

# CEO Board presentation

Seth Berkley MD, 22 June 2016



2011

2020

Gavi 3.0

TRANSITION

Gavi 4.0

# IMMUNISATION ON THE GLOBAL AGENDA





# A transition period

- Decade of Vaccines: midpoint
- New leaders: US President, WHO Director-General, UN Secretary-General, German Chancellor?
- New sustainable development goals – vaccine indicator?
- Global focus on outbreaks



## G7 summit, Japan, May 2016



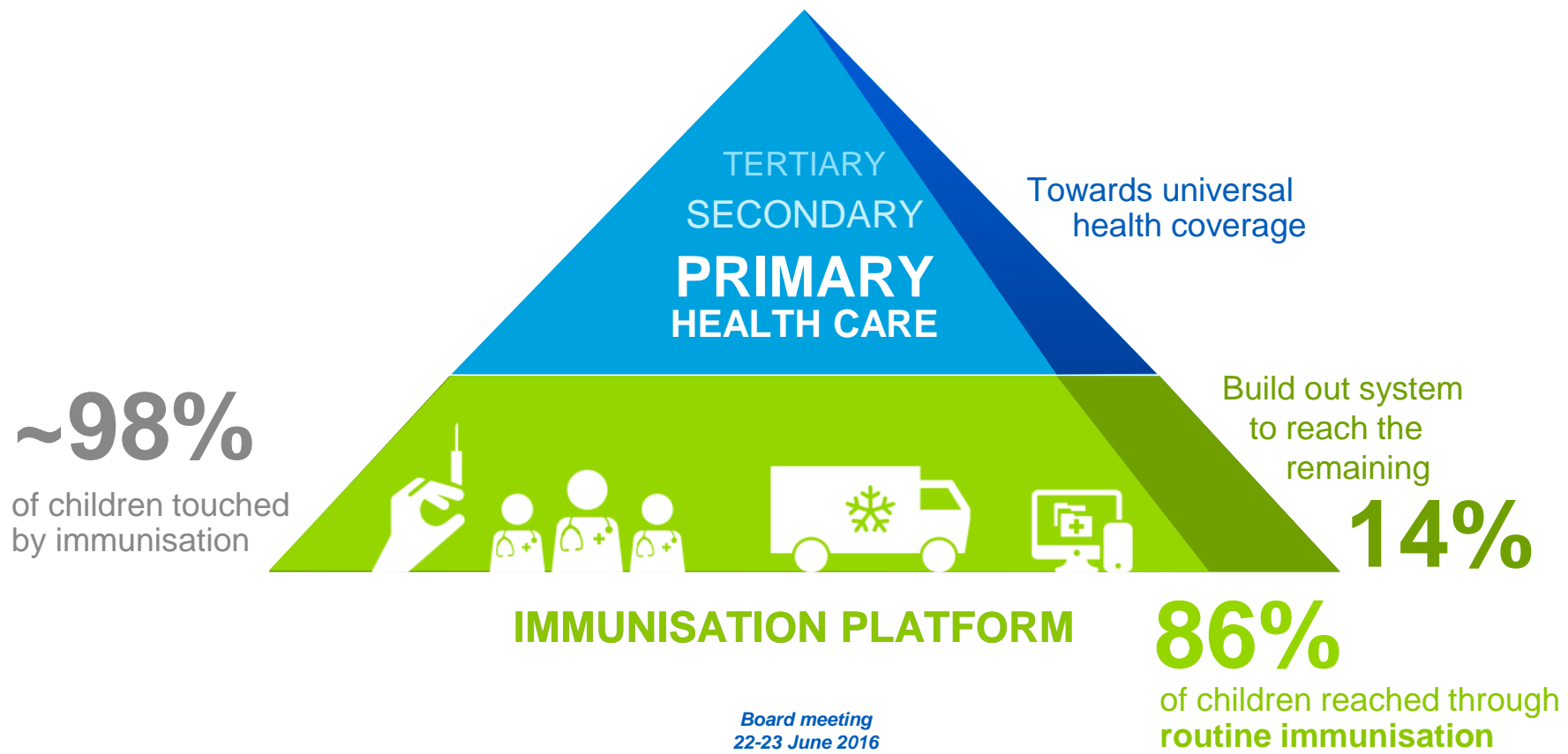
“The promotion of UHC requires provision of services to protect and improve the health of all individuals throughout their life course... In this regard, we welcome platforms such as Gavi the Vaccine Alliance”

G7 Leaders’ Declaration

Credit: Japanese cabinet

*Board meeting  
22-23 June 2016*

# Immunisation: a platform for universal health coverage



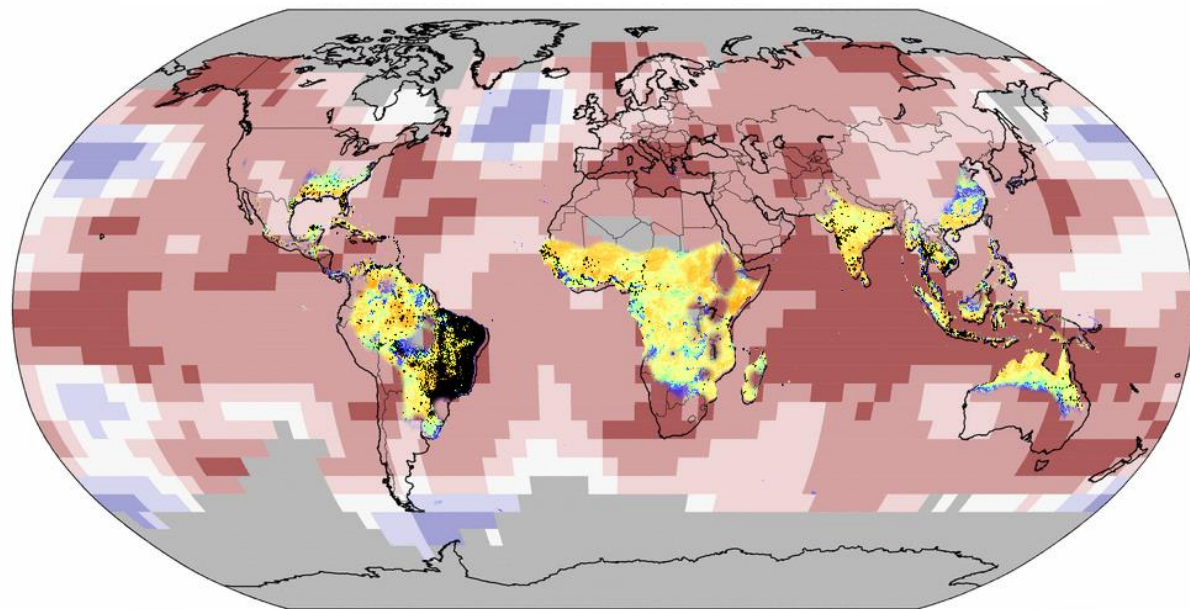
## Outbreaks threaten health systems: Ebola example

- Two-year anniversary of outbreak, February 2016
- Flare-ups in Liberia and Guinea (latest in April) with good emergency response from the countries
- 300,000 doses through Gavi's advance purchase commitment available for use in clinical trials and emergencies





# Climate change and distribution of *Aedes Aegypti*



*Aedes Aegypti*



## The global distribution of *Aedes Aegypti*

Occurrence of *Aedes Aegypti* plotted on prediction surface (from 0 to 1 yellow) at a spatial resolution of 5 km x 5 km

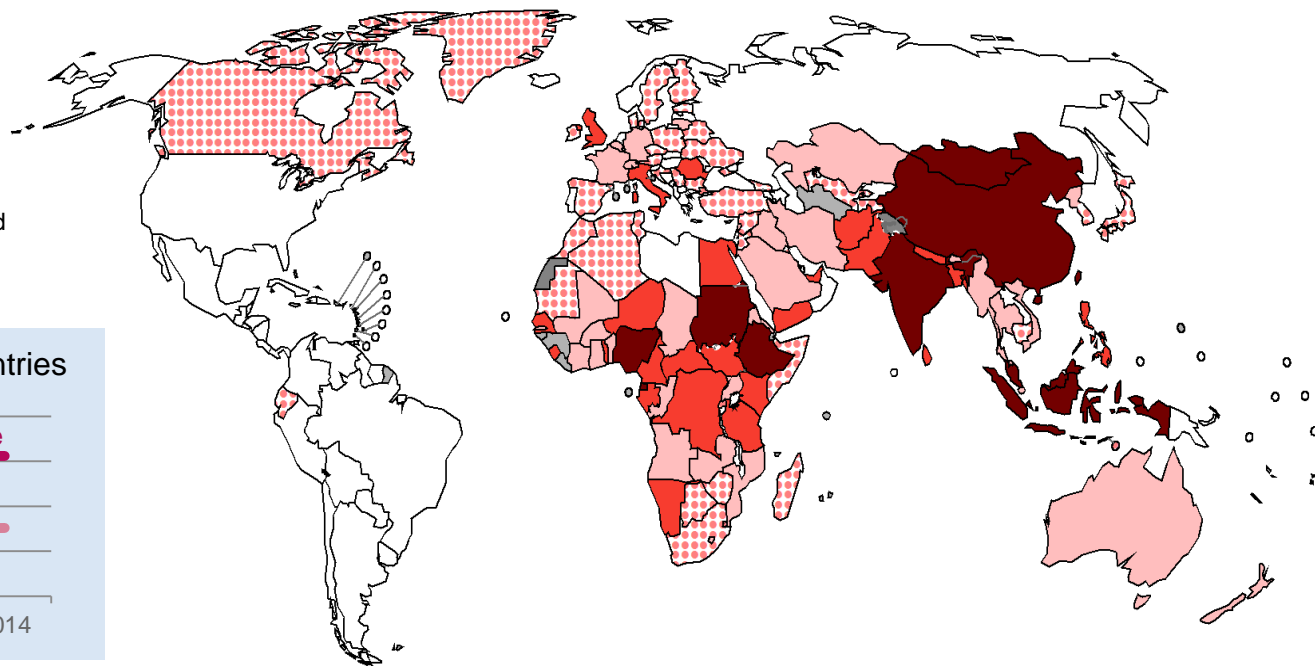
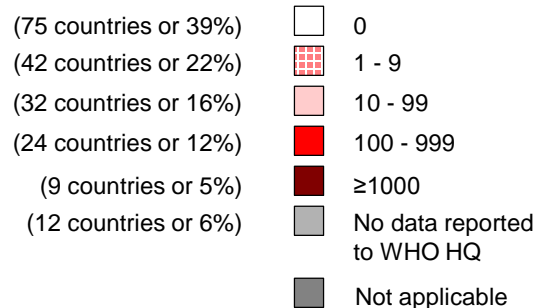
Source:

<https://elifesciences.org/content/4/e08347/figure1/figure-sup4>

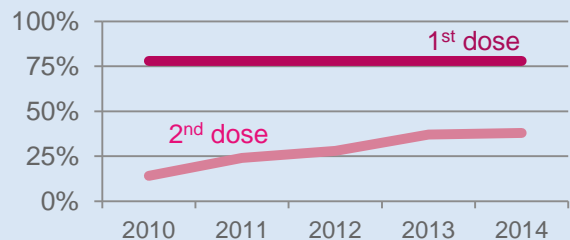


# Reported measles cases with onset date from Nov 2015 to April 2016 (six-month period)

## Rate per 1,000,000 population



## Measles vaccine coverage in Gavi countries



† Data Source: RDC Bulletin surveillance rougeole 14 juin 2016

§ Data source: Somali EPI/POL Weekly Update Week 23

Data source: surveillance DEF file

Data in HQ as of 13 June 2016

**Board meeting**  
22-23 June 2016

The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement. ©WHO 2016. All rights reserved.

