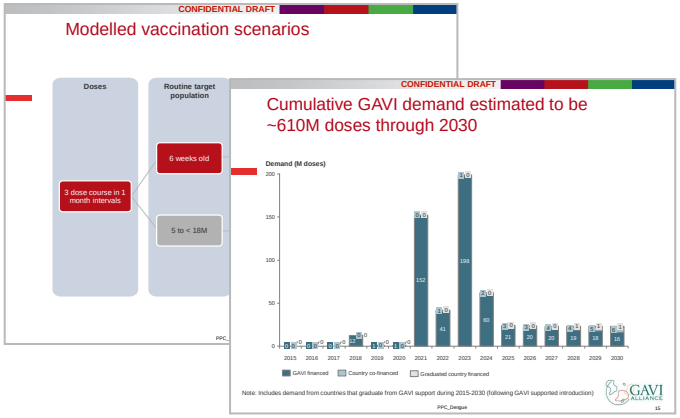
1. Identify vaccination scenarios



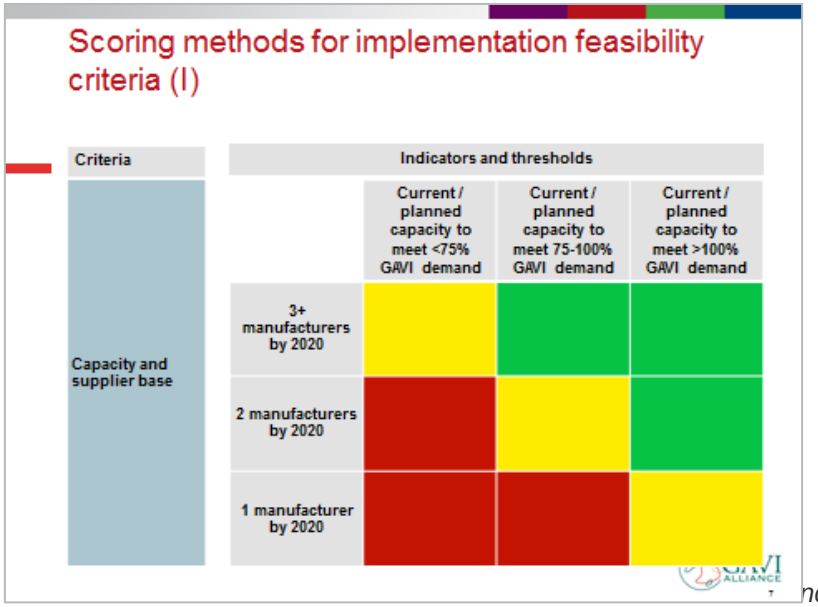
2. Develop demand forecast



Methodology for vaccine evaluation



1. **Identify vaccination scenarios**
2. **Develop demand forecast**
3. **Develop impact estimates**
4. **Develop cost estimates**



5. **Assess other disease/ vaccine features**

Methodology for vaccine prioritisation

CONFIDENTIAL DRAFT

Rabies Phase I Scorecard

Modelled scenario: supplement current country funding for post-exposure prophylaxis vaccines

