

CONFIDENTIAL

Achieving our immunization goal



Supporting exhibits for final report

April 2003

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OBJECTIVE OF PROJECT

Project objective*

- Obtain broad commitments from partners to contribute to and support an overall effort to improve access to immunization services within the overall health sector

Key questions explored

- What is the current coverage level, and how is it likely to evolve?
- What are the drivers of the large differences in coverage between countries?
- What are the current strategies used to increase coverage and how effective are they?
- What different scenarios/options exist to increase coverage and reach the 80/80 goal and what are their costs, impact and trade-offs?
- How can stakeholders coordinate their efforts and how can GAVI integrate partners' contributions to increase coverage?
- What management structures need to be strengthened to support the scenarios?

PROJECT PROCESS



Timing

Nov 4-Dec 20

Jan 6-Feb 3-7

Feb 10-Mar 5

Key focus

- Current coverage situation in VF-eligible countries and development of coverage going forward
- Health system and immunization-specific barriers and opportunities to increase coverage
- Implications on design of scenarios/options for GAVI to increase coverage

- Scenarios/options to increase coverage
 - Level and type of GAVI involvement
 - Trade-offs in cost, time, integration and sustainability
- Draft of strategy and proof of concept for 3-4 countries

- Organizational implications of scenarios
- Management structures, accountability and reporting systems

Reference Group

- Anarfi Asamoah-Baah (WHO) – project manager
- Tore Godal (GAVI secretariat)
- Sigrun Mogedal (NORAD)
- Jean-Marie Okwo-Bele (UNICEF)
- Anne Peterson (USAID)

MORE THAN 90 INTERNATIONAL, REGIONAL AND NATIONAL EXPERTS AND STAKEHOLDERS HAVE BEEN CONSULTED

International experts and stakeholders

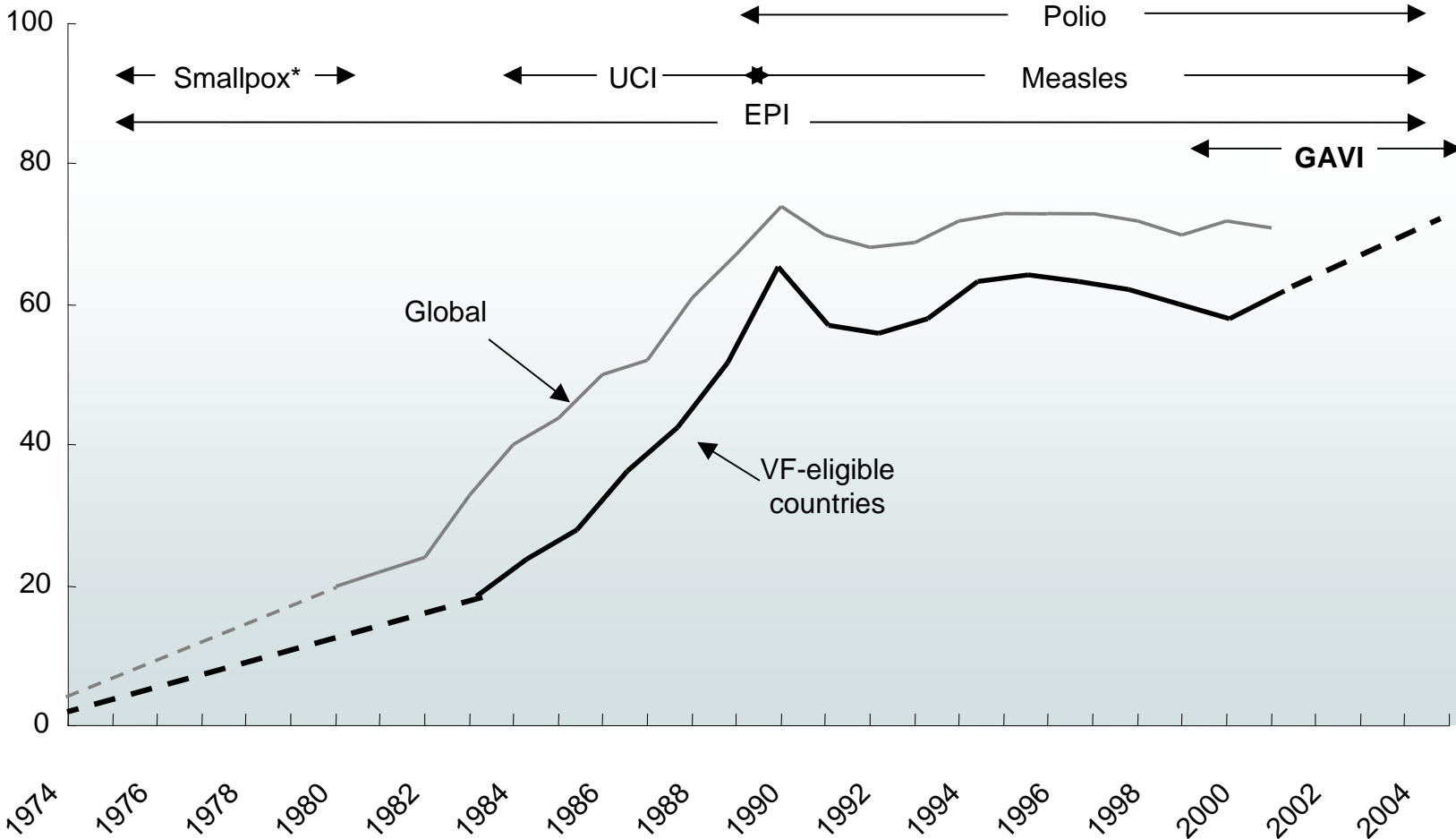
Orvill Adams	Steve Landry
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Robert Davies	Mark Miller
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Julia Fox-Rushby	Molly Mort
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Edward Hoekstra	Lomamy Shodu
Lisa Jacobs	Bo Stenson
Lidija Kamara	Daniel Tarantola
Mark Kane	Veronica Walford
Robert Keegan	Marijke Wijnroks
Richard Klausner	Lara Wolfson
Dan Kress	Michel Zaffran
Thierry Lambrechts	

Country/regional experts and stakeholders

Andy Agle	Basil Mramba
A. Awosika	Traore Fatoumata Nafo
Marzio Babilie	Benjamin Nkowane
Kaushik Banjeree	GV Ramana
Francois Biollet	Prasada Rao
Brent Burkholder	Sobhan Sarkar
Peter Carasco	Liz Taylor
Sann Chan Soeung	Agnes Taylor-Lewis
James Cheyne	Liane Thykeo
Brandao Co	Garba Tchang-Salomon
Martinho Dgedge	Nguyen Van Cuong
Nancy Dougherty	Mary Vandenbroucke
Rudi Eggers	Koen Vanoermelingen
Placid Gbedonou	Jay Wenger
Dale Gibb	
Henri Gott	
Abdoulie Jack	
Donald Kaberuka	
Kees Kostermans	
Rajeev Kumar	
Andrei Lobanov	
Osman Mansoor	
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EARLY SIGNS OF A POSITIVE COVERAGE TREND CAN BE SEEN IN VF-ELIGIBLE COUNTRIES

DTP3 coverage
Percent



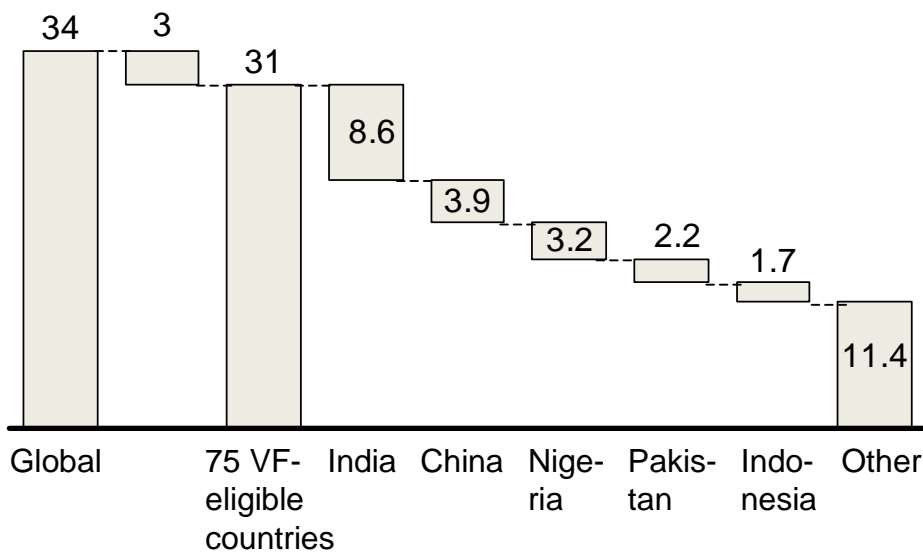
- Positive trend change in VF-eligible countries
- However, more accurate reporting has revealed that actual coverage is lower coverage than previously believed (65% instead of 76%)

* WHO smallpox eradication effort started 1967 and ended in 1979

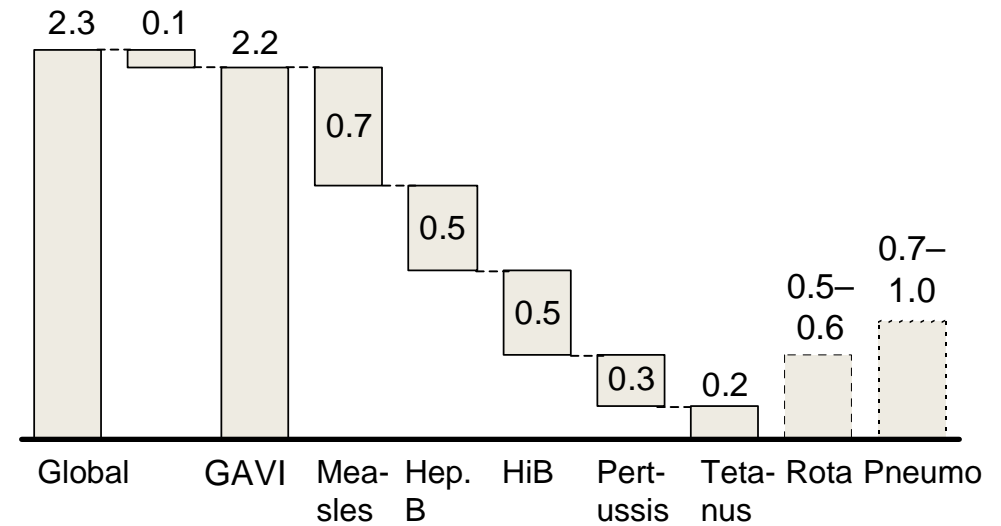
Source: China adjusted to 79% 1988-2001 (based on McKinsey estimate), all other countries based on WHO/UNICEF estimates

ABOUT 31 MILLION NEWBORNS EACH YEAR DO NOT RECEIVE IMMUNIZATION IN THE 75 VF-ELIGIBLE COUNTRIES

Unimmunized children, 2001
Millions



Vaccine preventable deaths, 2001
Millions

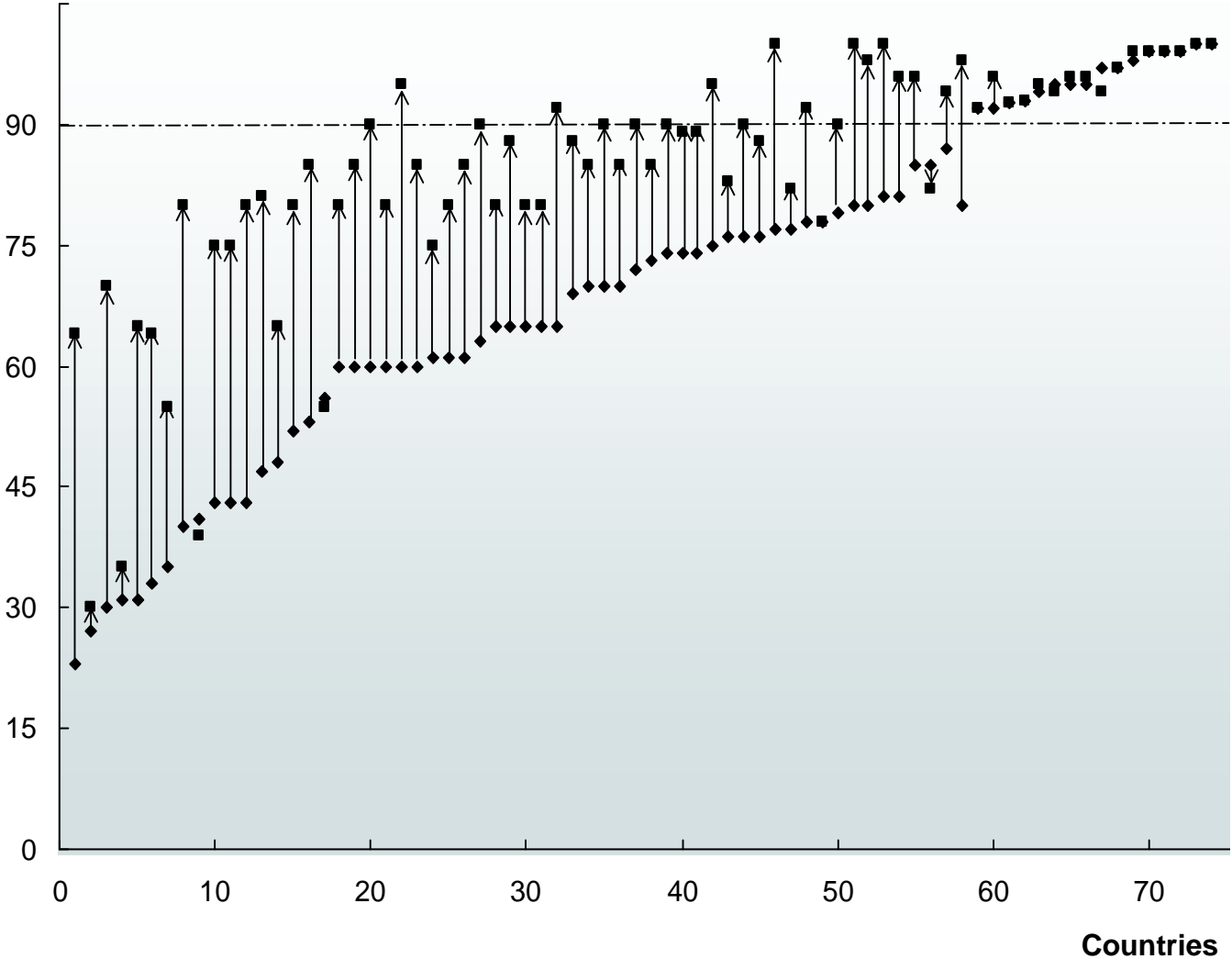


- About 91% of unimmunized children and about 95% of vaccine preventable deaths are found in the 75 VF-eligible countries
- Vaccine preventable deaths account for about 20% of global (11 million) deaths in children under 5 years of age, and about 35% if rota and pneumo are included