# Progress on Gavi's new measles-rubella strategy

- Implementation: applications from September, implemented from 2017
- Measuring coverage and surveillance: now part of joint appraisals
- Readiness assessments & coverage surveys: mandatory before and after campaigns
- Stronger collaboration with partners: e.g. risk assessments, lessons learnt
- Early work on modelling: for geographic areas, target age groups
- Already higher campaign coverage: e.g. Nigeria: 84.5% in 2015, from 74.5% in 2013

## EXECUTIVE SUMMARY, MEASLES MIDTERM REVIEW REPORT June 15, 2016

### Overarching conclusions

- The Global Measles and Rubella Strategic Plan, 2012 – 2020 set the goal of achieving measles and rubella elimination in at least five World Health Organization (WHO) regions by 2020 through the implementation of five core strategies. However, with the exception of reaching rubella elimination in the Region of the Americas, current trends indicate that progress toward this goal is not on track.
- Although all six WHO regions have measles elimination goals and the ultimate vision is of a world free of measles, it is premature to set a timeframe for eradication at this point. A review should be undertaken in 2020 to determine formal goals with timeframes for achievement.
- Strengthening of immunization systems is critical to achieving regional elimination goals. There must be a focus on how working to achieve measles and rubella elimination can help strengthen health systems in general and immunization systems in particular.
- Measuring coverage with measles and rubella containing vaccines, while important, is not the best indicator of progress towards measles/rubella control/elimination. Disease incidence, in the presence of an effective surveillance system, is the most important indicator of progress. The presence or absence of measles is one of the best indicators of overall immunization program performance.
- There is an urgent need to strengthen the collection and use of surveillance data to better guide program strategy and implementation.

## New initiatives to tackle health emergencies

- New WHO Outbreaks and Health Emergencies Cluster
- World Bank's Pandemic Emergency Financing Facility
- WHO Contingency Fund for Emergencies
- WHO R&D Blueprint
- Coalition for Epidemic Preparedness & Innovation



## Outbreak preparedness and response: Gavi's role

Will revert to the Board over coming year on:

- Support for vaccine stockpiles
- Role in humanitarian emergencies and fragile settings
- Yellow fever strategy
- Meningitis (timing tbd)



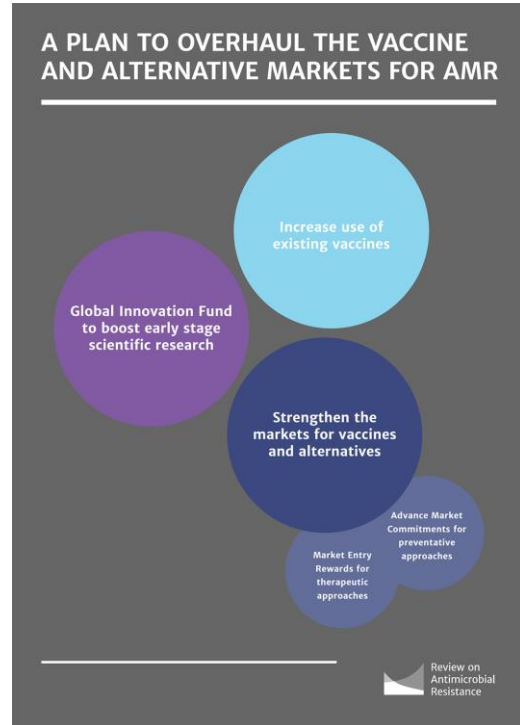
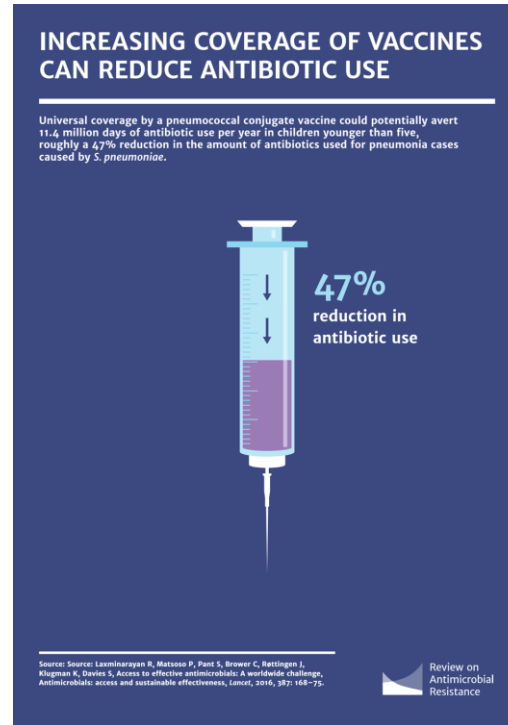
Further investments in vaccines against potentially epidemic diseases (e.g. Ebola 2<sup>nd</sup> generation and cholera) to be reviewed as part of 2018 Vaccine Investment Strategy



# Vaccines help reduce antimicrobial resistance

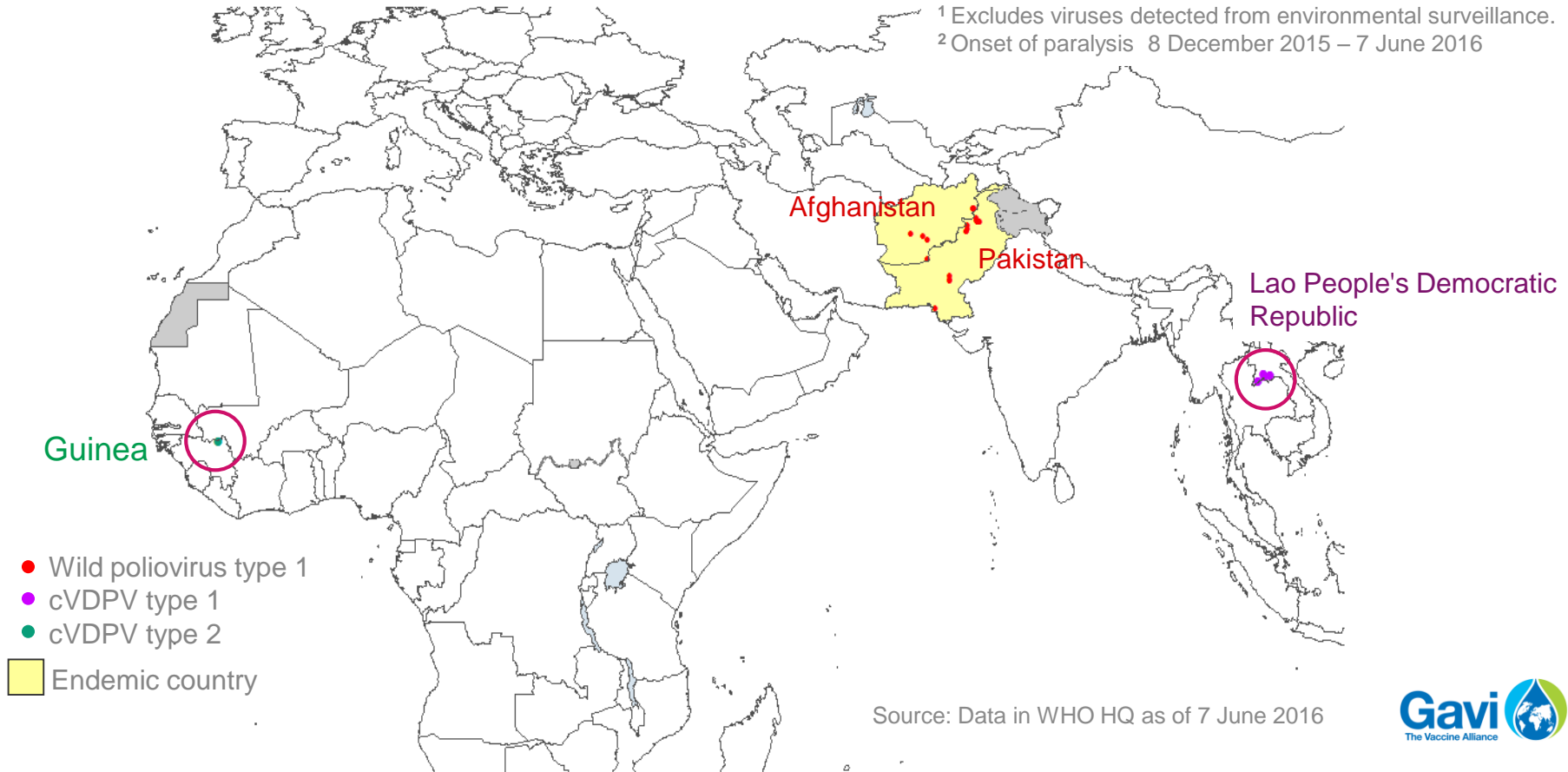
## Review commissioned by UK government

- Vaccine report: need to **use vaccines more widely**; value of **pneumococcal vaccine** in reducing antimicrobial resistance
- Summary report: **Gavi model** as example of how new antibiotics could be developed, e.g.:
  - Overcoming market failures
  - Encouraging innovation



# Wild poliovirus & cVDPV cases<sup>1</sup>, previous six months<sup>2</sup>

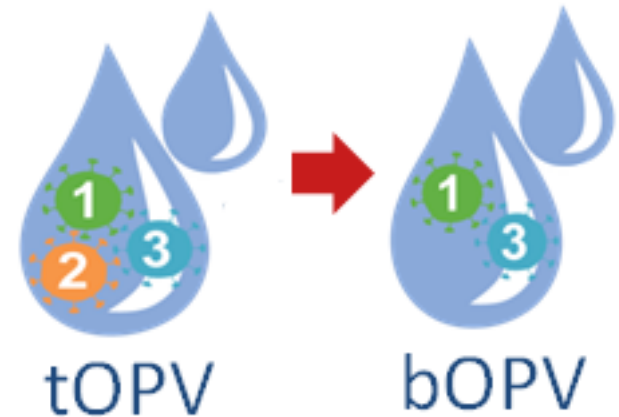
<sup>1</sup> Excludes viruses detected from environmental surveillance.  
<sup>2</sup> Onset of paralysis 8 December 2015 – 7 June 2016