Category	VIS Criteria	Phase I Indicator	Phase I Evaluation
Health impact	Impact on child mortality	~36,000 future deaths averted, 2015 – 2030	
		~600 U5 future deaths averted per 100K vaccinated population	
	Impact on overall mortality	~210,000 total future deaths averted, 2015 – 2030	
		~3500 future deaths averted per 100K vaccinated population	
	Impact on overall morbidity	~210,000 Total future cases averted, 2015 – 2030	
		~3500 future cases averted per 100K vaccinated population	
		No long term sequelae; rabies is 100% fatal	
Additional impact consid-erations	Epidemic potential	No epidemic potential	
	Global / regional public health priority	Elimination goals in Latin America and Asia	
	Herd immunity	No herd immunity	
	Availability of alternative interventions	Cost-effective prevention can be achieved through mass dog vaccination	
	Socio-economic inequity	Access to treatment can be more difficult for low income / isolated populations	
	Gender inequity	Disproportionately impacts boys	
	Disease of regional importance	Rabies prevalent across most GAVI countries	
Imple-mentation feasibility	Capacity and supplier base	11+ manufacturers, significant supply available to meet global demand	
	GAVI market shaping potential	GAVI market would be less than 10% of global market	
	Ease of supply chain integration	Intradermal packed volume of ~4 cc / dose	
	Ease of programmatic integration	Not aligned with other schedules; change in health worker practices required for intradermal administration	
	Vaccine efficacy and safety	~100% efficacy; some evidence of causal link to serious adverse events	
Cost and value for money	Vaccine procurement cost[1]	~$75M total procurement cost to GAVI and countries, 2015 - 2030	
	In-country operational cost	Low incremental burden: 4 visits (reactive vaccination), no campaign required	
	Procurement cost per event averted[2]	$350 per future death averted, $350 per future case averted	

1. Procurement cost includes vaccine, syringe, safety box, and freight 2. Scoring based on cost per future death averted

PPC_Rabies

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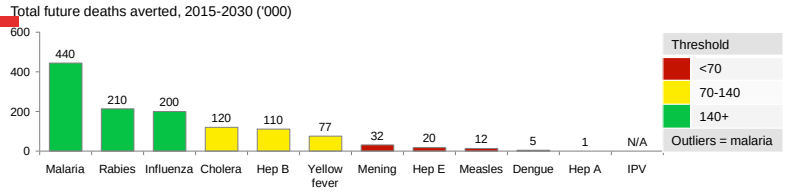
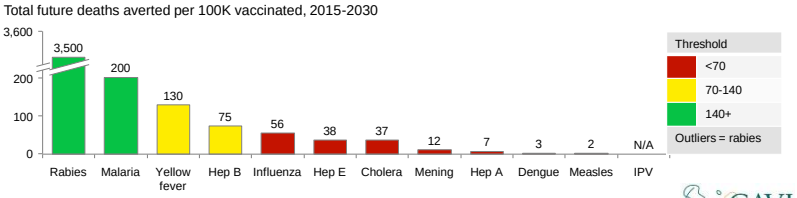
6. Populate scorecards

- Health impact
- Cost
- Implementation feasibility
- Other considerations

Comparison of total future deaths averted





Note: impact estimates based on modeled strategies

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7. Compare vaccines against selected criteria

- Health impact (mortality and morbidity) most important
- Also consider epidemic diseases and value for money

Phase I outcome: five vaccines prioritised for further analysis + IPV

Landscape: 60+ vaccines → WHO analysis: VIS candidates (15) → **VIS phase I: shortlist (6)** → VIS phase II: (?)

	Health impact	*Epidemic potential*	**Phase I assessment and expert guidance**
Malaria	✓		• High impact on mortality and morbidity • Major public health priority
Influenza (maternal)	✓		• Impact on maternal and child mortality • Opportunity to strengthen antenatal contact point
Cholera		✓	• Mortality impact + prevents epidemics; pro-poor • Oral vaccine with strong herd effects
Yellow Fever (mass campaigns)		✓	• Reduce epidemics; no alternative intervention • Regional importance; small overall investment
Rabies (Post-Exposure)	✓		• Prevents mortality of suspected cases • Pro-poor; Asia elimination goal; small overall investment
Polio (IPV)	*Special case: opportunity to contribute to eradication*		• Major global public health agenda • Time-sensitive decision

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Next steps in phase II and expected outcomes

- Next steps:
  - Consultations
  - Updated and integrated demand forecasts and impact estimates
  - Implementation feasibility and operational costs review
  - Benchmark against current GAVI vaccines
- Expected outcomes:
  - November recommendation: future vaccine priorities
  - Considerations for implementation
  - GAVI application process
  - 2018: re-evaluate vaccine landscape

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