MOST VF-ELIGIBLE COUNTRIES HAVE SUBMITTED AMBITIOUS PLANS WITH CLEAR TARGETS AND BUDGETS FOR SCALING UP COVERAGE

VF-eligible countries current coverage and expected increases by 2005
Percent

- ◆ Current coverage
- Target coverage 2005 from country plan



- Most VF-eligible countries have applied for support
- Ambitious scale-up plans are established
- Immunization budgets are expected to increase

Source: Multi-year plans

A RANGE OF CURRENT GAVI MECHANISMS SUPPORT THE POSITIVE TREND IN COVERAGE

	<u>Impact on coverage*</u>	<u>Progress to date</u>
Introduction of new vaccines	<ul style="list-style-type: none"> • Increased attention to routine immunization at central political level 	<ul style="list-style-type: none"> • GAVI successfully introduced Hep B and HiB (e.g., 10.5 million children vaccinated against Hep B thanks to GAVI efforts)
ISS support	<ul style="list-style-type: none"> • Direct financial support and measurements of coverage achievements 	<ul style="list-style-type: none"> • 45 countries approved; about USD 300 million committed
FSP's	<ul style="list-style-type: none"> • Increased attention, financial planning at central political level 	<ul style="list-style-type: none"> • 12 FSPs reviewed
DQA review	<ul style="list-style-type: none"> • Reliable coverage data • Data check at sub-national level 	<ul style="list-style-type: none"> • Ongoing reviews
ICC's	<ul style="list-style-type: none"> • Coordination of resources at national and sub-national level 	<ul style="list-style-type: none"> • ICCs formed to function as national planning/implementation links to GAVI

* Based on interviews with country experts

Source: Interviews; McKinsey analysis

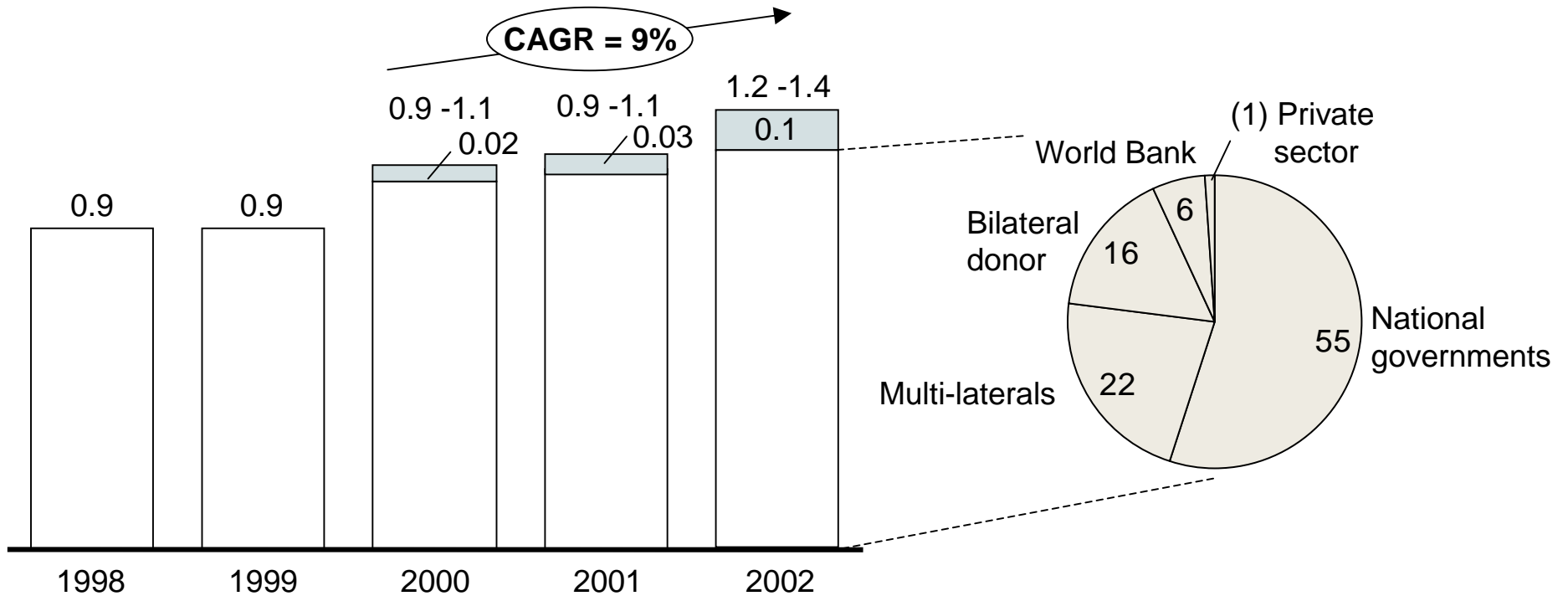
INCREASING FINANCIAL COMMITMENT TO IMMUNIZATION FROM NATIONAL GOVERNMENTS, DONORS, AND GAVI U

ROUGH ESTIMATE

Rough estimated spending on immunization in
VF-eligible countries
USD billions

Sources of funding
Percent

GAVI*

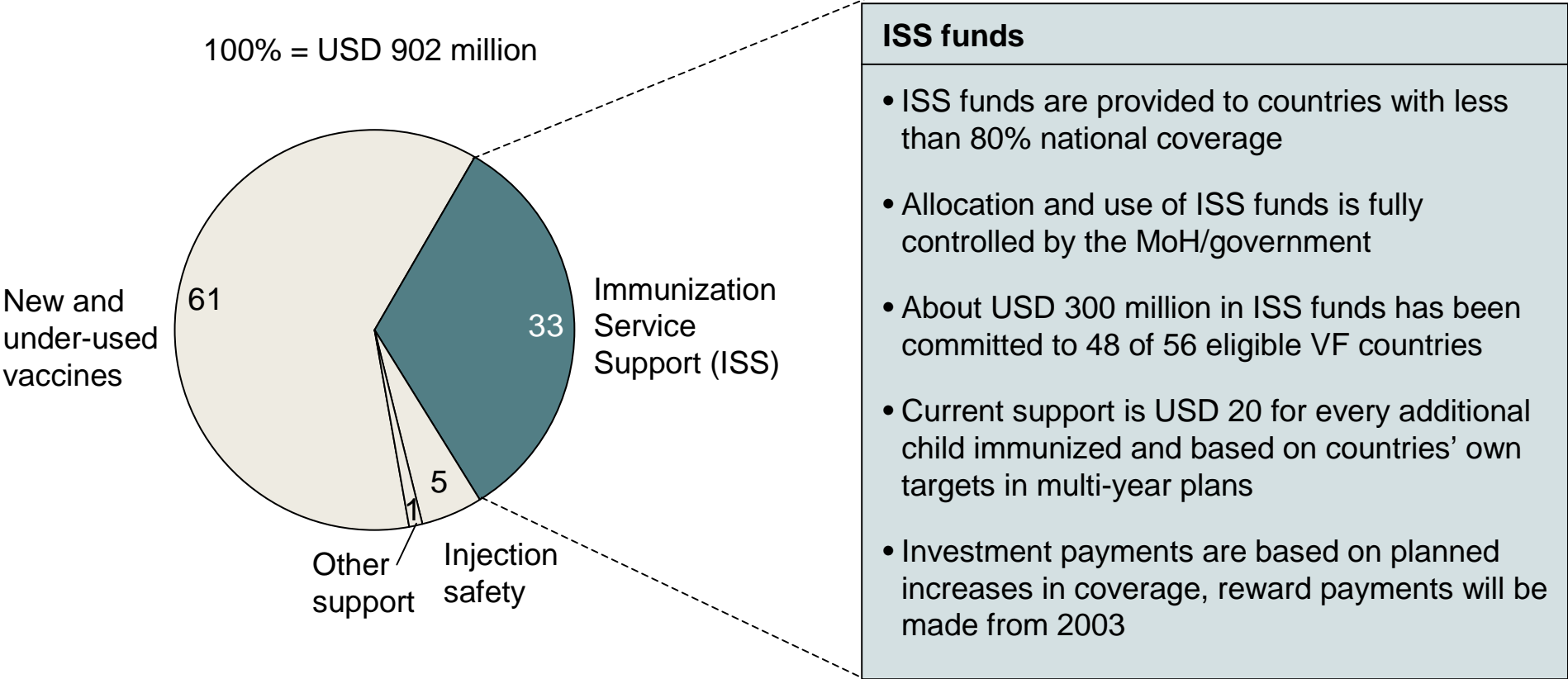


* Actual disbursements

Source: GAVI FTF; WHO; McKinsey analysis

IMMUNIZATION SERVICE SUPPORT IS SEEN AS AN IMPORTANT GAVI MECHANISM

Total vaccine fund commitments, 2000–2005*
Percent



* Currently USD 1.15 billion raised and USD 0.9 billion committed, do not include ADIPs
Source: Vaccine Fund; GAVI

ASSESSMENT OF COUNTRY PLANS

Most VF-eligible countries have applied for support:

- GAVI has committed support to 64 out of 75 VF-eligible countries
- ISS funds are committed to 48 countries; 8 ISS-eligible countries are currently not receiving support (one on re-submit status, three special cases receiving equivalent (India, China, Indonesia), four have not applied)

Country ambitions are high:

- Most countries have evaluated constraints to scaling up coverage and aim to pursue an integrated health system approach to immunization
- Countries' targets imply an overall coverage increase of about 15% up to 2005. Stretched targets can reach for more than a 50% coverage increase over 5 years

Immunization budgets are increasing:

- Countries forecast increasing expenditure on immunization, in some cases more than doubling the cost per Fully Immunized Child (FIC)
- Cost drivers vary by country, but immunization expenditure is often driven by introduction of new vaccines

MANY COUNTRIES STRONGLY FAVOR AN INTEGRATED APPROACH TO SCALING UP COVERAGE

Rationale for integrating

Beneficial long-term financials

- About 75% of immunization costs are applicable to other primary healthcare interventions (i.e. personnel, infrastructure) and are reduced significantly through integration

Community mobilization

- Community demand for immunization and other health services
- Broad intervention package, especially when curatives included reduces drop-out rates

Demand by Health Staff

- Immunization not seen as isolated task by community health workers – who deliver a broad range of services
- Integrated training demanded by health staff
- Staff satisfaction and retention linked to breadth of services offered

Quotes

“It doesn’t make economic sense to train a nurse or health worker at the community level just in immunization”
– *District Manager*

“Immunization and other health interventions leverage the same infrastructure – why would you duplicate?” – *MoH official*

“Bundling routine immunization with other services gives the mother an incentive to return and reduces the drop-out rate” – *EPI Manager*

“Immunization is just one of many services people want from me. You can’t think about immunization and other other health services separately”
– *Nurse at health post*

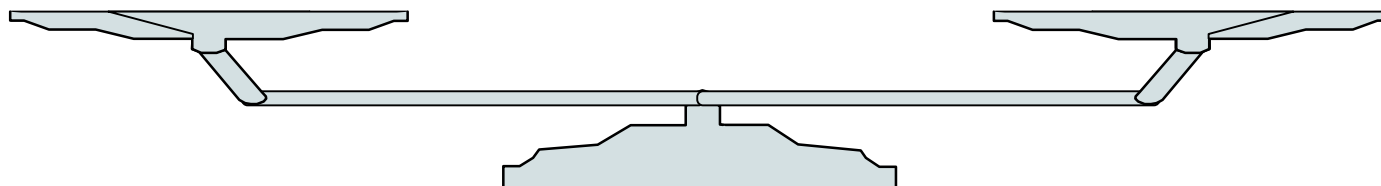
POSITIVE AND NEGATIVE MACRO TRENDS AFFECTING IMMUNIZATION

Positive macro-trends

- New vaccine introductions increase focus on and perceived value of immunization
- Increasing supply of combination vaccines has a positive impact both on immunization safety (fewer injections) and delivery
- Positive spill-over effect of polio eradication programs in the shape of the availability of human resources and infrastructure and the increased social awareness of immunization

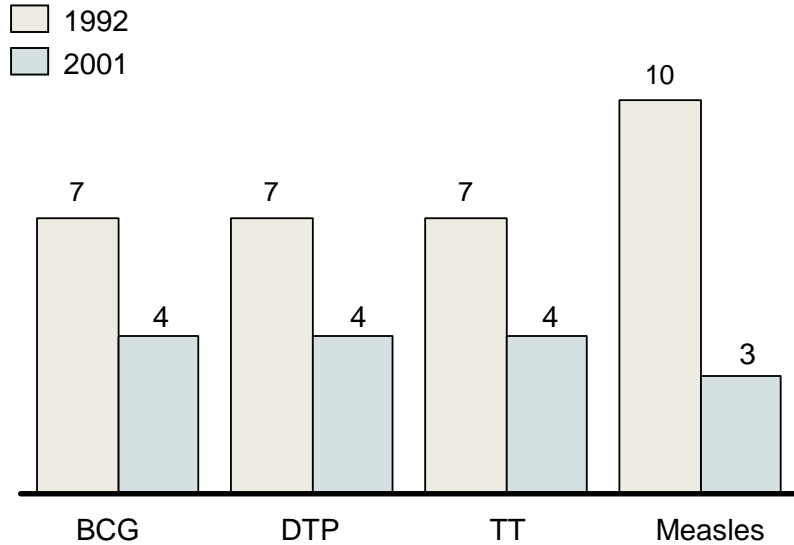
Negative macro-trends

- Increasing cost per immunized child will result in a widening funding gap going forward
- Shortage of combination vaccines has delayed new vaccine introductions and complicated delivery
- A longer than expected polio eradication effort has potential to sap resources from routine EPI
- Other competing health priorities such as HIV / AIDS and malaria can erode immunization focus

