



FINANCIAL FORECASTING Technical Briefing Session

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Responding to Country demand: Forecasting the expenditure needed

The Financial forecast

- Estimates the cost of responding to Country demand
- Provides visibility on future expenditure needs



- Informs funding decisions
 - Can Gavi afford it?
 - Programme Funding Policy sets the “rules”

Responding to Country demand

Forecasting the expenditure

Key components of the Expenditure Forecast

2016-2020 Expenditure

US\$ bn

Vaccines	6.0	75%
Cash-based Programmes	2.0	25%
Total Programmes	8.0	100%
PEF & Secretariat	1.5	
Total Expenditure	9.5	

Quantifying demand starts with estimating the number of doses each programme will need, in each country

		1st dose	2nd dose	3rd dose	Total doses		
	Birth Cohort	100% (say 1000)					
A	Surviving Infants	98% (say 980)					
B	Coverage target	90%	+	87.5%	+	85%	
A x B	Doses needed	882	+	858	+	833	2573

Illustrative example of dose calculation

Doses to administer	100
Allowance for wastage	5
	<hr/>
	105
Buffer stocks	25
	<hr/>
	130
	<hr/>

Illustrative example of dose calculation ... extended to multiple years

	Year 1	Year 2	Year 3
Doses to administer	100	100	100
Allowance for wastage	5	5	5
	105	105	105
Incountry buffer stocks	25		
Doses required	130	105	105



Adjusted for timing > Shipment Plan

Launch date ?
Coverage ?
Data reliability ?

Repeated for ~300
'Country-Vaccine' pairs

Inherent
Uncertainty !

Expenditure forecast is built from bottom up

Vaccine 1 - Penta	Commit.	2014	2015	2016	2017	2018	2019	2020
Total Doses								
Country A	Existing							
Country B	Existing							
Country C	Existing							
Country D	Future							
...								
Total Doses vaccine X								
Co-financed doses								
Country A	Existing							
Country B	Existing							
Country C	Existing							
Country D	Future							
...								
Total co-financed Doses								
GAVI funded doses								
Country A	Existing							
Country B	Existing							
Country C	Existing							
Country D	Future							
...								
Total GAVI Funded doses		x	x	x	x	x	x	x
Vaccine 2 - Pneumo								
Vaccine 3 - Rota								
Vaccine 4 - HPV etc								

1
**Country demand:
Vaccines,
Volumes, Years**

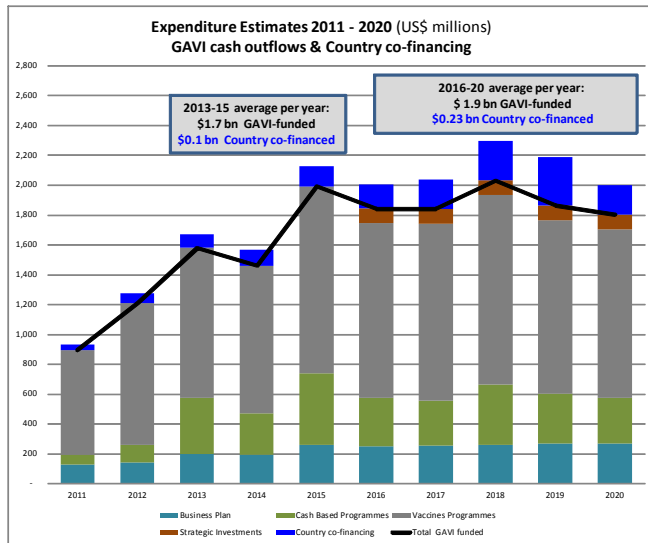
Programme Budget

	2014	2015	2016	2017	2018	2019	Total
Doses							
x Price							
Programme Budget	10	10	10	10	10	10	40

"Programme Year" to cash flow

	2014	2015	2016	2017	2018	2019	Total
2014	30%	65%	5%				
2015	3.0	6.5	0.5				10.0
2016		30%	65%	5%			
2016		3.0	6.5	0.5			10.0
2017			30%	65%	5%		
2017			3.0	6.5	0.5		10.0
2018				30%	65%	5%	
2018				3.0	6.5	0.5	10.0
Cash flow	3.0	9.5	10.0	10.0	7.0	0.5	40