Source: Data in WHO HQ as of 7 June 2016

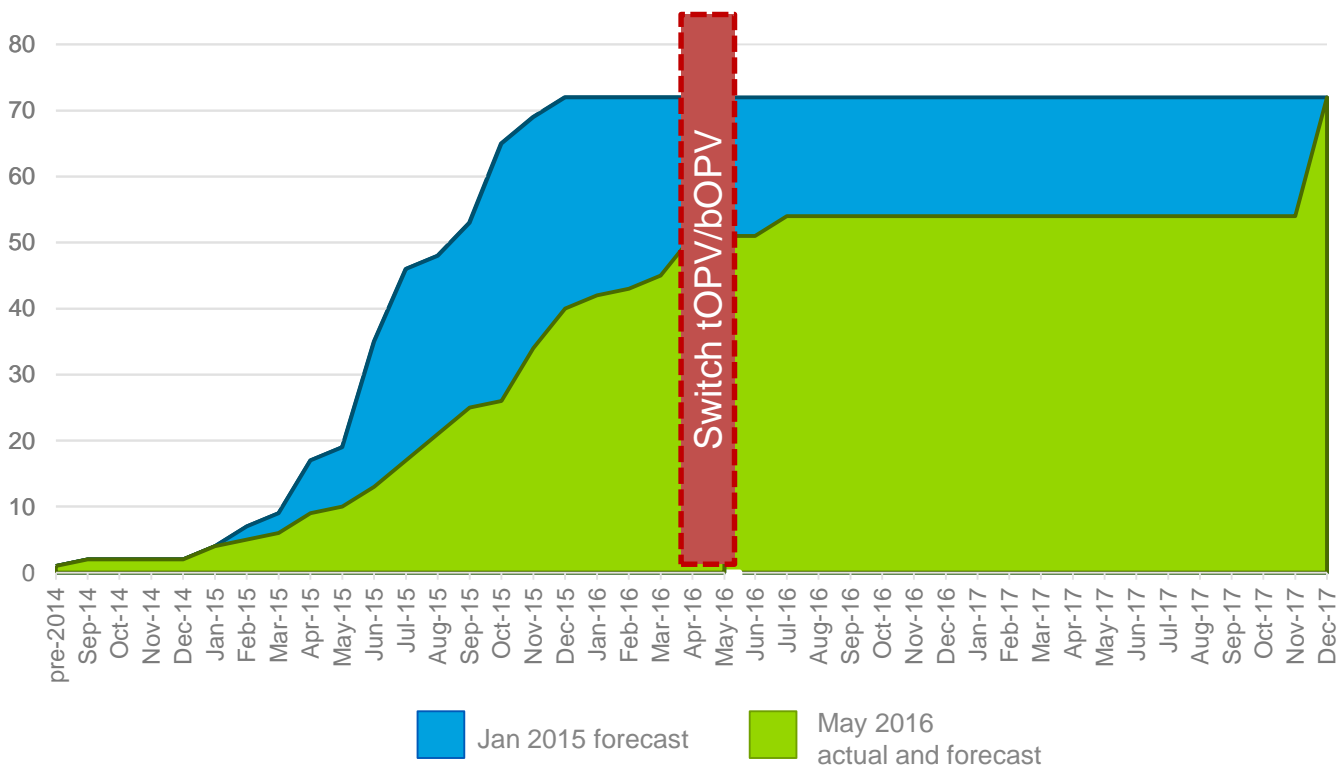
## Switch from trivalent to bivalent oral polio vaccine

- April/May: all countries and territories switched
- Environmental samples of type 2 found in Egypt, Kenya, Nigeria, India
- Bivalent OPV doesn't protect against type 2
- Need for strong routine coverage with inactivated polio vaccine (IPV)



# Supply shortages delay IPV introductions

Number of Gavi-supported countries that have introduced inactivated polio vaccine





## Support for IPV post-2018

- Committed to support IPV through 2018 when Board will review
- If funding is made available, Gavi support to continue until Endgame target for stopping vaccination/exit strategy is developed
- Extension of Endgame led by Global Polio Eradication Initiative (GPEI)
- Expect GPEI to initiate discussions with donors on IPV support





# 2011-2015 RESULTS

*Board meeting*  
22-23 June 2016

## Reporting back on 2011-2015

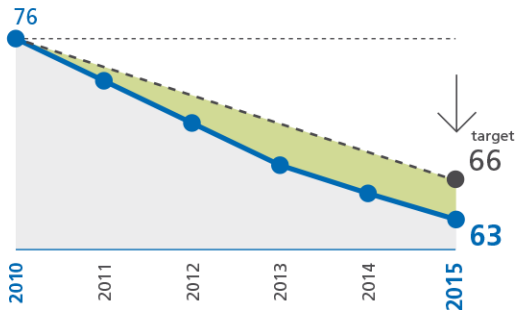
- 2015 Annual Progress Report
- 2011-2015 Review: highlighting successes and challenges



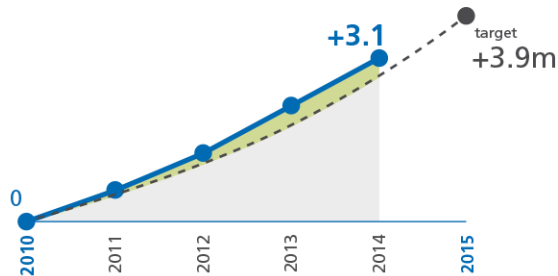
*Board meeting  
22-23 June 2016*

# Three mission indicators all on track

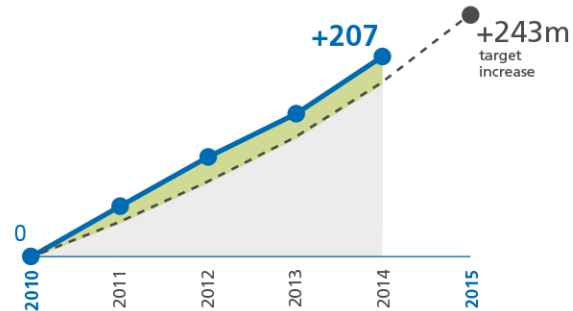
**Under-five mortality rate** in Gavi-eligible countries  
(per 1,000 live births)



**Number of future deaths averted**  
(millions)



**Number of children immunised**  
(millions)





# Vaccine introductions

Over **200** introductions 2011–2015

**70** introductions in **2015** –  
nearly 50% more than in 2014

Pneumococcal  
 Rotavirus  
 Inactivated polio  
 Human papillomavirus (demo)  
 Human papillomavirus (routine)  
 Meningitis A  
 Japanese encephalitis  
 Measles 2<sup>nd</sup> dose  
 Measles SIA  
 Measles-rubella



# Advance Market Commitment: impact study

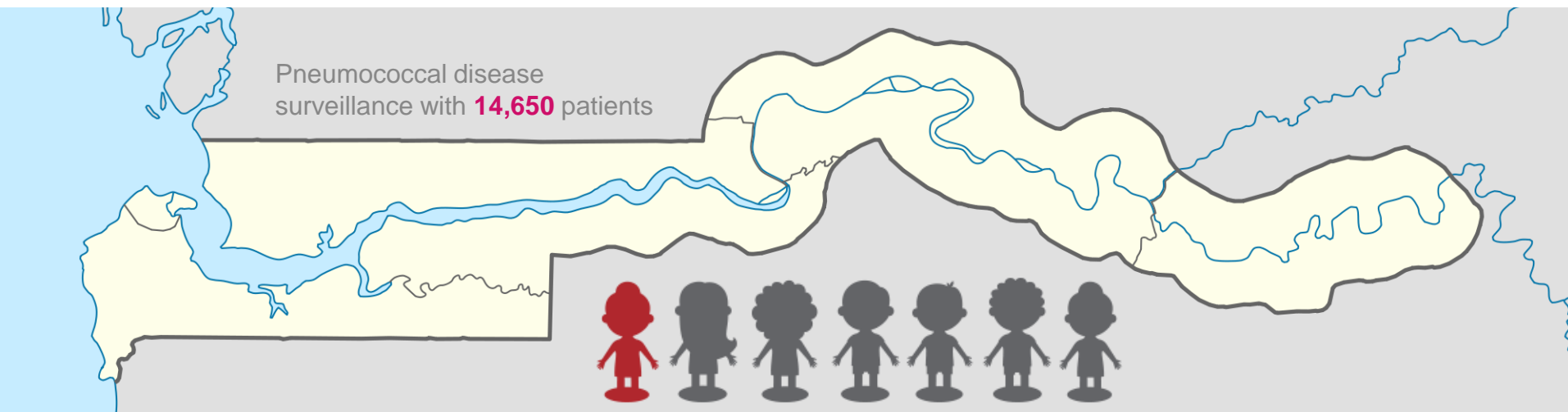
Innovative finance mechanism: US\$ 1.5 billion commitment from 6 donors to accelerate access to pneumococcal vaccines

## Main findings:

- Accelerated coverage in 50+ countries
- 6m+ pneumococcal disease cases, 230,000+ child deaths prevented by 2015
- 3m child deaths averted by 2030
- Increased available supply despite shortages
- Did not succeed in materially accelerating development of new products

## Pneumococcal vaccine impact in the Gambia

If children in the Gambia develop serious pneumococcal pneumonia, sepsis or meningitis they have a **1 in 7** chance of dying



**PCV** in the Gambia **reduced** severe pneumococcal pneumonia, sepsis and meningitis by **55%**

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## Meningitis A vaccine progress

- Campaigns in 16 countries in Africa's meningitis belt
- 235 million people immunised by end 2015
- Meningitis A eliminated as public health problem in the region
- Focus shifting to routine introductions: Sudan, Ghana and Mali planning to introduce this year
- Delayed routine introductions problematic
- Meningitis C outbreaks, e.g. Niger, Nigeria

### Impact:

Number of meningitis A cases:

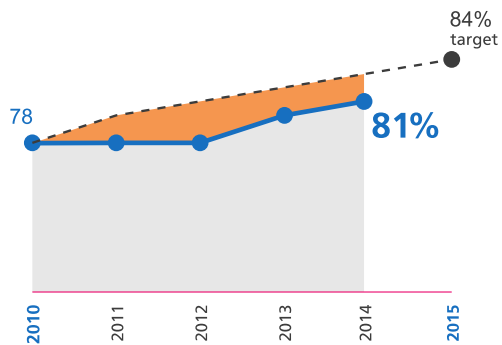
	in 2008	in 2015
<b>Niger</b> Meningitis	842	0
<b>Mali</b>	16	0
<b>Burkina Faso</b>	156	4



# Coverage and equity challenges

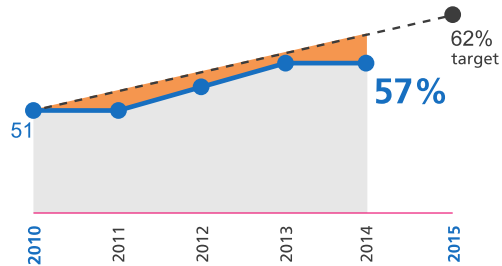
Unlikely to meet 2015 targets for coverage, equity and drop-out rate

DTP3 coverage (%)

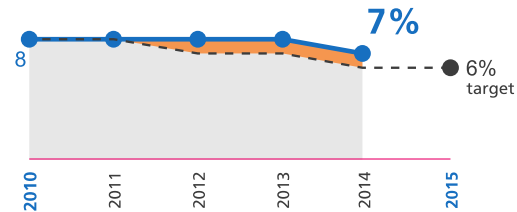


Equity in immunisation coverage (%)

Proportion of countries meeting the minimum equity benchmark

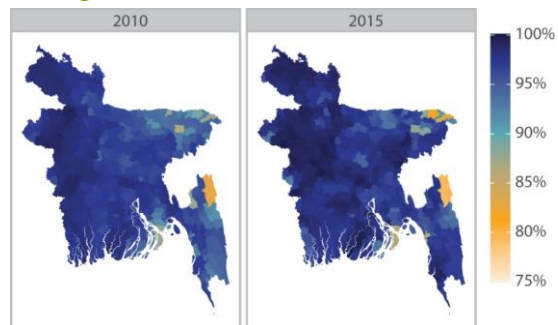


Percentage point difference between DTP1 and DTP3 (%)