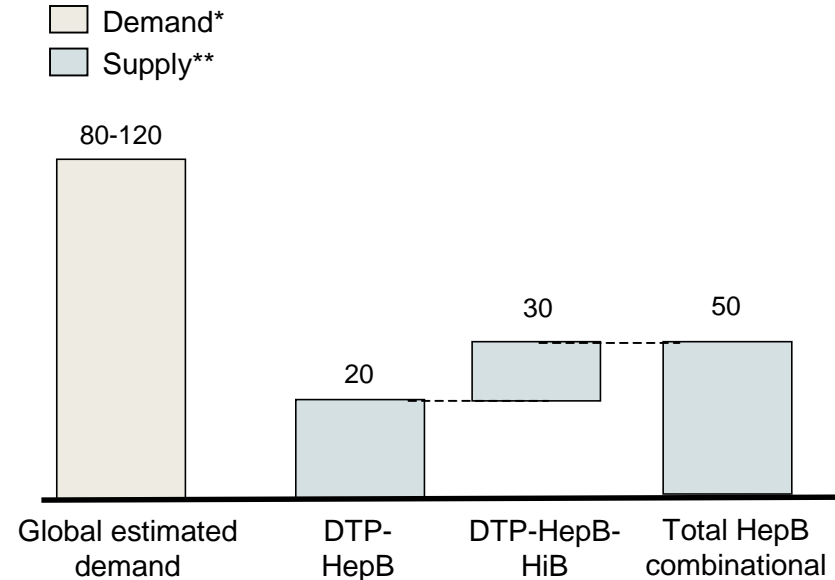


IMPACT OF VACCINE INDUSTRY DYNAMICS ON COVERAGE GOING FORWARD

Vaccine producers targeting developing countries
Number of companies



Global demand and supply of combo HepB vaccine, 2003
Million doses



- Decreasing number of companies manufacturing traditional EPI vaccines might create supply constraints in developing countries and force countries to purchase higher-cost alternatives
- Combination vaccines have advantages in terms of delivery and safety, but a potential supply shortage might have negative impact on coverage

* Estimated demand for both monovalent and combinational HepB vaccine

** Does not include basic monovalent Hep B vaccine

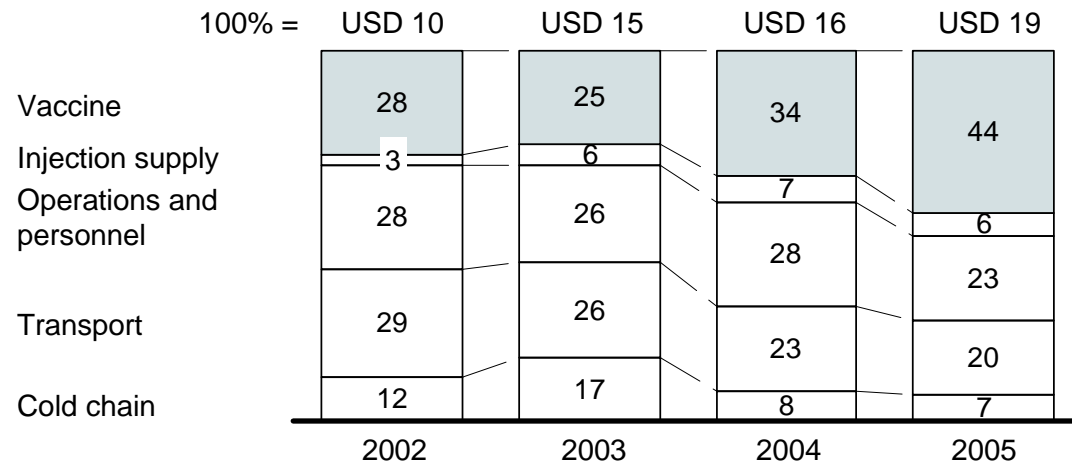
EXPANDING VACCINES IN ROUTINE IMMUNIZATION WILL RESULT IN SIGNIFICANT COST INCREASES – SINGLE COUNTRY EXAMPLE

CASE EXAMPLE

Country A

Breakdown of FIC* cost for DTP-Hep B introduction, 2002–05

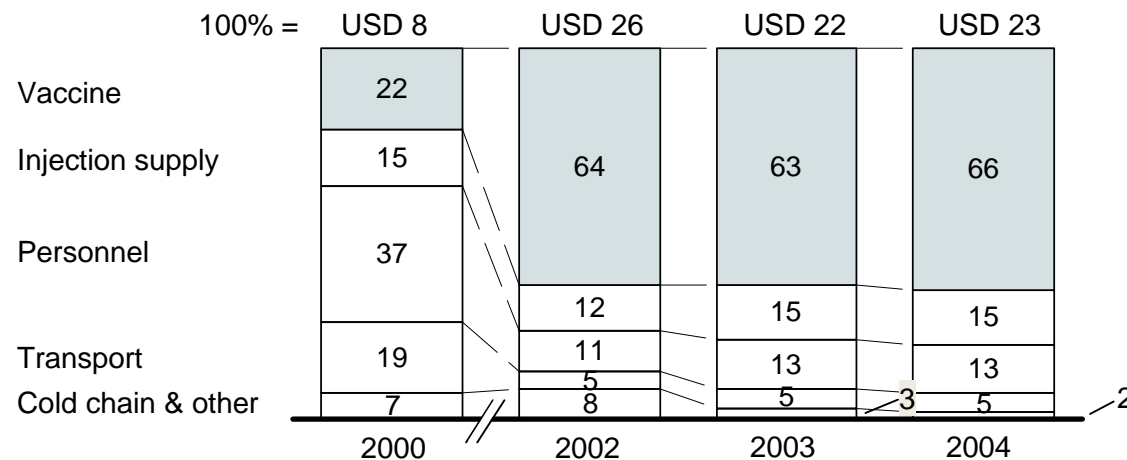
Percent



Country B

Breakdown of FIC* cost for DTP-Hep B-HiB introduction, 2000–04

Percent



- Immunization program costs may increase significantly in some countries going forward
- Cost of vaccines will increase the most rapidly and some countries expect vaccines to account for about 50% of the total program cost in 2005

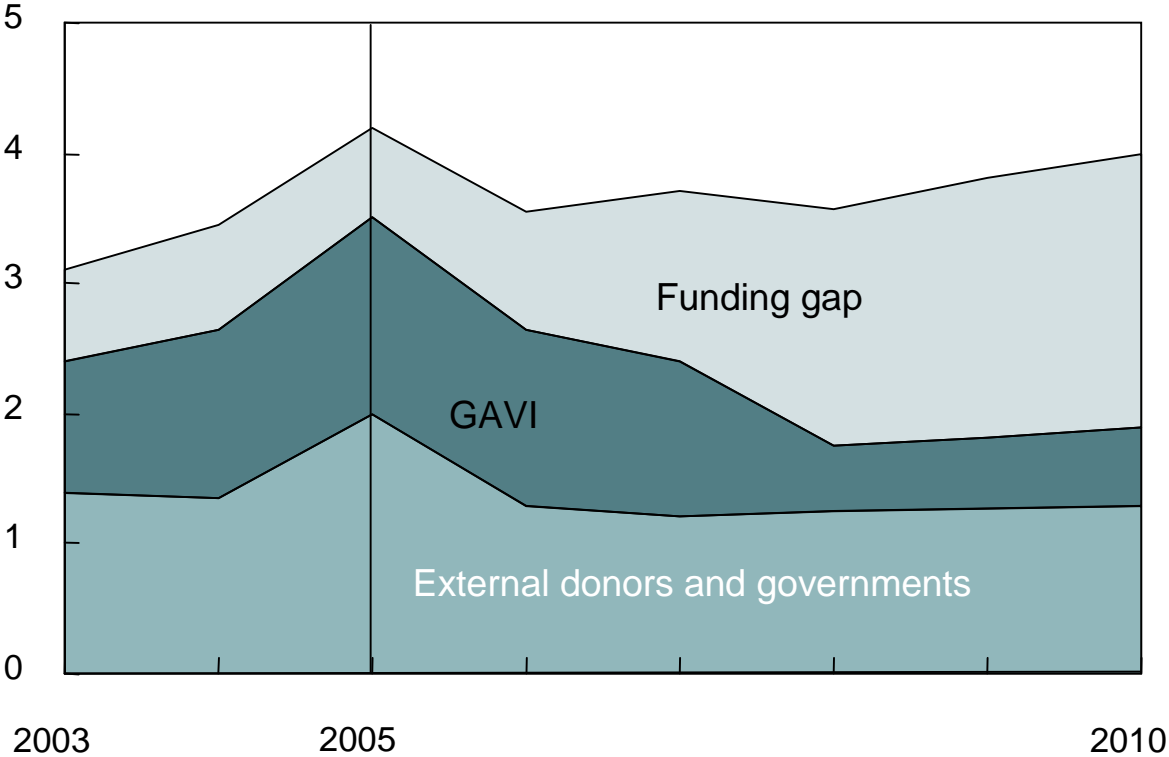
* FIC = Fully Immunized Child

Source: Country reports; McKinsey analysis; World Bank

MANY INDIVIDUAL COUNTRIES COULD FACE A FUNDING CHALLENGE POST-VF

CASE EXAMPLE

Country C immunization budget forecast
USD millions

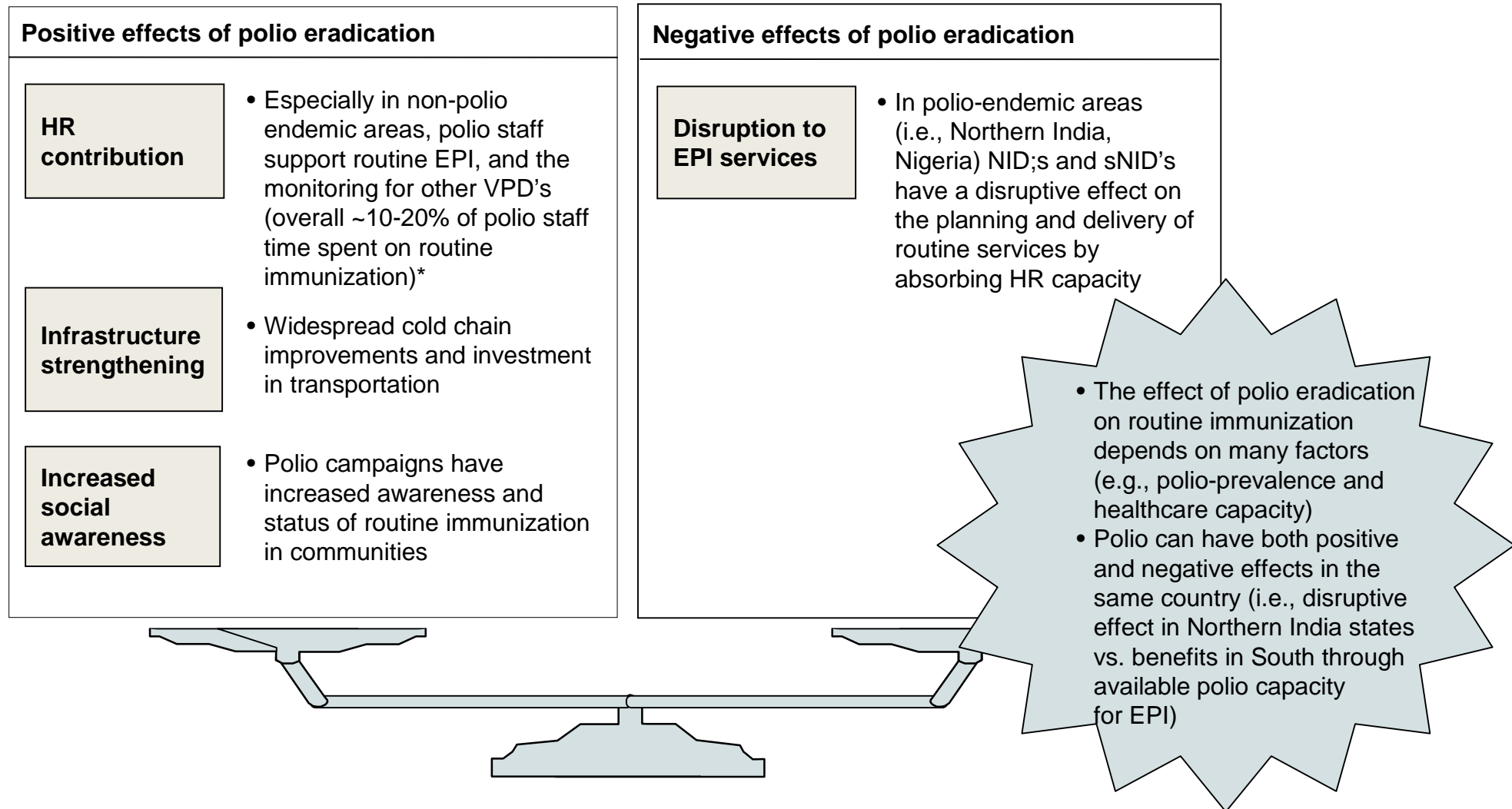


- Country C budget forecast shows a funding gap of between 30-60% post VF* as of 2005
- Major bilateral donors are reluctant to assume the funding burden of the new vaccine at current costs