2
**Prices &
Cash-flow
timing**



3
**Expenditure
Forecast**

Allowing for the uncertainties

- Multiple factors cause **uncertainty** (e.g. timing of introduction, actual coverage, price evolution, etc.)
- Forecast must serve diverse objectives:
 - **Prudence**, when committing to new programmes
 - **Probability**, when forecasting needs spanning many years
- To date, prudence has been highly weighted
- Now seeking to better balance that with probability
 - Range estimates around a (less conservative) centre line
 - Tradeoffs between simplification and functionality

Output from the forecast: Projected expenditure by programme type

Expenditure estimate 2016-2020 Cash flow basis, US\$ million	Existing Programmes		Estimate for future demand	Total	Annual Average
	Endorsed	Provision for Extensions			
Programmes:					
Penta	61	959	-	1,020	13%
Pneumo	127	2,124	251	2,503	31%
Rota	98	415	239	752	9%
Measles-Rubella	258	-	271	529	7%
Measles SIA	4	-	6	10	0%
HPV - routine	40	36	281	357	4%
Typhoid	-	-	136	136	2%
IPV/Polio	84	121	-	204	3%
Other vaccines	152	95	274	520	6%
Total Vaccine Programmes	824	3,750	1,458	6,031	75%
Health systems strengthening	601	-	706	1,308	
Campaign operational costs	129	-	339	467	
Vaccine introduction grants (incl. IPV)	9	-	133	142	
Measles SIA operational costs	8	-	1	9	
All other cash (ISS, CSO, HPV etc)	28	-	10	37	
HSIS	774	-	1,189	1,963	
CCEOP	-	-	50	50	
Total Cash-based Programmes	774	-	1,239	2,013	25%
Total Programmes	1,598	3,750	2,697	8,045	100%
Partners		916		916	
Secretariat		557		557	
PEF & Secretariat (Business plan)		1,473	-	1,473	
Total Expenditure	1,598	5,223	2,697	9,518	
2016-2020	\$6.8 bn		\$2.7 bn	\$9.5 bn	