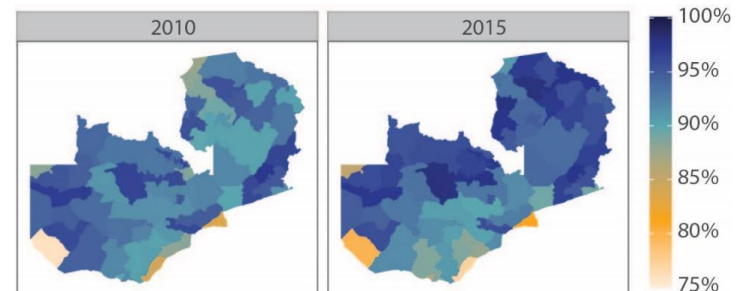


# Increases in 3<sup>rd</sup> dose pentavalent coverage, 2010-2015

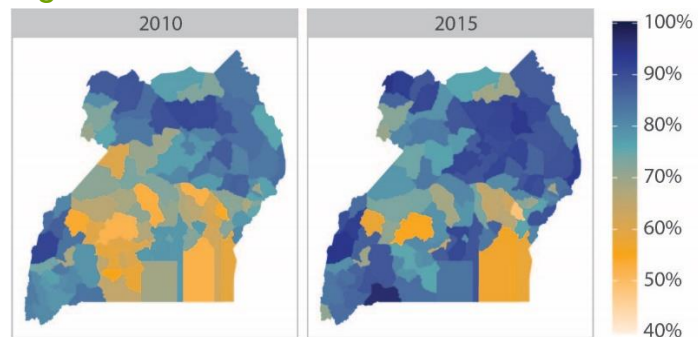
## Bangladesh



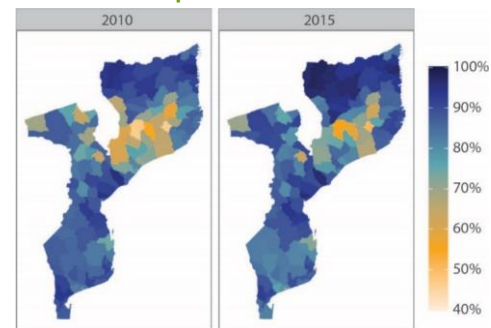
## Zambia



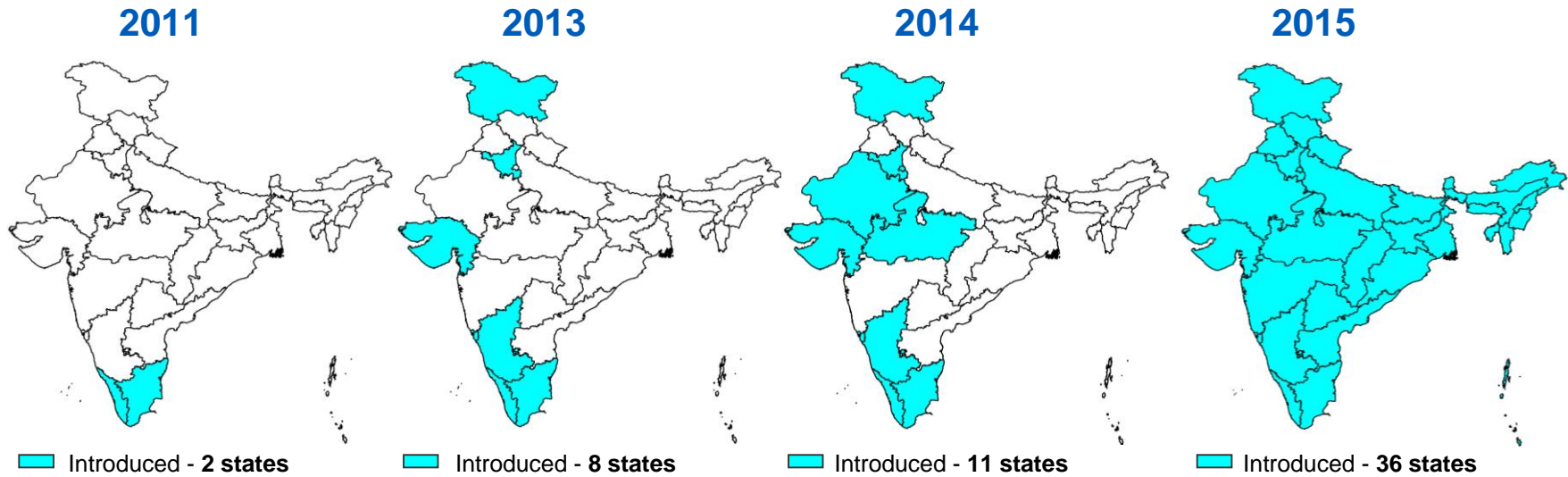
## Uganda



## Mozambique

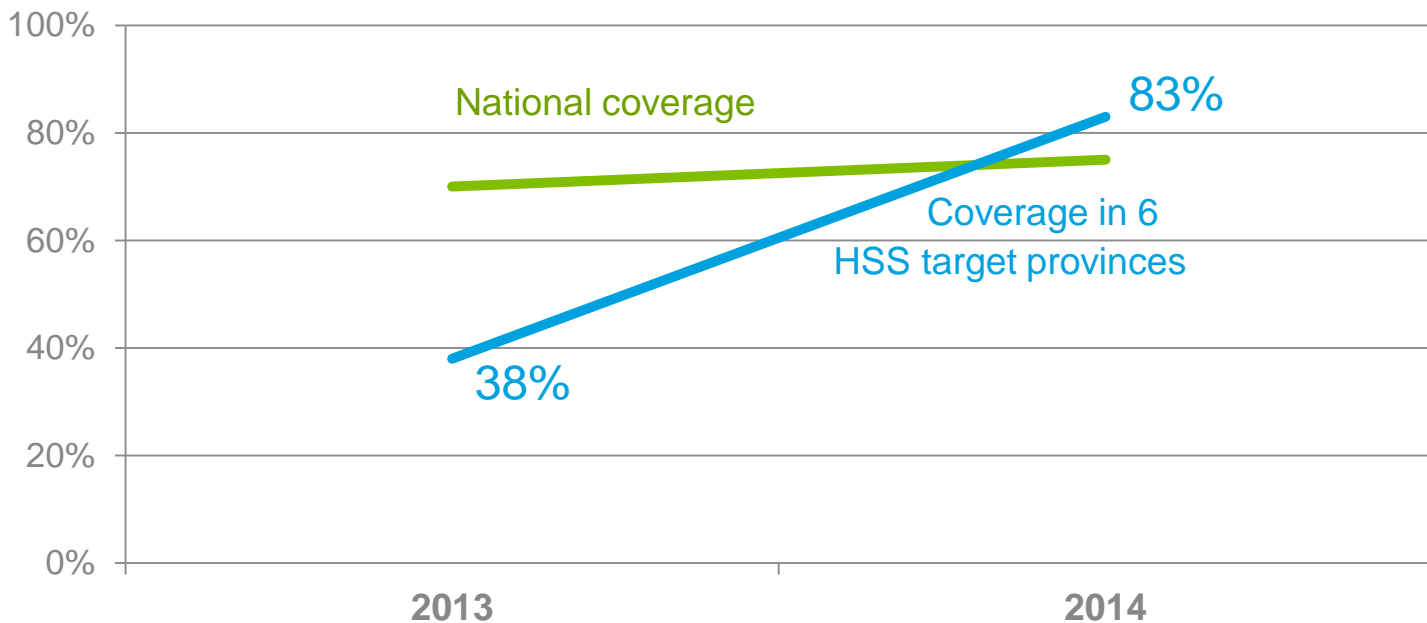


# India completes pentavalent vaccine roll-out in all states



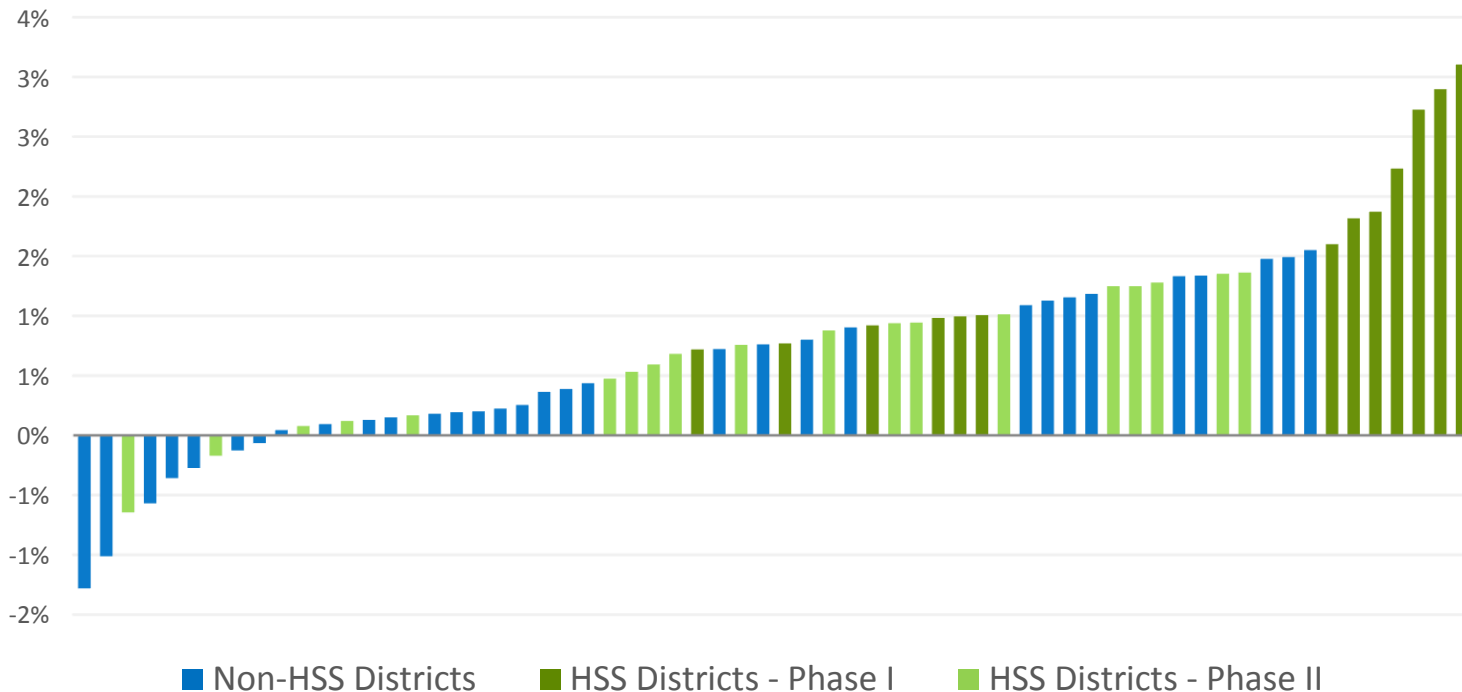
# HSS results: Afghanistan example

## DTP3 coverage



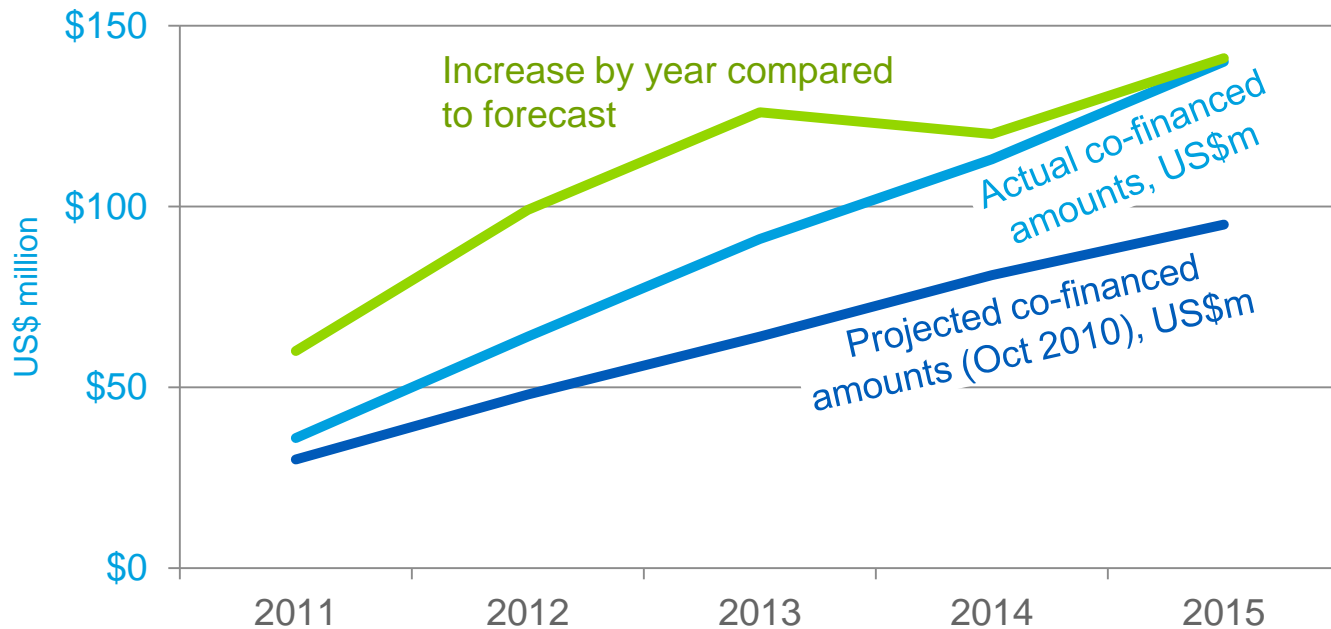
# Bangladesh: coverage improvements linked to HSS support