* Country C Financial Sustainability Plan Forecast

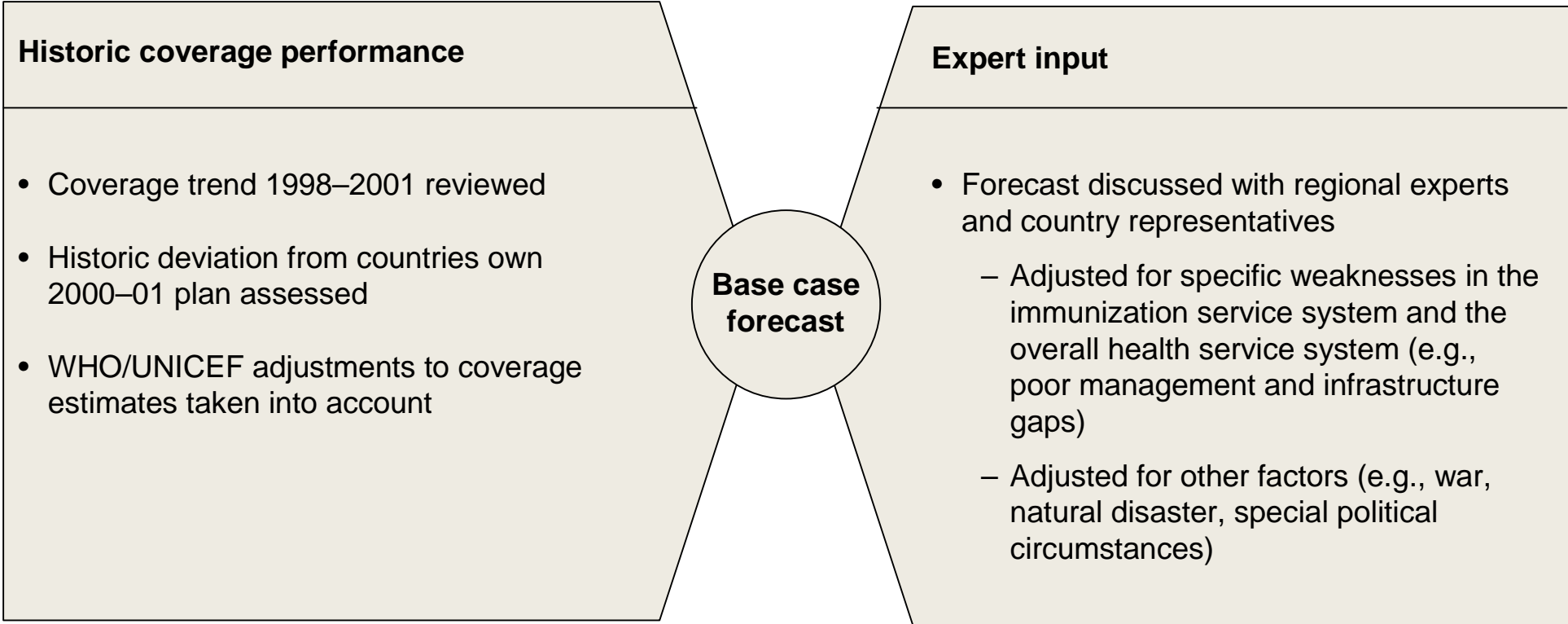
Source: Country C FSP; WHO/UNICEF; McKinsey team analysis

THERE ARE MIXED PERCEPTIONS ON THE EFFECT OF POLIO ERADICATION ON ROUTINE IMMUNIZATION



* Based on UNICEF/WHO National Immunization staff survey

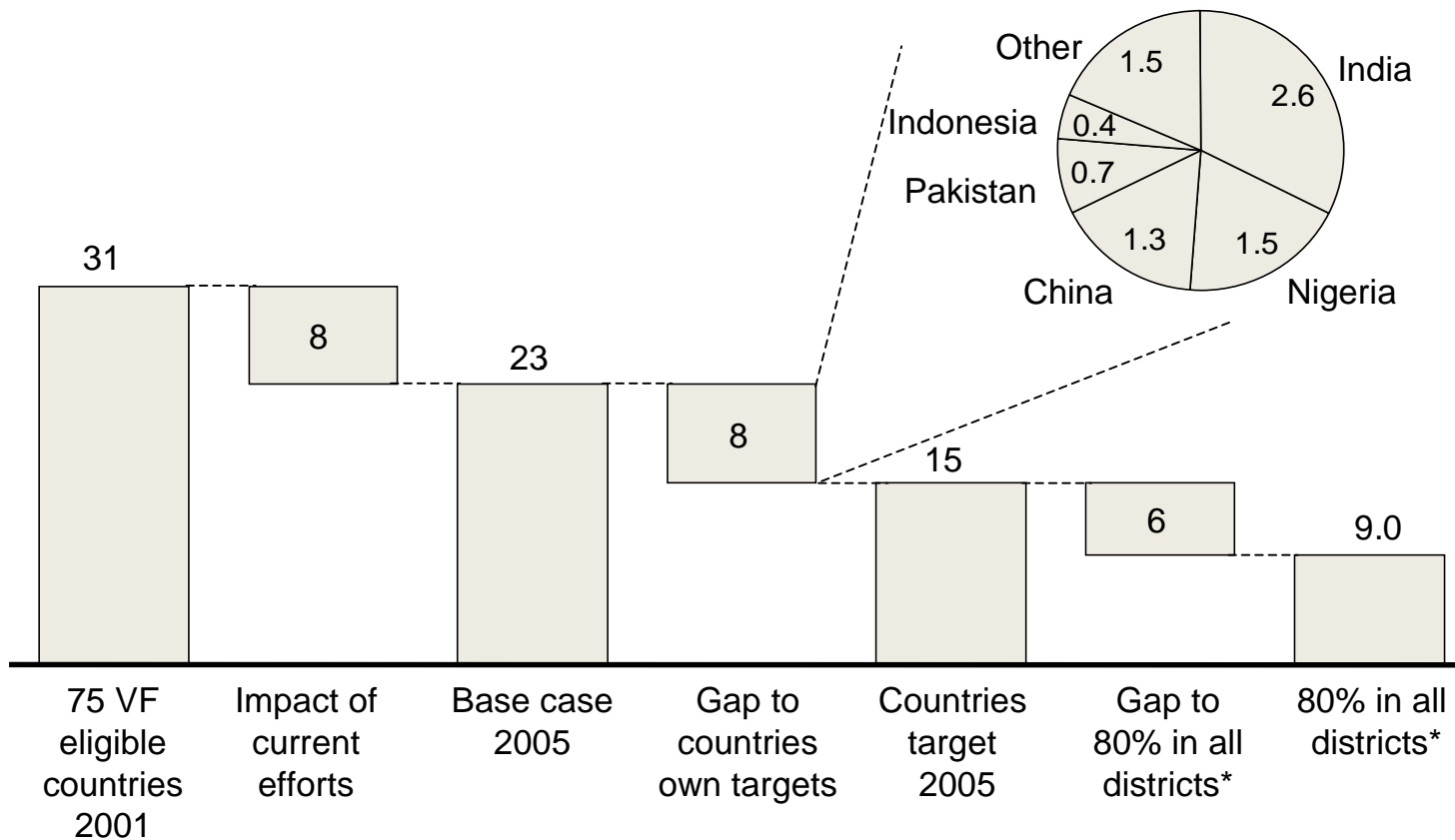
FORECASTING METHODOLOGY IS BASED ON BOTH HISTORIC COVERAGE PERFORMANCE AND EXPERT INPUT



VF-ELIGIBLE COUNTRIES ARE UNLIKELY TO REACH THE 80/80 TARGET IN 2005, DESPITE SUBSTANTIAL GAINS IN COVERAGE

Breakdown of unimmunized children
Millions

Gap per country
Millions

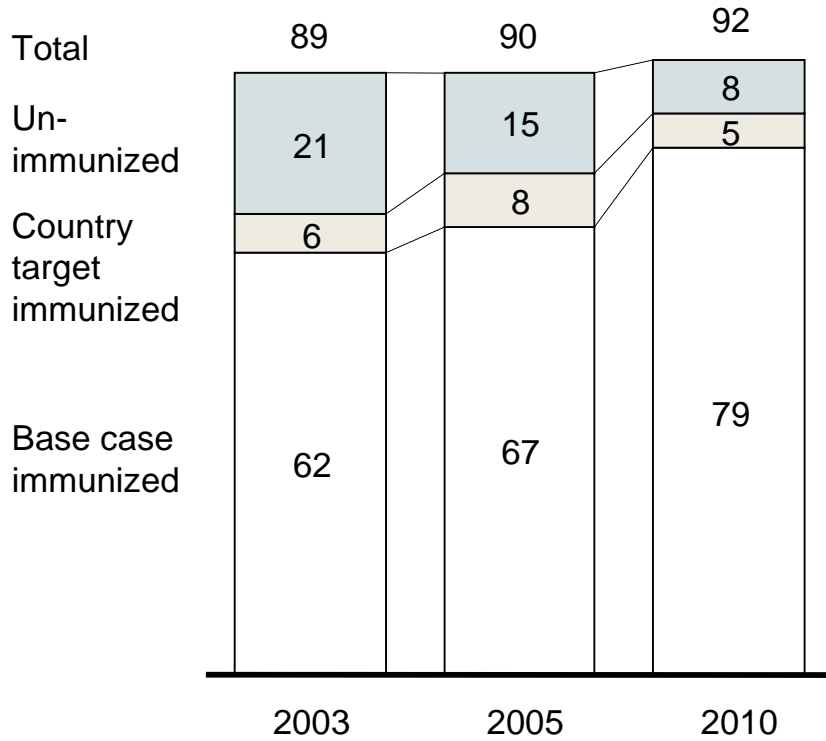


- Countries have ambitions to decrease the number of unimmunized children by 50% by 2005 (i.e., 16 million additional children immunized)
- Current efforts likely to result in a 25% decrease (or 7.9 million additional children immunized)
- A gap of 8 million children estimated to countries own targets

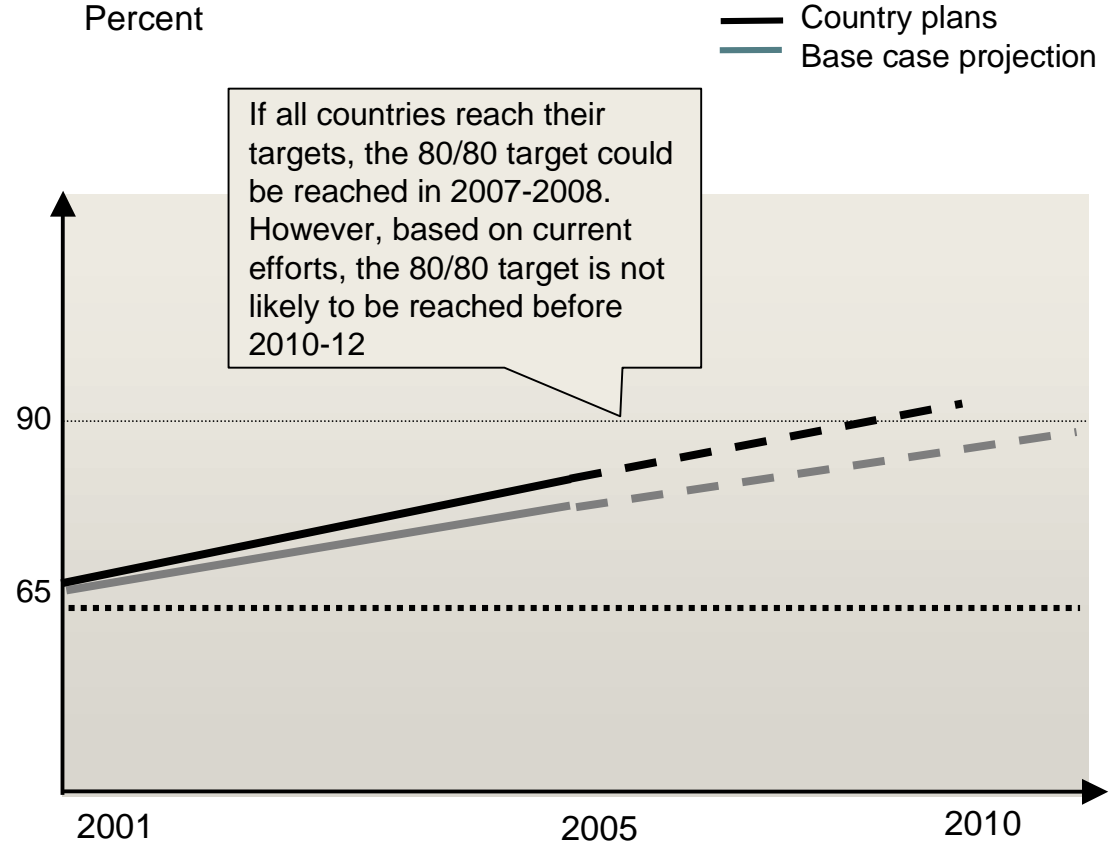
* 90% national coverage used as proxy for 80% district coverage

WITH THE CURRENT ACITIVTY LEVEL, THE 80/80 TARGET IS UNLIKELY TO BE REACHED UNTIL AFTER 2010

Number of children in VF-eligible countries
Millions

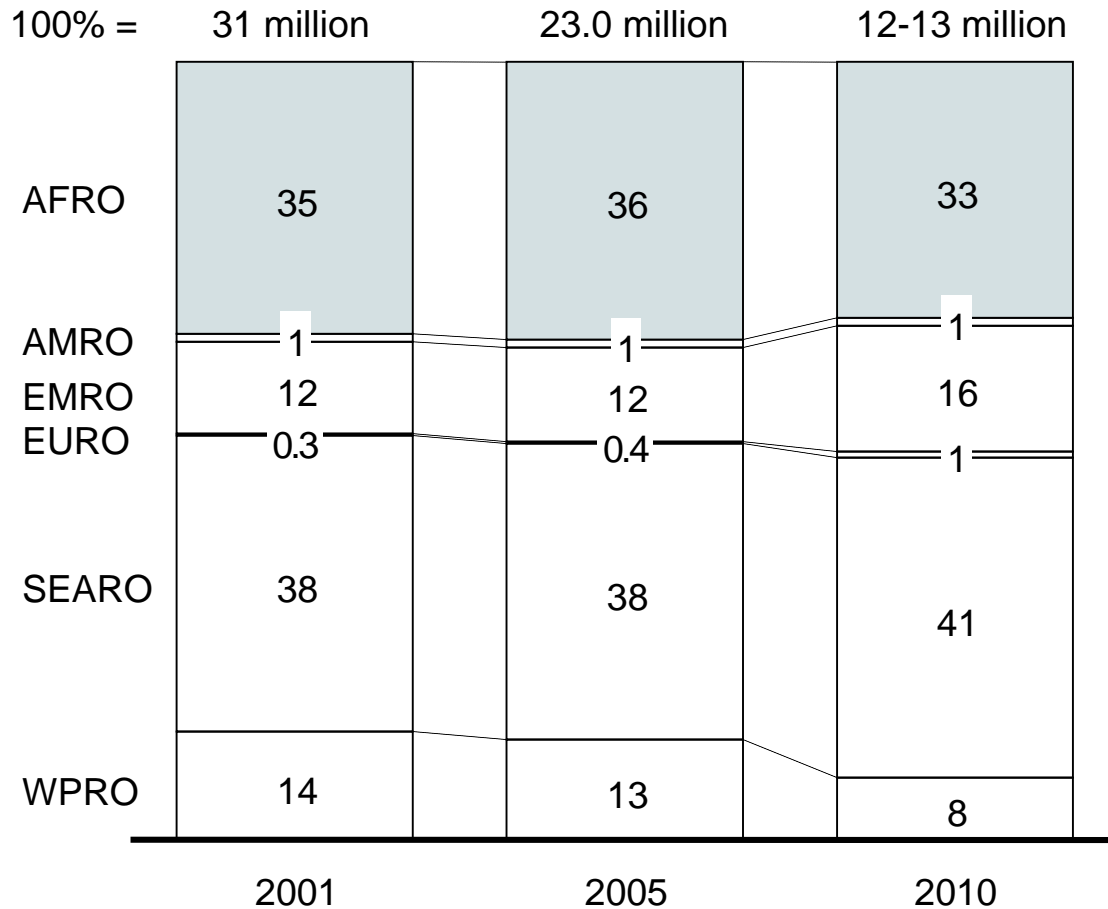


DTP3 coverage in VF-eligible countries
Percent



AFRO AND SEARO COUNTRIES DRIVE THE NEAR-TERM GAP IN UNIMUNIZED CHILDREN

Regional Breakdown of unimmunized children in VF-eligible countries*
Percent



- AFRO and SEARO countries account for the majority of the unimmunized children among VF-eligible countries
- AFRO and SEARO countries will drive the number of unimmunized children in the near term, while EMRO and SEARO countries will drive this gap through 2010