Annual Average

\$1.2 bn

\$0.4 bn

\$1.6 bn

\$0.3 bn

\$1.9 bn

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← Vaccines

← HSIS/CCEOP

← PEF/Secretariat

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Existing Future

Responding to Country demand

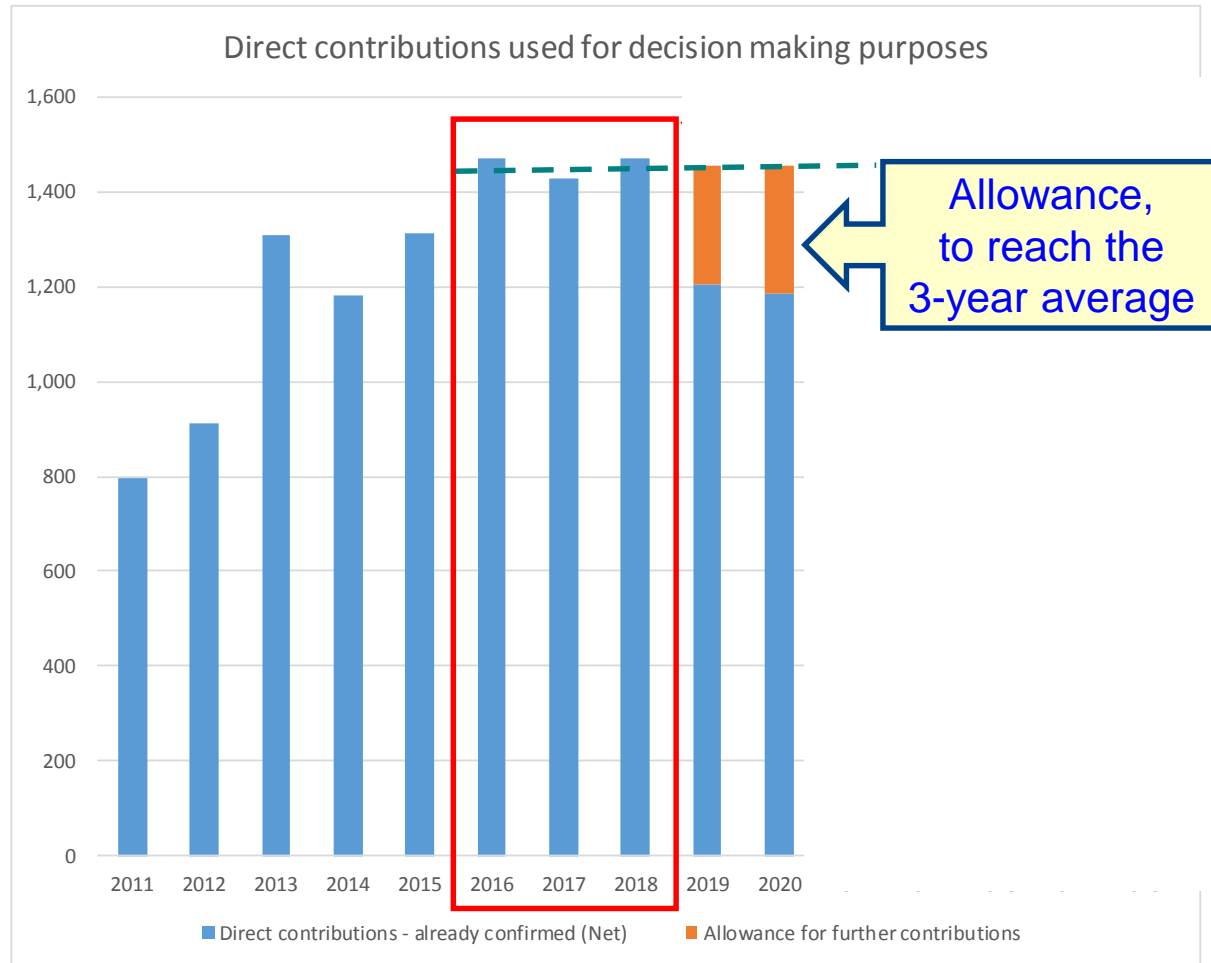
Forecasting the Resources

Resources available to Gavi

Projected resources 2016-2020 (as indicated to the Board in December 2015)

US\$ millions	2016-2020	Annual Avg.
Resources Available		
Direct contributions - confirmed	6,761	1,352
Direct contributions for IPV	252	50
IFFIm Proceeds	1,314	263
AMC Proceeds	350	70
Investment Income	180	36
Total Inflows	8,857	1,771
Decrease/(increase) Cash & Invest Reserve	31	6
Assured Resources	8,888	1,778
Allowance for Further Contributions	518	104
	9,406	1,881
Add: Available from 2015 (per December 2015 forecast)	444	89
Qualifying Resources	9,850	1,970

Estimating the allowance for further contributions ... important for programme funding decisions



Responding to Country demand

Informing funding decisions

Resource availability for funding decisions

– 2 key requirements

1: As a prerequisite to the approval of any new programmes, an amount of Qualifying Resources shall be set aside to fully cover all commitments arising in the first 3 years

Cash flow basis US\$ millions	2015	First 3-year period			Second 3-year period		
		2016	2017	2018	2019	2020	2021*
Total Expenditure to meet demand		1,869	1,933	2,039	1,855	1,822	1,800
Proposed new programmes / investments		15	9	9	9	9	
Total Expenditure		1,884	1,942	2,048	1,864	1,831	1,800
Qualifying Resources available		1,761	1,818	2,055	1,884	1,888	1,800
Additional available / (required) - for year		(123)	(124)	7	20	57	0
Additional available - cumulative	444	321	197	203	223	280	280
		→ 2018			→ 2021		

Resource availability for funding decisions

– 2 key requirements

1: As a prerequisite to the approval of any new programmes, an amount of Qualifying Resources shall be set aside to fully cover all commitments arising in the first 3 years

2: Also provide visibility on the following 3 years ... so the Board can take account of the longer-term implications

Cash flow basis US\$ millions

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Going forward

- Forecast will be updated for December Board meeting
- Briefing then will explain the new features of the forecast

Thank you!

Board meeting 22-23 June 2016

THANK YOU



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