Changes in DTP3 coverage relative to HSS support phase, 2010-2014





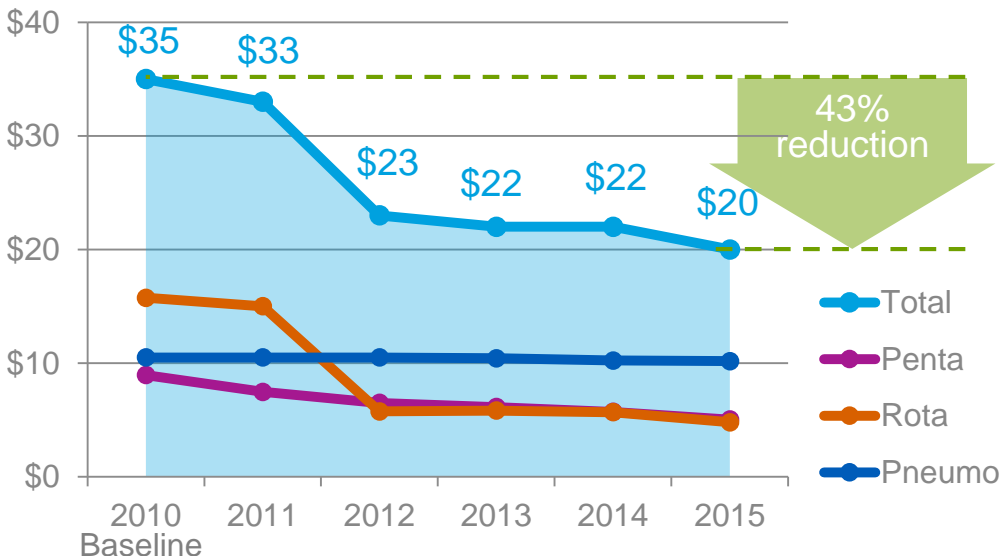
## Improvements in country co-financing



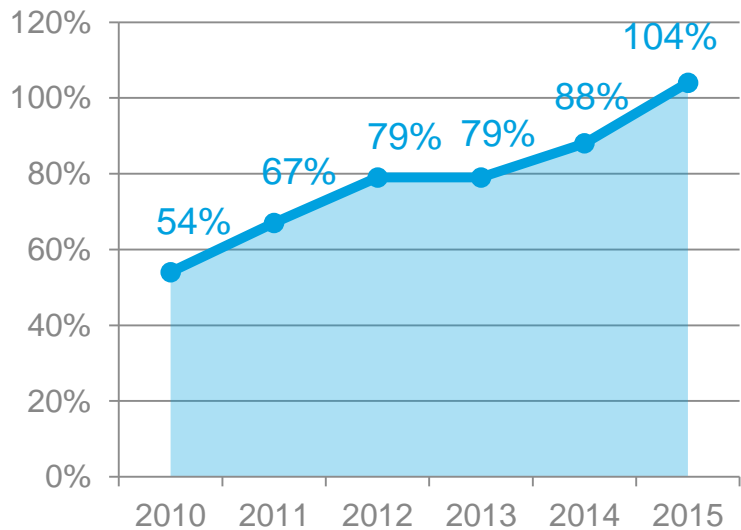
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# Market shaping results

Cost to fully immunise a child with pentavalent, pneumococcal and rotavirus vaccines (US\$)

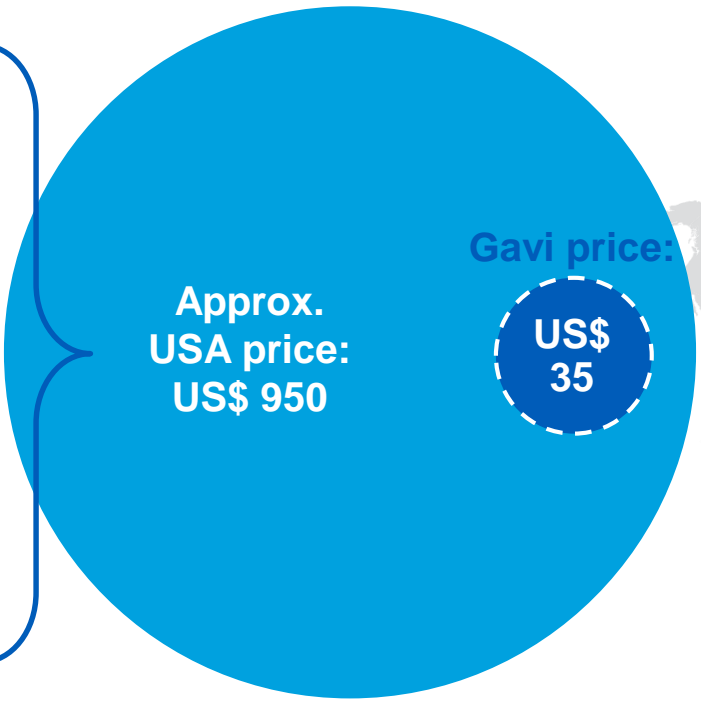
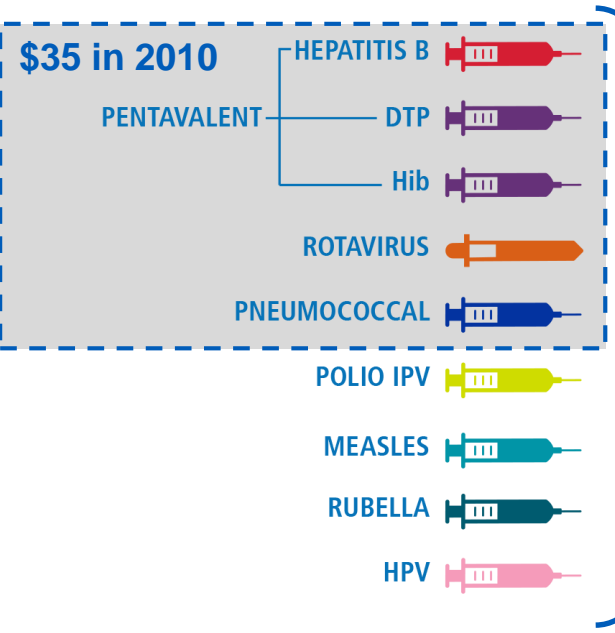


Security of supply: products offered as % of 2015 target

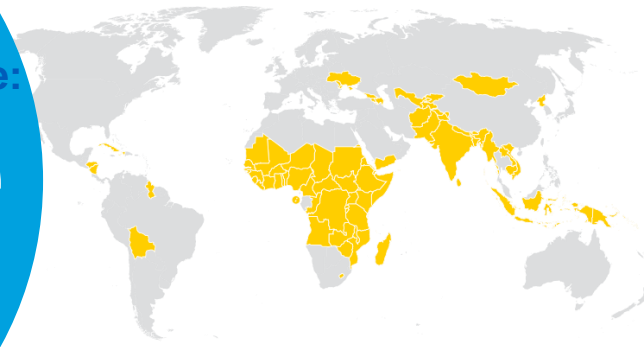


# Gavi prices start from low baseline

Cost of full course of:



Purchasing vaccines for 60% of world's birth cohort



Sources: CDC vaccine price list November 2015; UNICEF Supply Division, March 2016

# Vaccine supply shortages

Cholera vaccine



Inactivated polio vaccine



Yellow fever



# DELIVERING ON THE NEW STRATEGY

- Stronger country focus
- Coverage and equity
- Political will
- Long-term sustainability



## Liberia: double launch



- HPV demonstration project
- Rotavirus vaccine

# Republic of the Congo



- Inactivated polio vaccine

# Nepal



- HPV demonstration project



## Cambodia



- Japanese encephalitis vaccine

# Bolivia



- Inactivated polio vaccine

## Democratic Republic of Congo



- Meningitis A vaccine campaign



# Kenya



- Measles-rubella vaccine

# Kyrgyzstan



- Pneumococcal vaccine

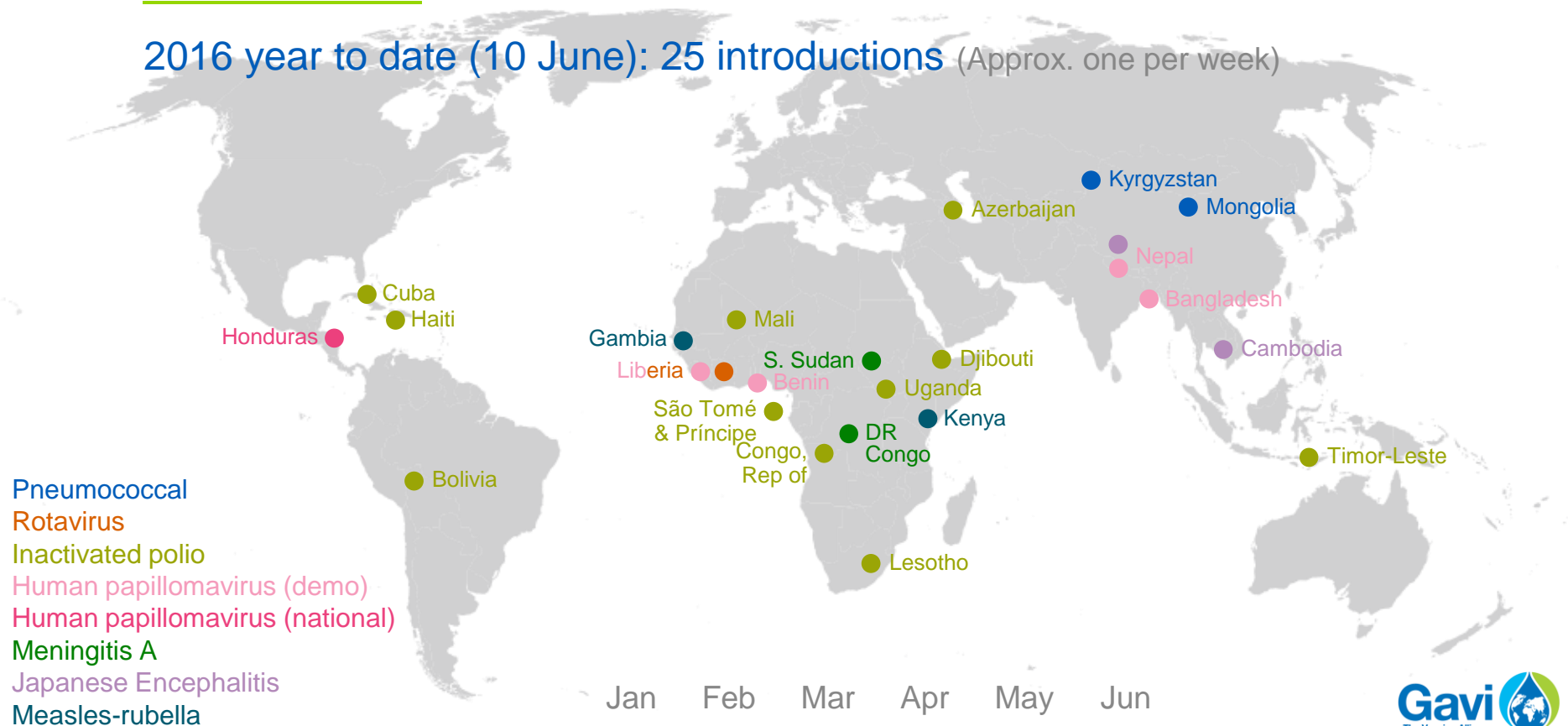
# Honduras



- HPV vaccine – national introduction

# Vaccine introduction update

2016 year to date (10 June): 25 introductions (Approx. one per week)





# Building political will to improve coverage, equity and sustainability

## Increasing engagement with finance ministers and advocates



**Saving lives saves dollars**

Who is responsible for child health in government? The answer is everyone....