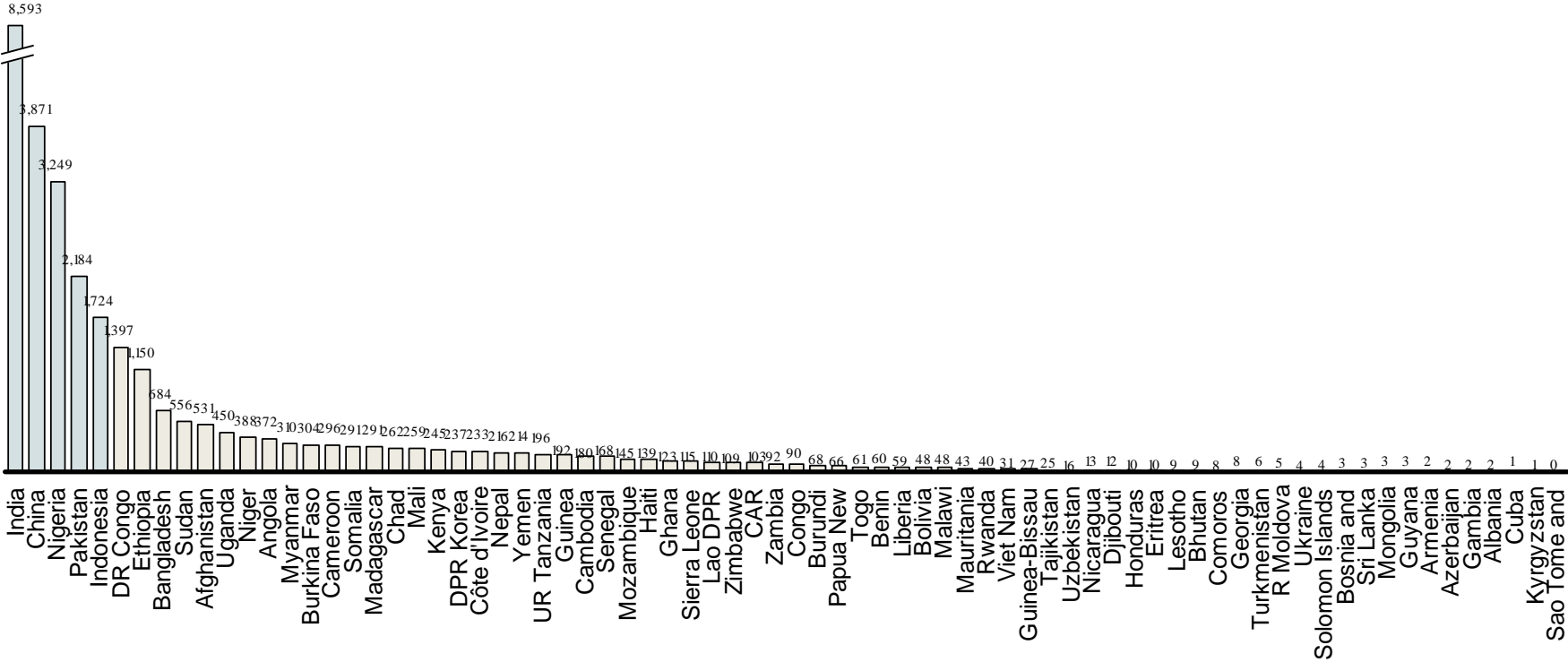
* Base case forecast

Source: Multi-year plans; McKinsey team analysis

UNIMMUNIZED CHILDREN IN VF-ELIGIBLE COUNTRIES 2001 (GAP TO 100%)

Number of unimmunized children per country – WHO/UNICEF Best Estimate 2001*
Thousand

Big 5 countries



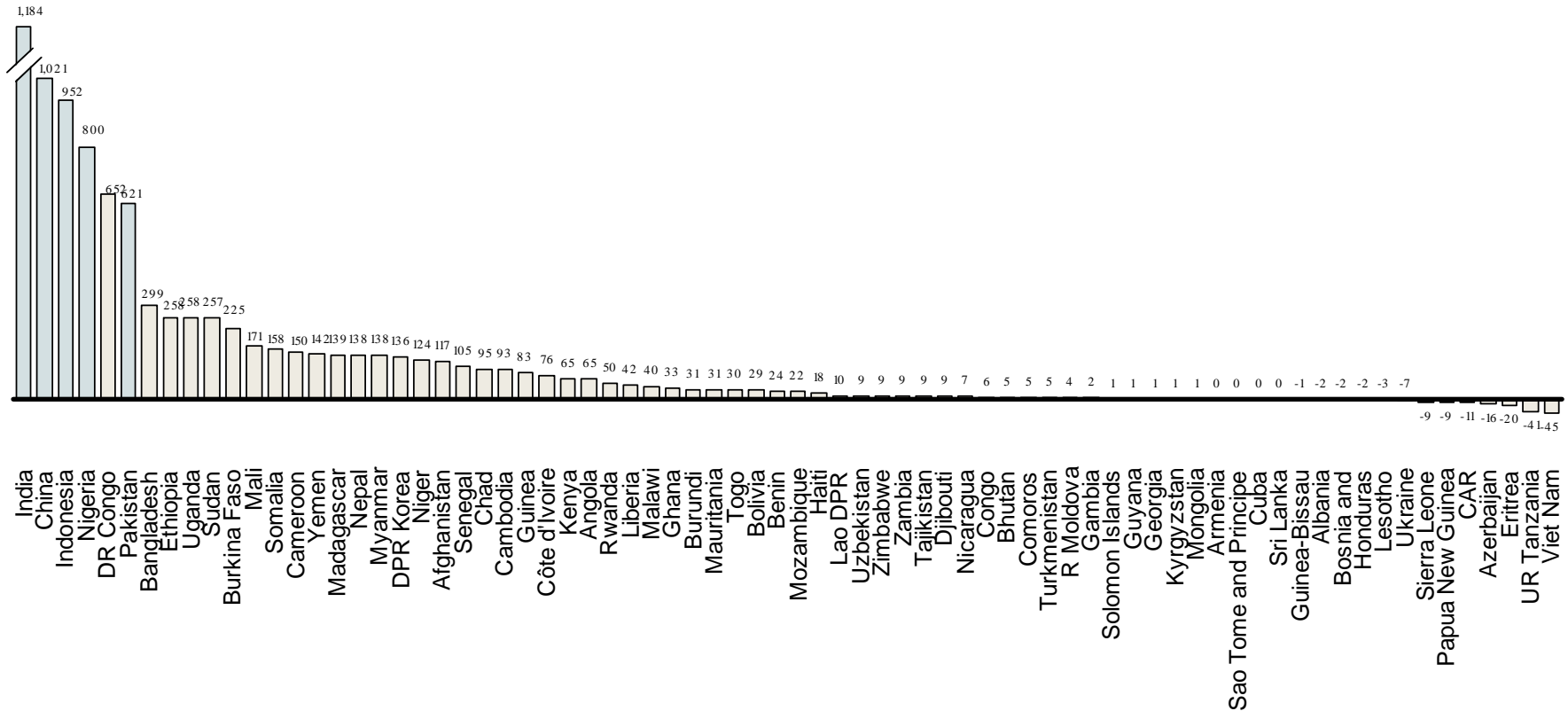
* (100%-(WHO/UNICEF Best Estimate DTP3 coverage 2001)) * (Surviving Infants 2001)

Source: WHO Vaccines and Biologicals Global Summary 2002

BASE CASE PROJECTED INCREASE IN DTP3 COVERAGE 2005 – EXPRESSED IN NUMBER OF ADDITIONALLY IMMUNIZED CHILDREN

■ Big 5 countries

Number of additionally immunized children in base case 2005*
Thousand



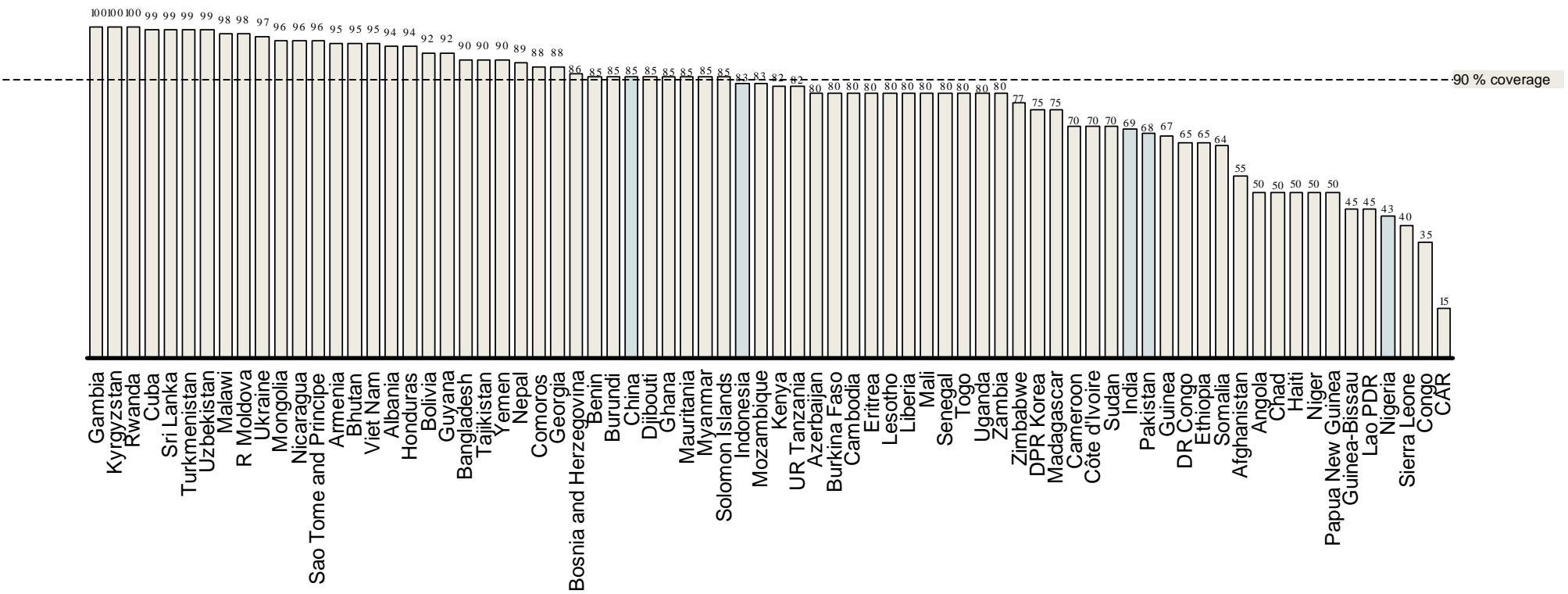
* (Base case projection DTP3 coverage in 2005) – (Coverage 2001 WHO/UNICEF best estimate) x (Expected surviving infants, 2005)

Note: Discrepancy in coverage according to best estimate 2001 and country's reported coverage in application distorts graph for a subset of countries. For example, Azerbaijan reports an ambition to increase coverage from 74% to 80%, but is estimated to have a coverage of 98% in 2001 according to WHO/UNICEF best estimate data

BASE CASE PROJECTION, 2005

Big 5 countries

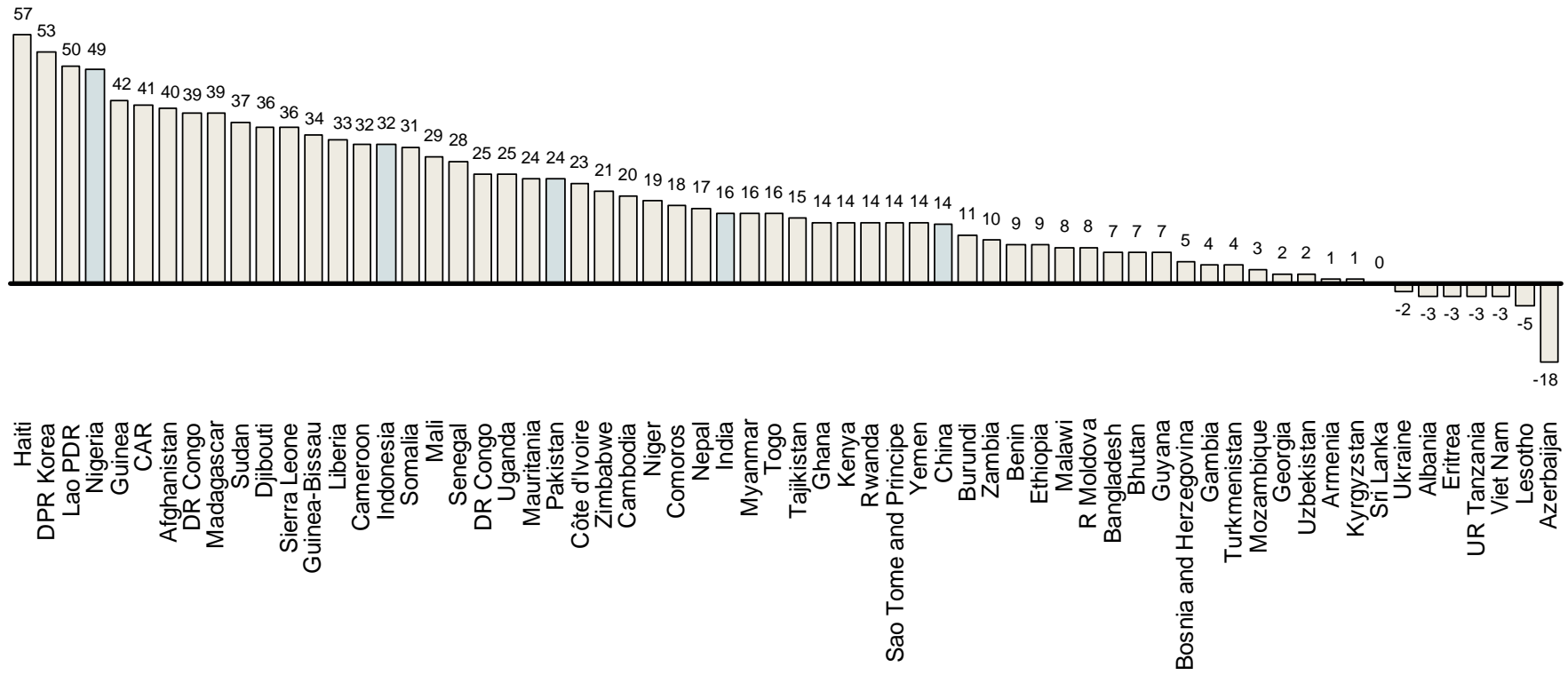
DTP3 coverage 2005 in base case projection
Percent



COUNTRIES' OWN TARGETED INCREASE IN DTP3 COVERAGE – EXPRESSED IN PERCENT POINTS

Big 5 countries

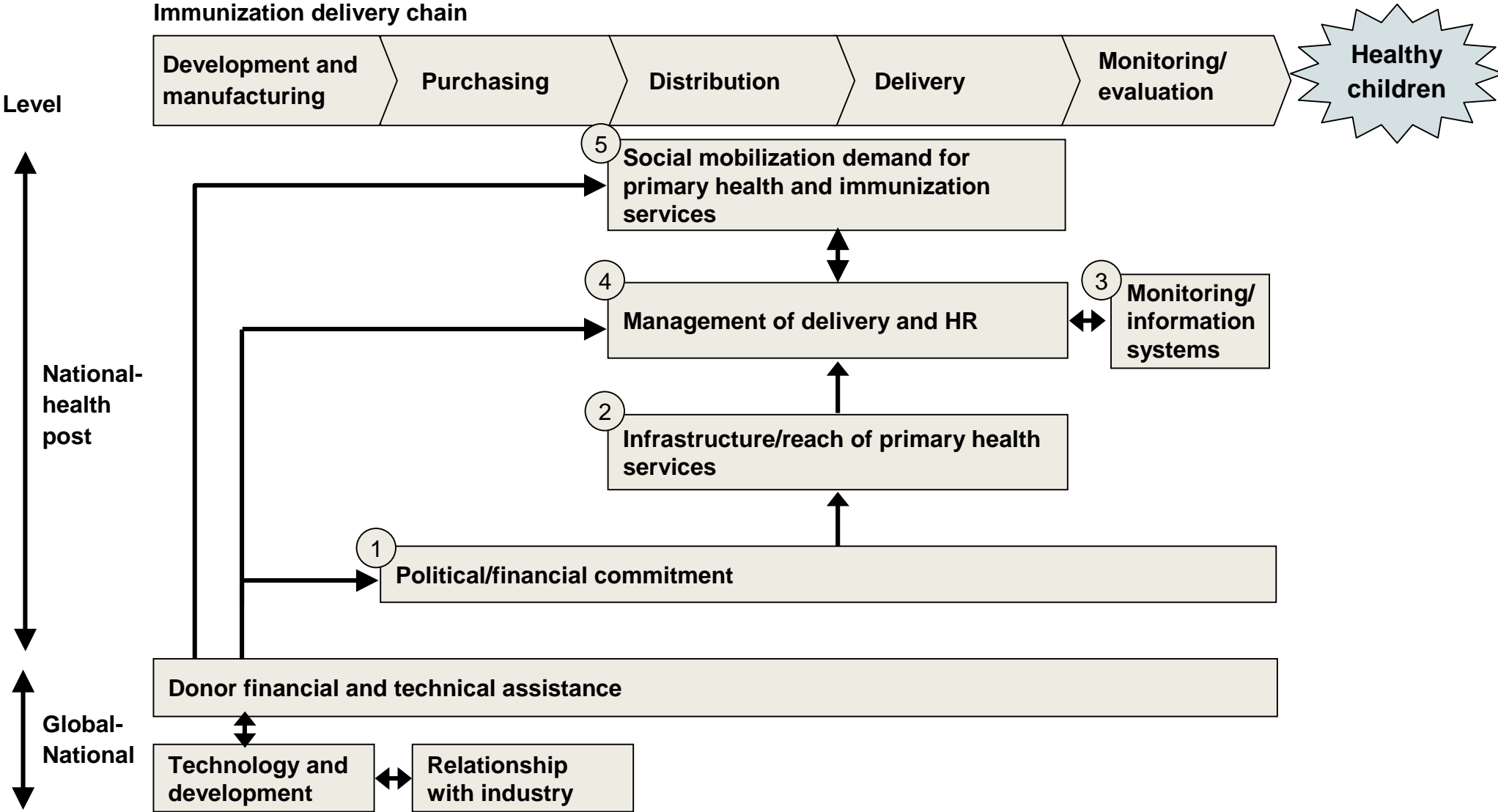
Countries' targeted coverage increase 2001 to 2005*
Percent points



* (Target DTP3 coverage in 2005) – (Coverage 2001 WHO/UNICEF best estimate). 11 VF-eligible countries where no target is available are omitted from the graph

Note: Discrepancy in coverage according to best estimate 2001 and country's reported coverage in application distorts graph for a subset of countries. For example, Azerbaijan reports an ambition to increase coverage from 74% to 80%, but is estimated to have a coverage of 98% in 2001 according to WHO/UNICEF best estimate data

FIVE PERFORMANCE DRIVERS ACROSS THE PRIMARY HEALTH SERVICE DELIVERY SYSTEM HAVE BEEN IDENTIFIED



Source: Anne La Fond, "Sustainability and Health Sector Development", Save the Children fund, 1994; UCI evaluation report; Interviews

A NUMBER OF CRITICAL PERFORMANCE DRIVERS SHAPE A COUNTRY'S ABILITY TO SCALE UP COVERAGE

Key Components

**Political/
financial
commitment**

- Political/ financial prioritization
- Financial self-sufficiency and reliability
- Timely distribution of money

**Physical
infrastructure and
equipment**

- Sufficient fixed or mobile infrastructure to provide basic health services to population
- Functioning medical equipment/supplies (i.e., cold chain)

**Monitoring/
Information
systems**

- Effective systems for disease surveillance, performance monitoring, and planning

**Management
of delivery/Human
Resources**

- Rigorous regional/district supervision
- Logistics planning and delivery
- Adequate number of trained health staff at community level

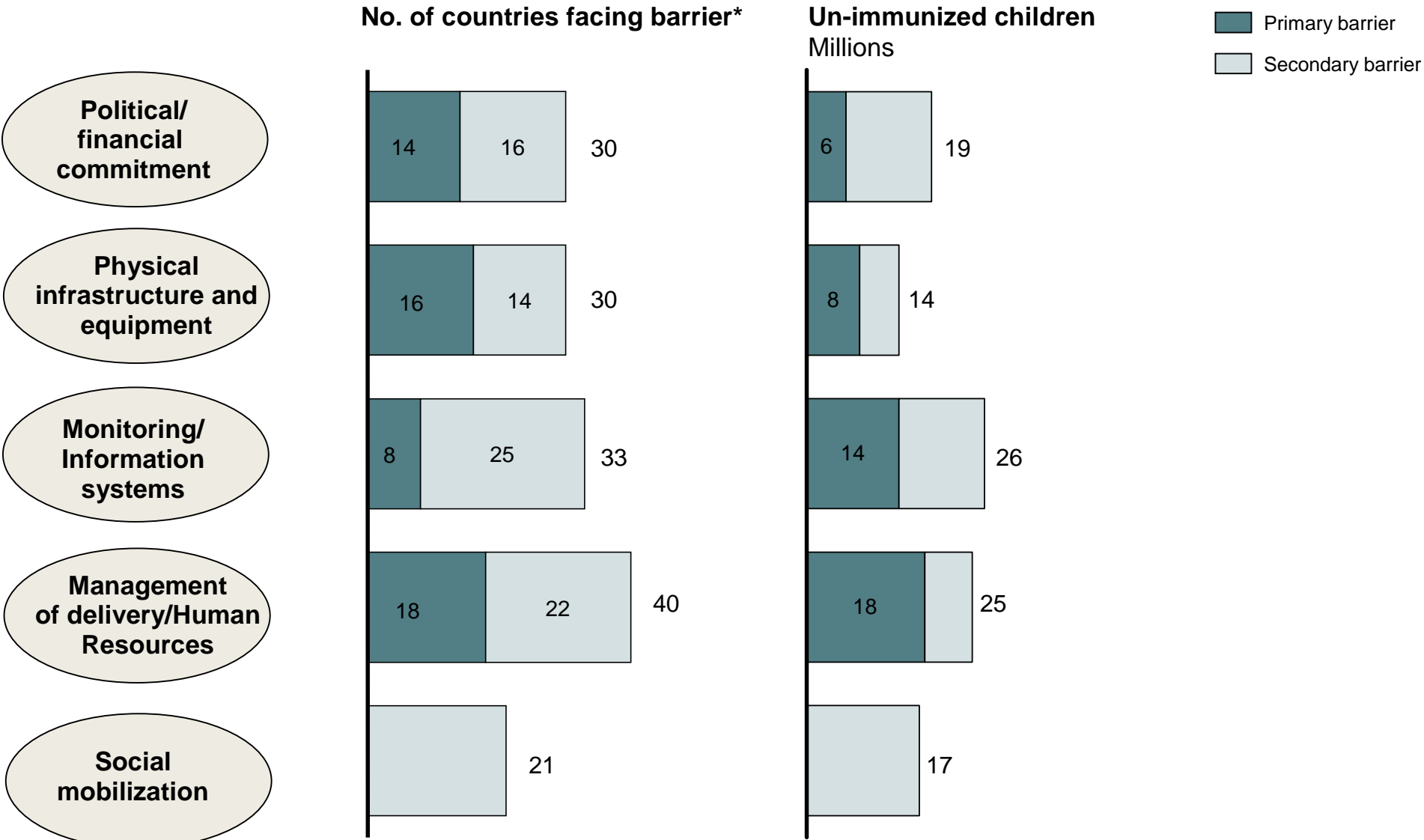
**Social
mobilization**

- Awareness levels
- Acceptance and utilization
- Community participation in service delivery

BARRIERS WERE EVALUATED AGAINST A COMBINATION OF QUALITATIVE AND QUANTITATIVE INDICATORS

Performance driver	High ability	Medium ability	Low ability	Sample metrics
<p>1</p> <p>Political/financial commitment</p>	<ul style="list-style-type: none"> • Immunization as a formal and informal national priority • Well-governed program with strong, top-level political support • Significant steps towards vaccine self-sufficiency and decreasing donor dependence 	<ul style="list-style-type: none"> • Identifiable program on immunization as outlined in MYP • EPI accountability at central level • Variable/changeable political commitment with medium level of donor dependency 	<ul style="list-style-type: none"> • No clear immunization program/inactive program, without top-level political support • Poor/no MYP submitted • Under-funded primary healthcare system and high donor dependency 	<ul style="list-style-type: none"> • Percent of GDP on primary healthcare and immunization • Percent of total EPI budget externally financed
<p>2</p> <p>Infrastructure/Reach of primary health services</p>				