**Shine a Light on the Gaps**

How access to digital financial services changes the future for smallholder farmers in Africa

*“I call on every Head of State across Africa to prioritise access to vaccination in each and every community.”*

President Kikwete, Global Ambassador for Immunisation, African Union Summit, Addis Ababa, January 2016



# Immunisation's return on investment

3x



Public  
infrastructure



The Economic Benefits of Public Infrastructure Spending in Canada.  
The Centre for Spatial Economics,  
September 2015

7x



Pre-school  
education



The rate of return to the HighScope Perry Preschool Program.  
Department of Economics, University  
of Chicago, April 2009

9x



Community  
health workers



Strengthening primary health care through community health workers...  
Dessaiegn H, Chambers R, Clinton C, Phumaphi J, Sirleaf J, Evans T, et al. 2015



48x

(full income approach,  
in Gavi-supported  
countries)

18x

(cost of illness, in  
Gavi-supported  
countries)

Immunisation



Return on investment from childhood immunizations in low- and middle-income countries, 2011-20.  
Health Affairs. 35(2):199-207. Ozawa S, Clark S, Portnoy A, Grewal S, Brenzel L, Walker D. 2016



# Country focus key to improving coverage and equity

1

## Understanding country needs

- 72 in-country Joint Appraisals in 2015
- Articulation of key barriers and needs

2

## Responding to country needs

- Proposals from UNICEF/WHO seek to respond to joint appraisals
- Initial submissions include ~ 200 focused staff in country offices

3

## Countries at the design table

- Improved harmonisation
- Greater transparency
- Enhanced accountability

## High-level country visits

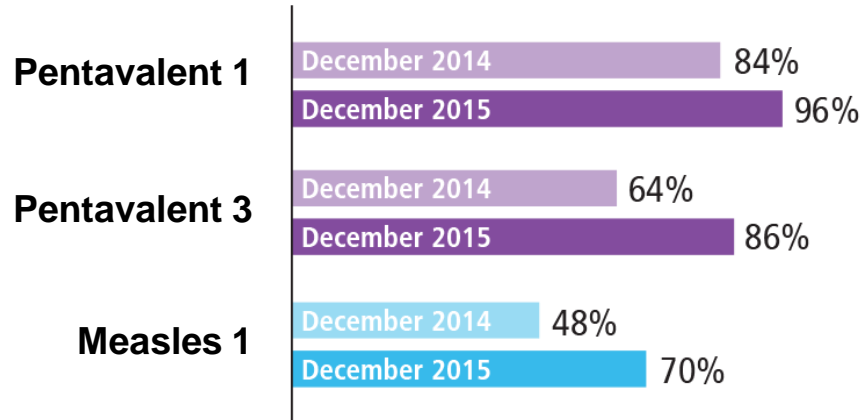
- **Pakistan:** focus on coverage and equity
- **India:** new partnership - coverage and equity, market shaping, new vaccines
- **Tanzania:** Programme & Policy Committee meeting in Arusha



## Priority country: Pakistan

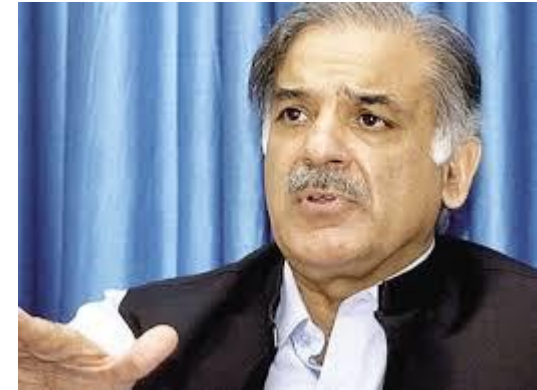
### Punjab province: data and political leadership essential for accountability and results

Coverage (children aged 12 months) %



**Pentavalent 3rd and measles 1<sup>st</sup> dose increased > 20% in one year**

Source: Nielson (Dec 2014 & Dec 2015)



Chief Minister Muhammad  
Shehbaz Sharif

# Priority country: India

Immunisation under stewardship of the Prime Minister



Prime Minister reviewed progress of Mission Indradhanush (February 2016)



***Mission Indradhanush: PM Modi calls for aggressive action plan to cover all children for immunisation in a specific time-frame***

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## Partnership agreement signed

Sets out commitments of the Government of India and Gavi

- Gavi support of up to US\$ 500m vaccine/cash allocation
- Government's commitment to sustain and scale up programmes
- Performance indicators for vaccines and health system support to be developed as part of tailored proposal review process



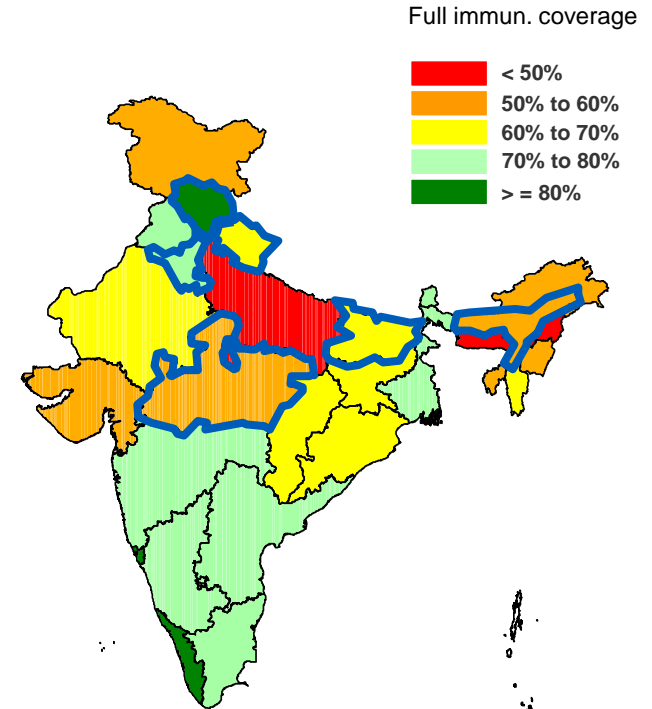
# Pneumococcal vaccine fast-tracked, rotavirus launch started

## Pneumococcal

- February: ministerial group approved national introduction
- 6 states tentatively planned for Gavi-supported first phase in 2017-19, accounting for >30% of pneumococcal deaths in country

## Rotavirus

- March: Government funded first phase of rotavirus vaccine launch with indigenous vaccine





## Priority country: Madagascar

Coverage & equity – lessons learnt:

### **Prioritise**

- Use data to identify low coverage districts

### **Be open to new partners**

- Additional expertise may be needed to implement recommendations

### **Learn from the past**

- More regular monitoring by partners
- Specific strategies for challenging contexts – more tailored approach



## HPV vaccine programme reboot

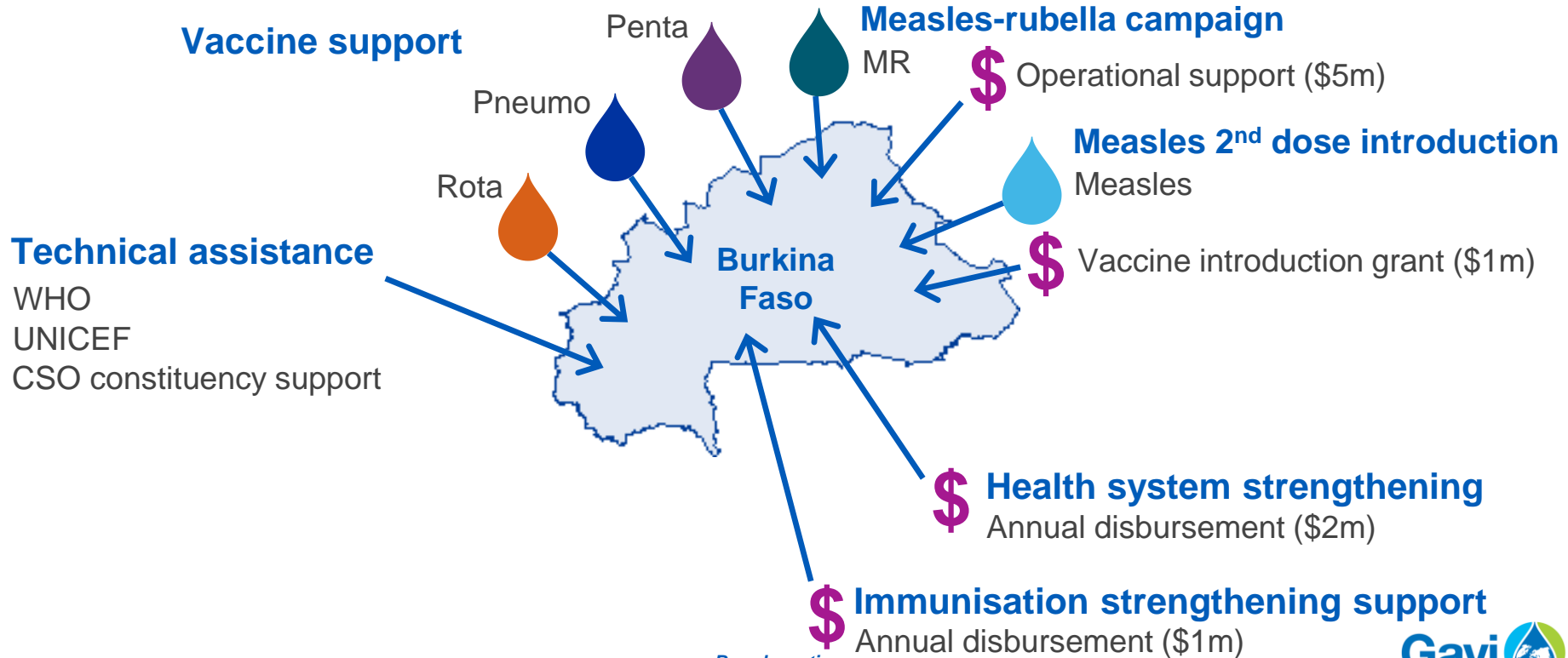
- 28 countries approved for HPV demonstration programmes
- New programme for January 2017 IRC submission (tbd)
- Two changes already identified, taking onboard lessons learned:
  - **One application** for demonstration programmes and national introductions – reduces delays, ensures country commitment from the start
  - **Pre-application workshop** to identify sustainable implementation strategies – helps countries better understand cost and coverage implications
- More changes to come