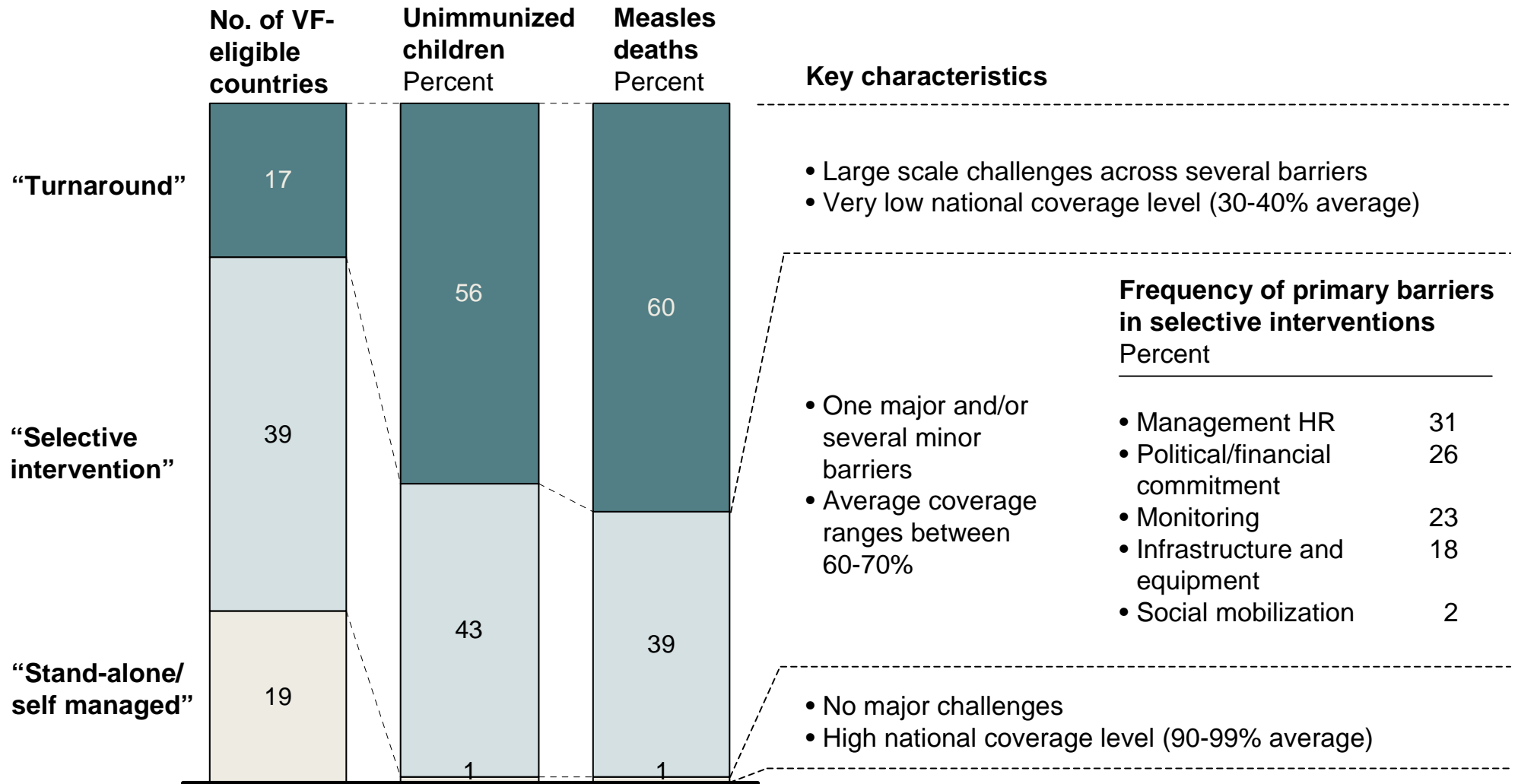
COUNTRIES FACE BARRIERS ACROSS SEVERAL PERFORMANCE DRIVERS






* Countries can face multiple barriers

Source: Interviews with country experts; country plans; McKinsey team analysis

COUNTRIES CAN BE GROUPED BASED ON THE TYPE AND LEVEL OF THE BARRIERS THEY FACE



COUNTRY BARRIER ANALYSIS AND FORECAST – AFRO (1/2)




 Minor constraint
 Medium constraint
 Major constraint








































Country	Segment*	Barrier analysis					Unimmunized children 2001	Coverage 2001	Country target 2005	Base case projection 2005
		Political and financial commitment	Physical infrastructure	Monitoring	Management/HR	Social mobilization				
• Angola	SI		●		○		370,000	41	N/A	50
• Benin	SI		○	◐			60,000	76	85	85
• Burkina Faso	SI		◐	●			300,000	41	80	80
• Burundi	SI			◐			68,000	74	85	85
• Cameroon	TU	●		◐	●	○	300,000	43	75	70
• Central African Republic	TU	●	●	◐	◐	○	100,000	23	64	15
• Chad	TU		●		●	◐	260,000	27	N/A	50
• Comoros	SI	●				○	8,000	70	88	88
• Congo	TU	◐	●	●	○	◐	90,000	31	N/A	35
• Côte d'Ivoire	SI				◐	○	230,000	57	80	70
• Democratic Republic of the Congo	TU		●	◐	●	◐	1,400,000	40	65	65
• Eritrea	SI		◐	●			10,000	93	90	80
• Ethiopia	TU	●	●		◐		1,200,000	56	65	65
• Gambia	SI	◐			○		2,000	96	100	100
• Ghana	SI					◐	120,000	80	94	85
• Guinea	SI	○		○	◐		200,000	43	85	67
• Guinea-Bissau	TU	●	◐		●		27,000	47	81	45
• Kenya	SI	◐		◐			250,000	76	90	82
• Lesotho	SI	◐		○	○		10,000	85	80	80

* TU = Turnaround; SI = Selective intervention; SA = Standalone

Source: WHO/UNICEF best estimates; Regional interviews; McKinsey analysis

COUNTRY BARRIER ANALYSIS AND FORECAST – AFRO (2/2)

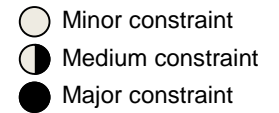
-  Minor constraint
-  Medium constraint
-  Major constraint

Country	Segment*	Barrier analysis					Unimmunized children 2001	Coverage 2001	Country target 2005	Base case projection 2005
		Political and financial commitment	Physical infrastructure	Monitoring	Management/HR	Social mobilization				
• Liberia	SI						60,000	62	95	80
• Madagascar	SI						300,000	55	94	75
• Malawi	SA						48,000	90	98	98
• Mali	SI						300,000	51	80	80
• Mauritania	SI						44,000	61	85	85
• Mozambique	SI						150,000	80	83	83
• Niger	TU						400,000	31	50	50
• Nigeria	TU						3,300,000	26	75	43
• Rwanda	SA						40,000	86	100	100
• Sao Tome and Principe	SA						200	82	96	96
• Senegal	SI						170,000	52	80	80
• Sierra Leone	TU						120,000	44	80	40
• Togo	SI						60,000	64	80	80
• Uganda	SI						450,000	60	85	80
• United Republic of Tanzania	SI						200,000	85	82	82
• Zambia	SI						92,00	78	88	80
• Zimbabwe	SI						100,000	75	96	77

* TU = Turnaround; SI = Selective intervention; SA = Standalone

Source: WHO/UNICEF best estimates; Regional interviews; McKinsey analysis

COUNTRY BARRIER ANALYSIS AND FORECAST – AMRO



Country	Segment*	Barrier analysis					Unimmunized children 2001	Coverage 2001	Country target 2005	Base case projection 2005
		Political and financial commitment	Physical infrastructure	Monitoring	Management HR	Social mobilization				
• Bolivia	SA						50,000	81	N/A	92
• Cuba	SA						1,000	99	N/A	99
• Guyana	SA						3,000	85	92	92
• Haiti	TU		●	○	●	◐	140,000	43	100	50
• Honduras	SA						10,000	95	N/A	94
• Nicaragua	SA						13,000	92	N/A	96

* TU = Turnaround; SI = Selective intervention; SA = Standalone

Source: WHO/UNICEF best estimates; Regional interviews; McKinsey analysis

COUNTRY BARRIER ANALYSIS AND FORECAST – EMRO

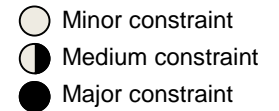
○ Small constraint
 ◐ Medium constraint
 ● Major constraint

Country	Segment*	Barrier analysis					Unimmunized children 2001	Coverage 2001	Country target 2005	Base case projection 2005
		Political and financial commitment	Physical infrastructure	Monitoring	Management HR	Social mobilisation				
• Afghanistan	TU	○	●	◐	●	◐	530,000	44	84	55
• Djibouti	SI		◐		●	◐	12,000	49	85	85
• Pakistan	SI		●	◐	◐		2,200,000	56	80	68
• Somalia	TU	●	◐	○	●	◐	300,000	33	64	64
• Sudan	TU	◐	●	●	◐	◐	560,000	46	83	70
• Yemen	SI				◐	○	200,000	76	90	90

* TU = Turnaround; SI = Selective intervention; SA = Standalone

Source: WHO/UNICEF best estimates; Regional interviews; McKinsey analysis

COUNTRY BARRIER ANALYSIS AND FORECAST – EURO

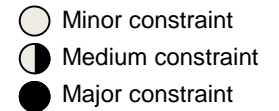


Country	Segment*	Barrier analysis					Unimmunized children 2001	Coverage 2001	Country target 2005	Base case projection 2005
		Political and financial commitment	Physical infrastructure	Monitoring	Management HR	Social mobilization				
• Albania	SA						2,000	97	94	94
• Armenia	SA						2,000	94	95	95
• Azerbaijan	SI			●	◐		2,000	98	80	80
• Bosnia and Herzegovina	SI	◐				○	4,000	91	96	86
• Georgia	SI	◐		○			8,000	86	88	88
• Kyrgyzstan	SA						1,000	99	100	100
• Republic of Moldova	SA						5,000	90	98	98
• Tajikistan	SI		●				25,000	83	98	90
• Turkmenis-tan	SA						6,000	95	99	99
• Ukraine	SA						4,000	99	97	97
• Uzbekistan	SA						16,000	97	99	99

* TU = Turnaround; SI = Selective intervention; SA = Standalone

Source: WHO/UNICEF best estimates; Regional interviews; McKinsey analysis

COUNTRY BARRIER ANALYSIS AND FORECAST – SEARO

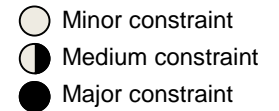


Country	Segment*	Barrier analysis					Unimmun-zed children 2001	Coverage 2001	Country target 2005	Base case projection 2005
		Political and financial commitment	Physical infrastructure	Monitoring	Management HR	Social mobilization				
• Bangladesh	SI		○	◐			690,000	83	90	90
• Bhutan	SA						9,000	88	95	95
• Democratic People's Republic of Korea	SI	●	○	◐	◐		240,000	37	90	75
• India	TU	○		●	●	◐	8,600,000	64	80	69
• Indonesia	SI	◐		◐	●		1,700,000	60	92	83
• Myanmar	SI	◐	○		●		310,000	72	88	85
• Nepal	SI	○			◐		220,000	72	89	89
• Sri Lanka	SA						3,000	99	99	99

* TU = Turnaround; SI = Selective intervention; SA = Standalone

Source: WHO/UNICEF best estimates; Regional interviews; McKinsey analysis

COUNTRY BARRIER ANALYSIS AND FORECAST – WPRO



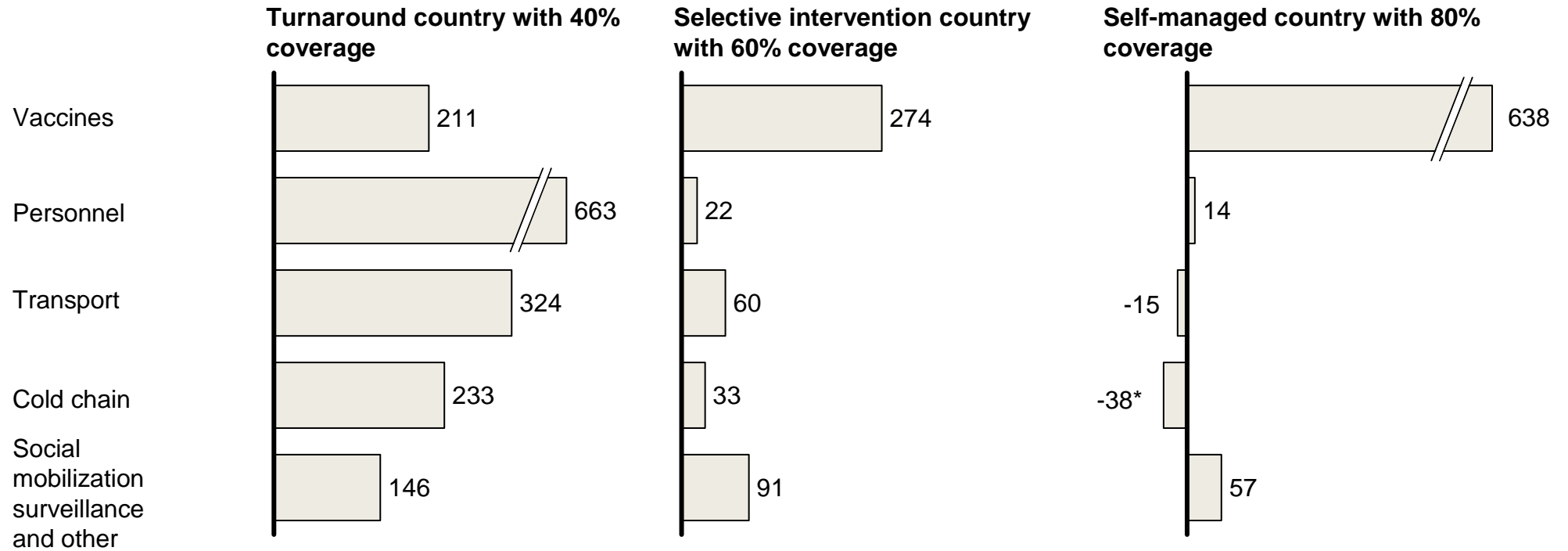
Country	Segment	Barrier analysis					Unimmunized children 2001	Coverage 2001	Country target 2005	Base case projection 2005
		Political and financial commitment	Physical infrastructure	Monitoring	Management HR	Social mobilization				
• Cambodia	SI	◐	●				180,000	60	80	80
• China	SI			●			3,900,000	79	92.7	85
• Lao People's Democratic Republic	TU	●	●	◐	◐		110,000	40	90	45
• Mongolia	SA									
• Papua New Guinea	TU	●	◐	◐	●		3,000	95	N/A	96
• Solomon Islands	SI				◐		67,000	56	N/A	50
• Viet Nam	SA						4,000	78	N/A	85
							31,000	98	95	95

* TU = Turnaround; SI = Selective intervention; SA = Standalone

Source: WHO/UNICEF best estimates; Regional interviews; McKinsey analysis

COUNTRIES INVESTMENT PRIORITIES REFLECT THE BARRIER SITUATION

Expected increase in spending, 2005
Percent of baseline budget 2001



Country characteristics

- Country with weak health service delivery system
- Large investments in HR and equipment
- Mainly supply-driven coverage increase

- Basic health services delivery system in place
- Investments in transport and social mobilization
- Combination of supply and demand factors

- Country with a functioning primary health service delivery system
- Introduction of new vaccine (pentavalent) is main investment driver
- Large investments in social mobilization
- Mainly demand factor driven