## Multiple forms of immunisation-related country support

Example: Alliance support to **Burkina Faso** in 2014

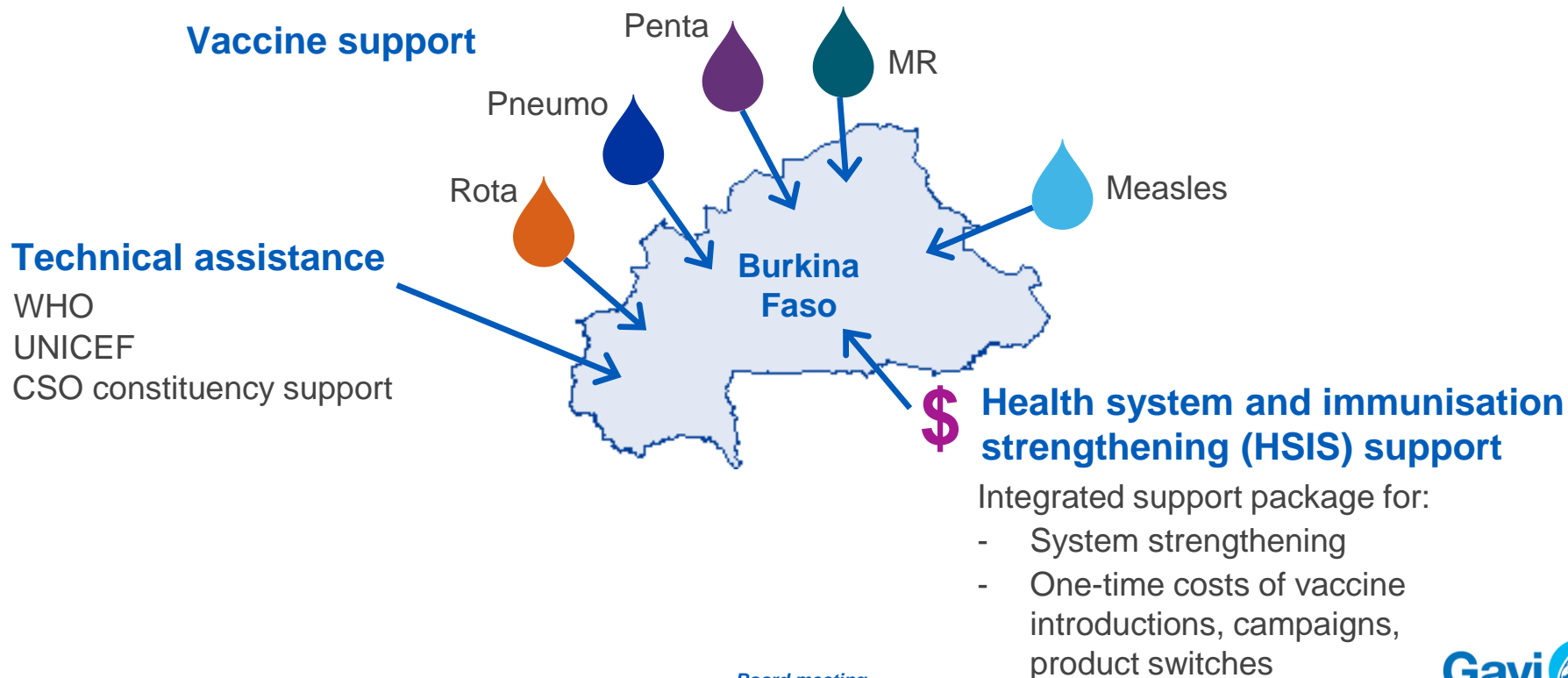


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## Integrated approach to health system and immunisation strengthening

Example: Alliance support to **Burkina Faso** in 2014 (illustrative to show recommended model)



# Cold Chain Equipment Optimisation Platform: early progress

## DEMAND

- Haiti recommended for approval
- 4 more countries applied, another 10-15 expected by year-end
- Tech guide helps countries choose the right equipment

Cold Chain Equipment  
Optimisation Platform



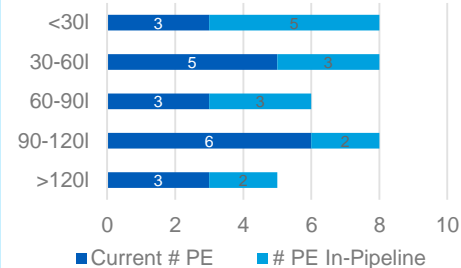
## SUPPLY

Innovative technology:

- **Arktek**: cooling technology for last-mile delivery
- Equipment designed to **stop vaccines freezing**: reduces wastage
- **Energy harvesting** on solar direct drives (SDDs) – to charge phones, communicate supply data

Full **installation & training** included, first 10-year **warranty** offered on SDDs

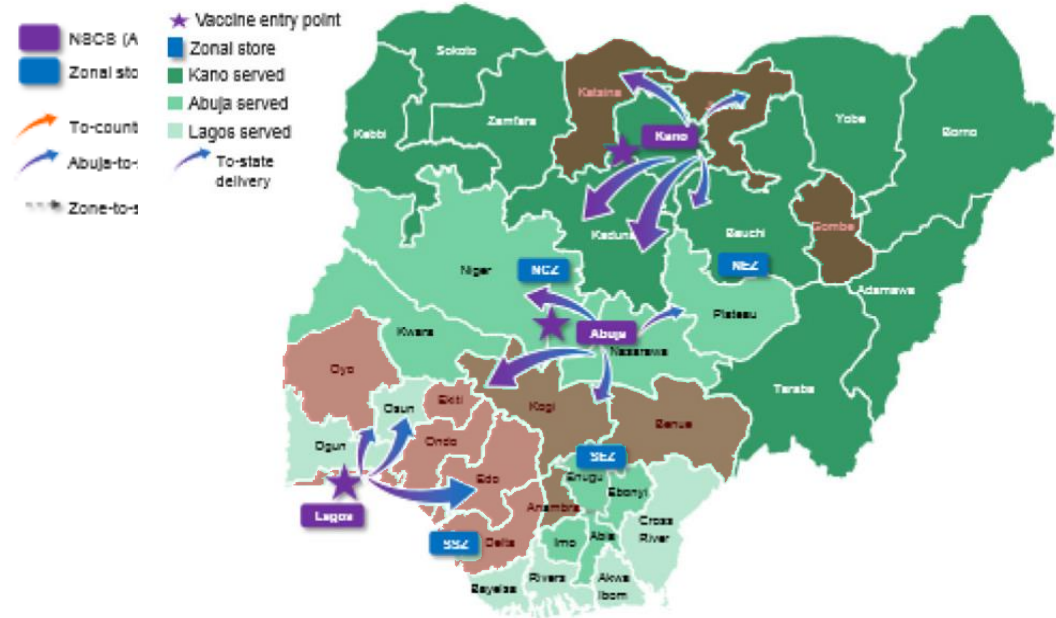
SDD: # of Platform Eligible Products



# Nigeria's vaccine supply chain system redesign

Now three-hub architecture involves direct transportation of vaccines from hubs to states

Gavi funds will be used to support 12 states across the country



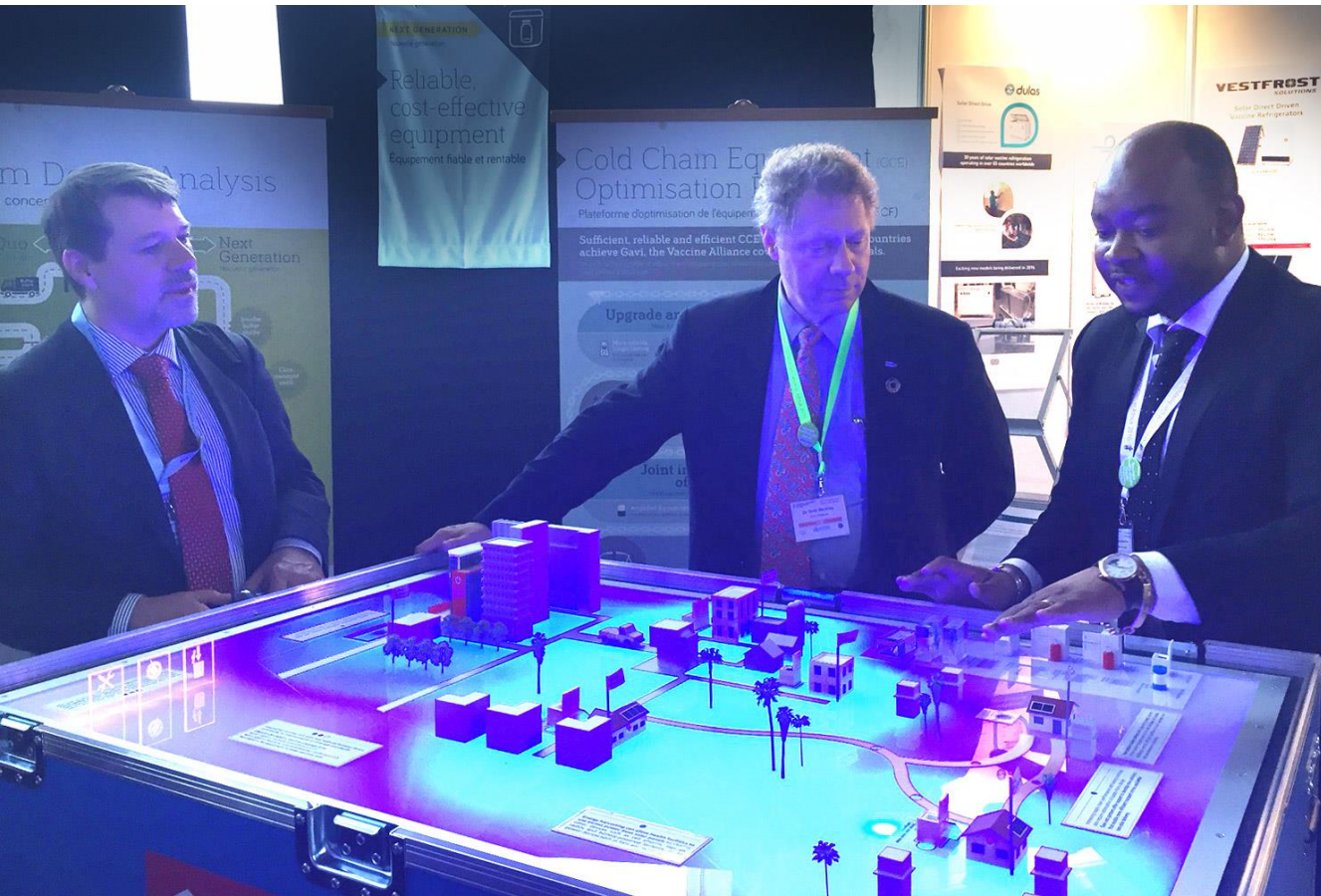


## STEP: supply chain leadership training, Rwanda

- Launched at new East African Community Centre of Excellence for Supply Chain
- UPS created curriculum & leads training
- IFPW provides scholarships & mentorship
- 60 students in 2016
- Innovative course design:
  - Distance learning
  - In-person training at EAC centre
  - Follow-up mentorship



# Supply chain model



## Innovation: using drones to access the hard-to-reach

- Gavi partnering with UPS and Zipline to explore using drones to deliver vaccines in Rwanda
- Funded by UPS
- Currently planned for blood supplies and rabies vaccine
- Can reach inaccessible areas



zipline





zipline



## New private sector initiative: INFUSE

- 60+ applied, 15 innovators selected for final round in July
- Aim: enable countries to access and scale most promising innovations
- Enhanced WEF partnership agreement signed
- 2016 focus: data improvements

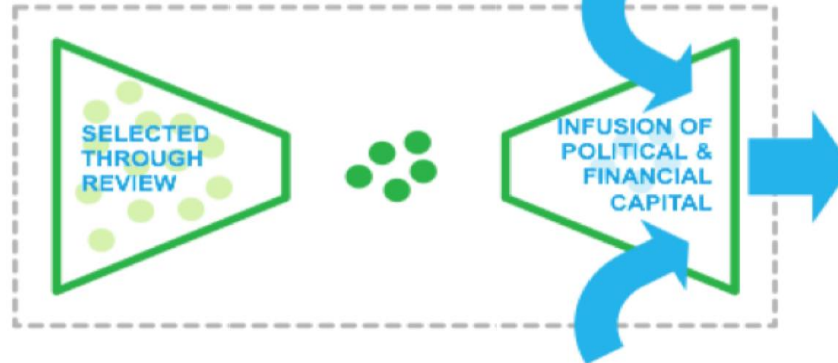
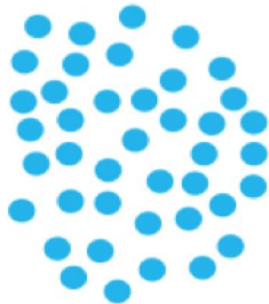
**Proven concepts**  
in health innovation  
apply to INFUSE

Identification of  
**most promising  
proven** concepts

Select  
**concepts**  
identified

Selected concepts  
matched with **political  
& financial capital**

Resulting  
partnerships **scaled  
for global impact**

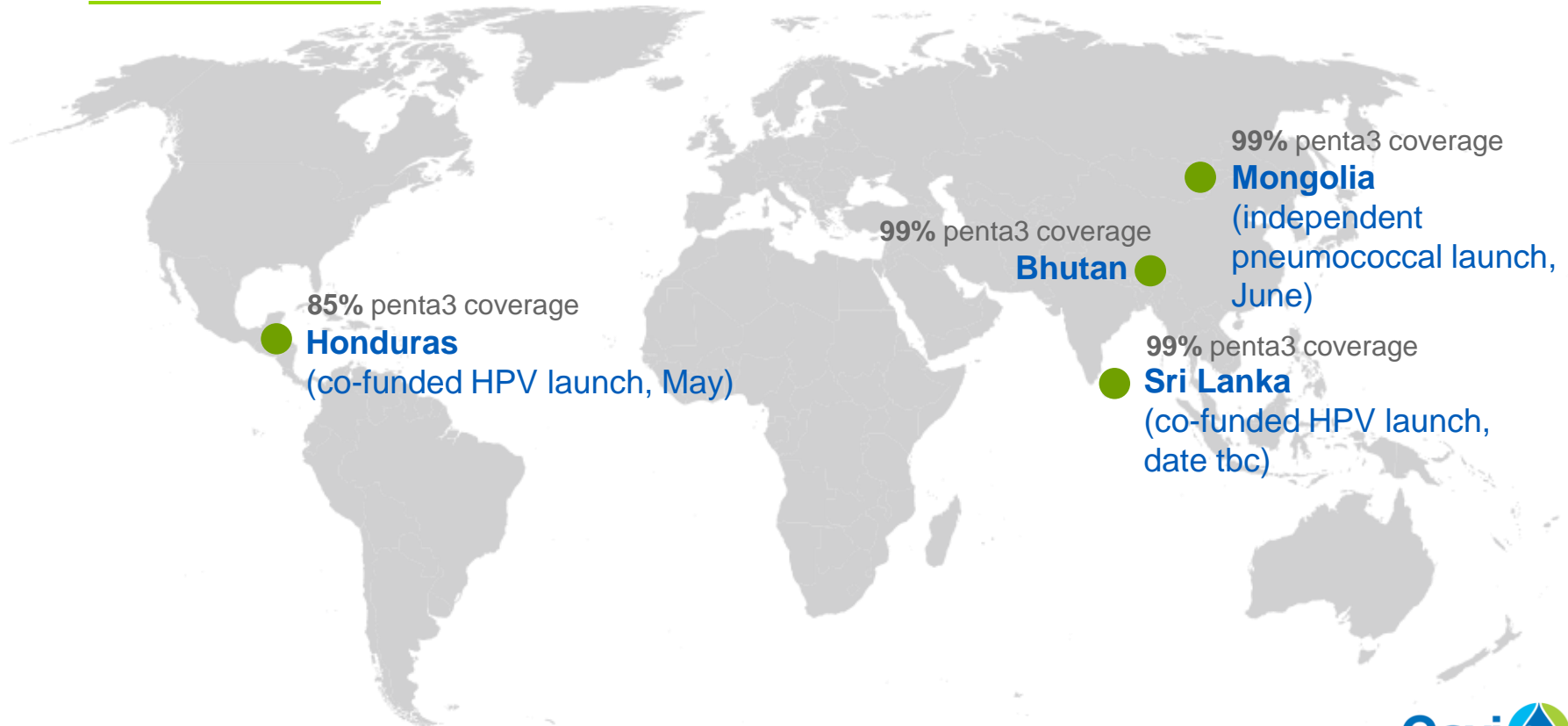


## Aspirational vision for transition

“Countries have **successfully expanded their national immunisation programmes** with vaccines of public health importance and sustained these vaccines post-transition with **high and equitable coverage** of target populations, while having **robust systems and decision-making** processes in place to support introduction of future vaccines.”



## Fully self-financing countries: independently launching new vaccines, high coverage



Note: all pentavalent coverage figures are for 2014. Source: WHO/UNICEF Estimates of National Immunisation Coverage, July 2015.

## Donor funding

- Close to 80% of grants signed, including Norway, UK
- Japan: new contribution brings total to ~ US\$ 100m for 2016-20 – first multi-year commitment



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# New supply and procurement strategy



## Three strategic priorities



### Healthy markets

Moving beyond singular objectives to deliver on healthy markets, balance trade-offs



### Long-term view

Taking a long-term view of markets



### Innovation

Driving innovation to better meet country needs

## Pneumococcal vaccine price reduction

GSK: record low price for pneumococcal vaccine, 10% reduction



“A fair shot”  
MSF campaign for lower prices



Photo © Edwin Torres

## Pentavalent tender shows further price decreases

- First stage of multi-phase tender for 2017–2019
- Innovative procurement method with multiple bidding opportunities
- Price transparency
- Second phase starting in June



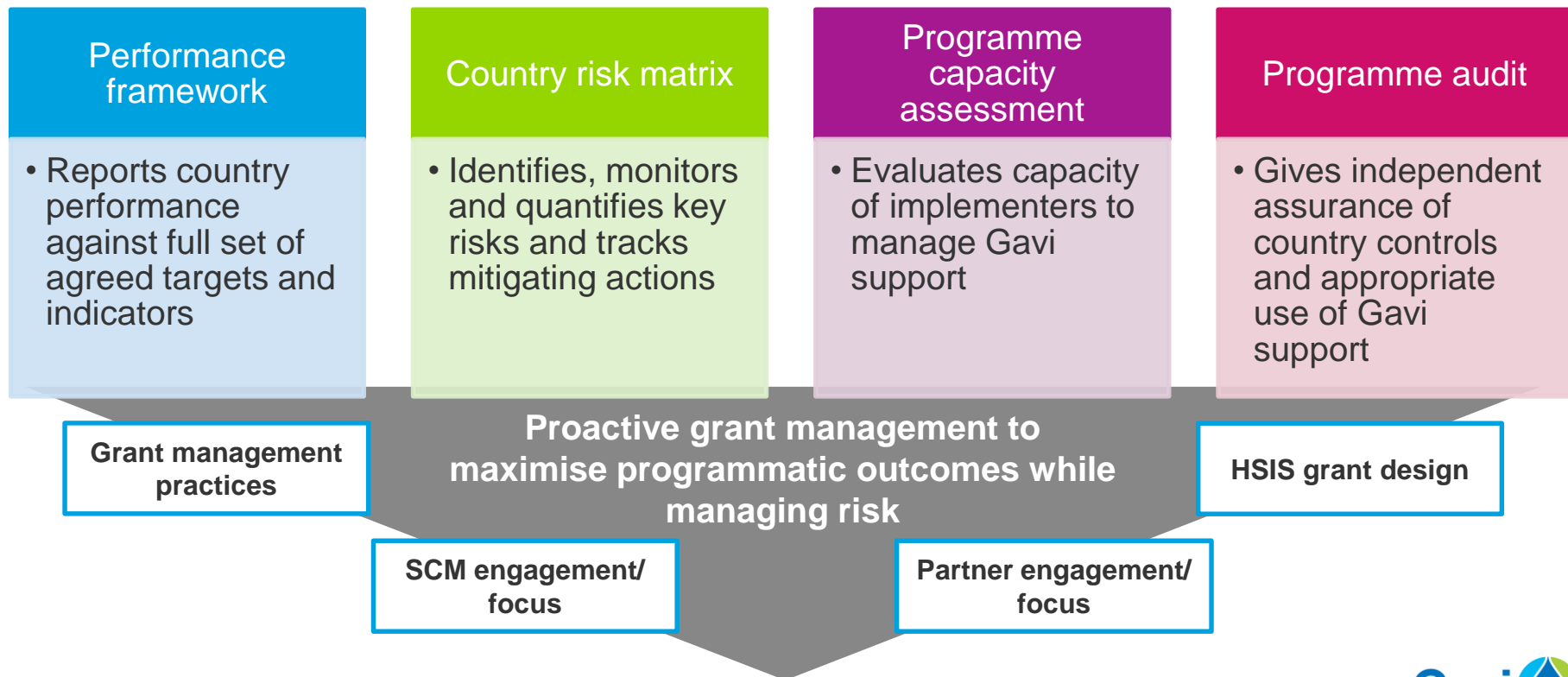


## New country portal – improving country interaction

- One platform for countries' interaction with Gavi
- Simplifies the application and reporting process
- 69/73 countries have submitted/started to submit applications
- Average of nearly 150 users logging in each week
- Partner portal launched on same platform



# Optimising programmatic outcomes with new risk-related tools



## Changes to Board process

- Streamlining Board information:

- **Board papers:**

- 680 pages in June 2015,  
520 pages in Dec 2015,  
160 pages + 215 pages 2<sup>nd</sup> pack  
for this Board meeting

- **Annexes**

- Additional **information and reference material**

- **myGavi**

- More items on consent agenda
- Closer coordination of committees, increased expertise
- More strategic Board agenda with stronger country focus, more time for in-depth discussion



June 2015



Dec 2015



Now

## Agenda for this meeting

- Gavi-Global Fund approach to collaboration
- Financial update
- Report from Audit and Investigations
- Malaria vaccine pilots
- Health system and immunisation strengthening support
- Partners' Engagement Framework & Alliance Accountability Framework
- Country Programmes: sustaining immunisation gains
- Supply and procurement strategy 2016-2020

**In 2001 Gavi  
immunised  
~1 million  
children**





By 2015 we are immunising  
>55 million children annually



But...

~1 in 5 children  
still miss out on  
basic vaccines;  
we must do  
better