* A one-time investment in cold chain is made during the period

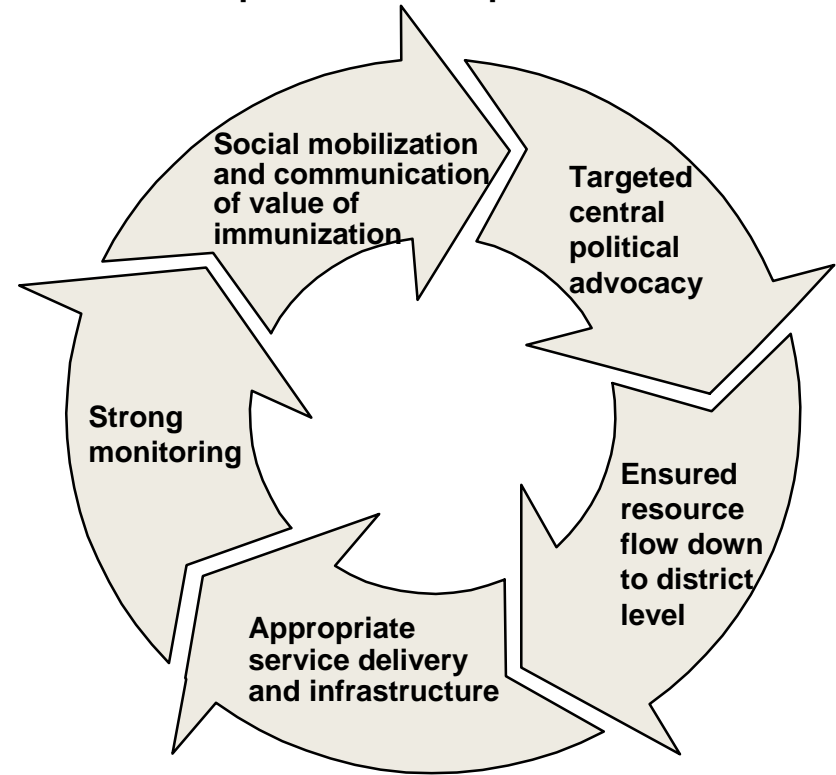
Source: Country immunization budgets, McKinsey analysis

BARRIERS ARE OFTEN LINKED IN A DYNAMIC CYCLE

Medium/low performing countries



“Best practice” examples



Learnings from low performing countries:

- Broad set of barriers and limited political commitment - often due to competing priorities
- Low standards of service delivery - often due to delayed financial resource allocation
- No or poor supervision and monitoring/follow up of service delivery
- Low community awareness/demand for immunization

Learnings from high performing countries:

- Commitment at all levels and prioritization of immunization
- Structured organization (centralized or decentralized) and focused approach
- Rigorous follow-up and actions based on data
- High community awareness on immunization

A NUMBER OF EFFECTIVE INTERVENTIONS WERE IDENTIFIED BY PROFILING IMMUNIZATION AND OTHER INTERNATIONAL INITIATIVES

BEST-PRACTICE ASSESSMENT

Sample of assessed initiatives*

Global level

- Immunization specific:
 - Polio Eradication NID's and other ADCs
 - GAVI-related mechanisms
- Other global disease initiatives:
 - TB/DOTS annual consultations
 - HIV/AIDS advocacy campaigns
 - Onchoscerciasis community directed treatment

National level

- Sustainable outreach services
- District level micro-planning
- Infrastructure design and build-up
- Channeling

Other

- Joint public-private partnerships for improved vaccine delivery
- Consumer marketing approaches to vaccination



- Magnitude and type of barriers vary significantly across countries
- No one-size-fits-all solution. Instead, a country-by-country approach is necessary to tailor interventions to needs

* Full profiles available, effectiveness is based on reputation/interview findings and controlled studies when available
Source: WHO; UNICEF; McKinsey Team Analysis

PEER-REVIEWED STUDIES ON COVERAGE SOLUTIONS WERE ASSESSED

BEST-PRACTICE ASSESSMENT

Category	Mechanism	Description
Improving supply	<ul style="list-style-type: none"> • Training • Monitoring/supervision • Outreach teams • Community Health Workers (CHW) • Changes in immunization schedule 	<ul style="list-style-type: none"> • Improving the performance of the staff • Improving reporting and feedback • Medically qualified mobile teams • Training community members for immunization services • Adjusting the schedule to the needs of the mother and child
Increasing demand	<ul style="list-style-type: none"> • Channeling • Reminders • Increasing awareness • Less missed opportunities 	<ul style="list-style-type: none"> • Door-to-door canvassing, identifying unimmunized children • Reminding the non-attendees • Communication campaigns • Waiting times reduction
Targeting supply & demand	<ul style="list-style-type: none"> • Mass campaigns • Overall reorganization 	<ul style="list-style-type: none"> • Central campaigns to large populations • Reorganization of health system or immunization program

Key takeaway

- No category performed better than others
- Average costs showed wide variation
- Outreach teams are relatively expensive
- Peer training has relatively low cost

MANY INNOVATIVE APPROACHES TO INCREASE COVERAGE AT THE COUNTRY LEVEL

BEST-PRACTICE ASSESSMENT

Country	Initiative	Impact
Nigeria	<ul style="list-style-type: none"> • District level micro-planning in Nigeria through UNICEF - supportive supervision and follow-up as part of a broader Child Survival program 	<ul style="list-style-type: none"> • Recorded 10-30% annual increases in coverage in selected districts
Bangladesh	<ul style="list-style-type: none"> • Public/private partnership led by BRAC to train community leaders (head masters/Imams) to support routine EPI and disease surveillance 	<ul style="list-style-type: none"> • Significantly improved service delivery and community acceptance
Indonesia	<ul style="list-style-type: none"> • “Dokter Kecil” (little doctors) program introduced by local health authorities - training children to broaden immunization awareness among mothers/families in remote communities 	<ul style="list-style-type: none"> • Improved immunization coverage across six villages from 33% to 81%, 1992–1994
Nepal	<ul style="list-style-type: none"> • Immunization promoted through mass-media and inter-personal communication, via health workers, local leaders, traffic-police, rickshaw drivers, among others 	<ul style="list-style-type: none"> • Government of Nepal is lead investor and campaign is expected to succeed
Malawi	<ul style="list-style-type: none"> • Public/private partnership led by ‘Tea plantations’ – increased employee access to other primary health interventions (i.e., Vitamin A supplements) 	<ul style="list-style-type: none"> • Increase in number of child health clinics from 5 to 17 in two years in Thyolo and Mulange districts
Indonesia and Tanzania	<ul style="list-style-type: none"> • Benchmarking of health-post performance data to share best practices and achieve competitive performance improvements 	<ul style="list-style-type: none"> • 5-10% coverage improvements within one year in certain low coverage districts

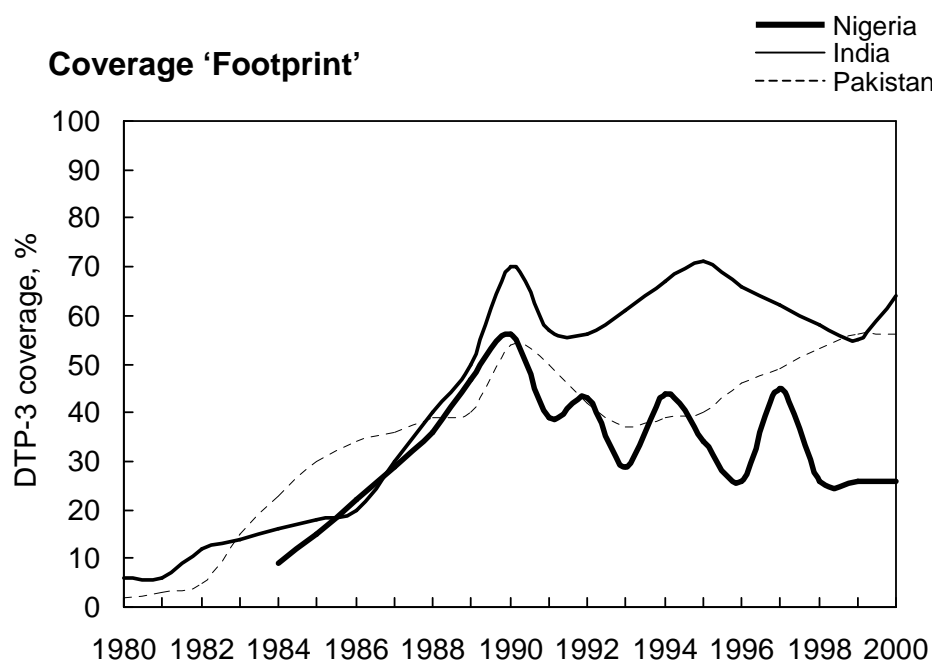
LESSONS CAN ALSO BE LEARNED FROM OTHER PUBLIC HEALTH INITIATIVES

BEST-PRACTICE ASSESSMENT

<u>Initiative</u>	<u>Impact</u>	<u>Key learnings</u>
<ul style="list-style-type: none"> • TB- initiatives in Peru 	<ul style="list-style-type: none"> • Contributed to dramatic reduction in TB mortality in Peru from 13,000 deaths in 1990 to 3,000 in 2000 	<ul style="list-style-type: none"> • Well-managed program with rigorous record keeping and supervision of patient treatment
<ul style="list-style-type: none"> • HIV/AIDS campaigns in Cambodia 	<ul style="list-style-type: none"> • Steady decrease in HIV prevalence in Cambodia ~3.2% in 1997 to ~2.3% in 2000 	<ul style="list-style-type: none"> • Evidence based advocacy - leveraging partner networks (i.e., NGO's, UN agencies) to deliver high-profile campaigns towards 'at-risk' groups
<ul style="list-style-type: none"> • Polio eradication in Laos 	<ul style="list-style-type: none"> • Successful increase in Polio coverage from 20% in 1992 to 70% in 1996, in addition to the re-establishment of a functioning immunization system and basic healthcare services 	<ul style="list-style-type: none"> • Infrastructure strengthening and surveillance improvements through provision of cold chain, vehicles, and laboratory equipment
<ul style="list-style-type: none"> • Onchocerciasis in West Africa 	<ul style="list-style-type: none"> • Significant reduction in Onchocerciasis from 1% of "at risk" population in 1984 to 0.3% in 1994 	<ul style="list-style-type: none"> • Flexible and responsive strategies for social mobilization implemented by countries themselves (i.e., "Community Directed Treatment with Ivermectin")

COMMON BARRIERS AND SUCCESS FACTORS FROM COUNTRY CASE STUDIES

Medium/low performing countries



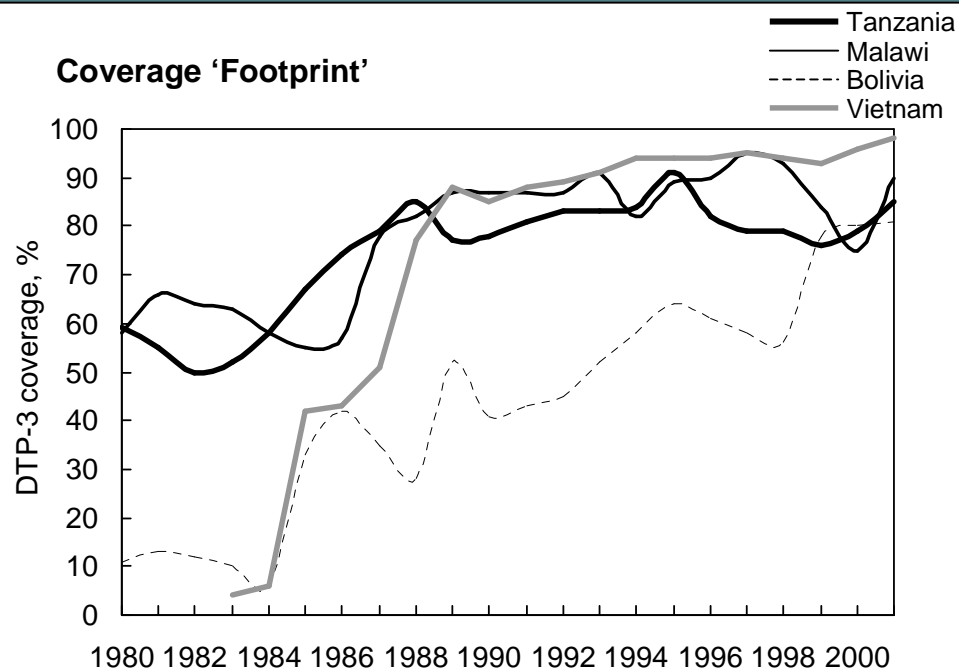
Coverage Trend

- Rapid increase in coverage in 1980s followed by post-UCI slump and stagnation/slow recovery throughout 1990s

Key Barriers

- Limited political commitment to immunization at state and/or federal government level
- Overcomplicated health systems, weak managerial accountability, and inadequate sub-national resource flows
- Low standards of service delivery
- Low community awareness/demand for immunization

Best practice countries



Coverage Trend

- Rapid increase in coverage under UCI and sustained high-level coverage throughout 1990s

Key Success Factors

- Immunization prioritized by health administration – district micro-plans in place
- Responsibility for immunization delegated to districts
- Well-coordinated service delivery – frequently leveraging third-parties (i.e., NGO's)
- Innovative, community-based approaches to social mobilization

COUNTRY CASE STUDIES: COMPARING THE COST OF THREE STRATEGIES TO INCREASE COVERAGE IN MAURITANIA

Description

Fixed centers

- Routine services at the MHC centers integrated with other PHC programs
- Covered urban population

Mobile teams

- Nurses visiting communities 3 times/year
- Covered rural areas

Mass campaigns

- 3-month campaign, total 9 days. Nurse- and volunteer- driven
- Covered urban sites

Cost per FIC (USD)

under 1 year

34*

245**

157**

under 5 years

11*

29**

15**

Distribution of costs

Percent

Salaries

15

50

35

Vaccines

11

5

3

Transport

13

14

12

Media

0

0

5

Training/supervision

3

1

20

General costs

0

4

0

Supplier

14

14

19

Buildings

22

0

1

Vehicles

5

9

0

Cold store equipment

16

3

5

Total

100

100

100

* Using average cost base

** Incremental cost

Source: Pegurri, Fox-Rushby and Walker: Effects, cost and cost-effectiveness of interventions, June 2002, London School of Hygiene and Tropical Medicine

USING COUNTRIES OWN PLANS PROVIDES OPPORTUNITY TO REACH 80% DISTRICT COVERAGE BEFORE 2010, SUPPORTING MILLENNIUM DEVELOPMENT GOAL

Key observations

GAVI adopted the 80/80 target...

and approved country plans and targets . . .

with the potential to reach 80/80 in 2007/08 . . .

. . . which will require additional targeted support in some countries

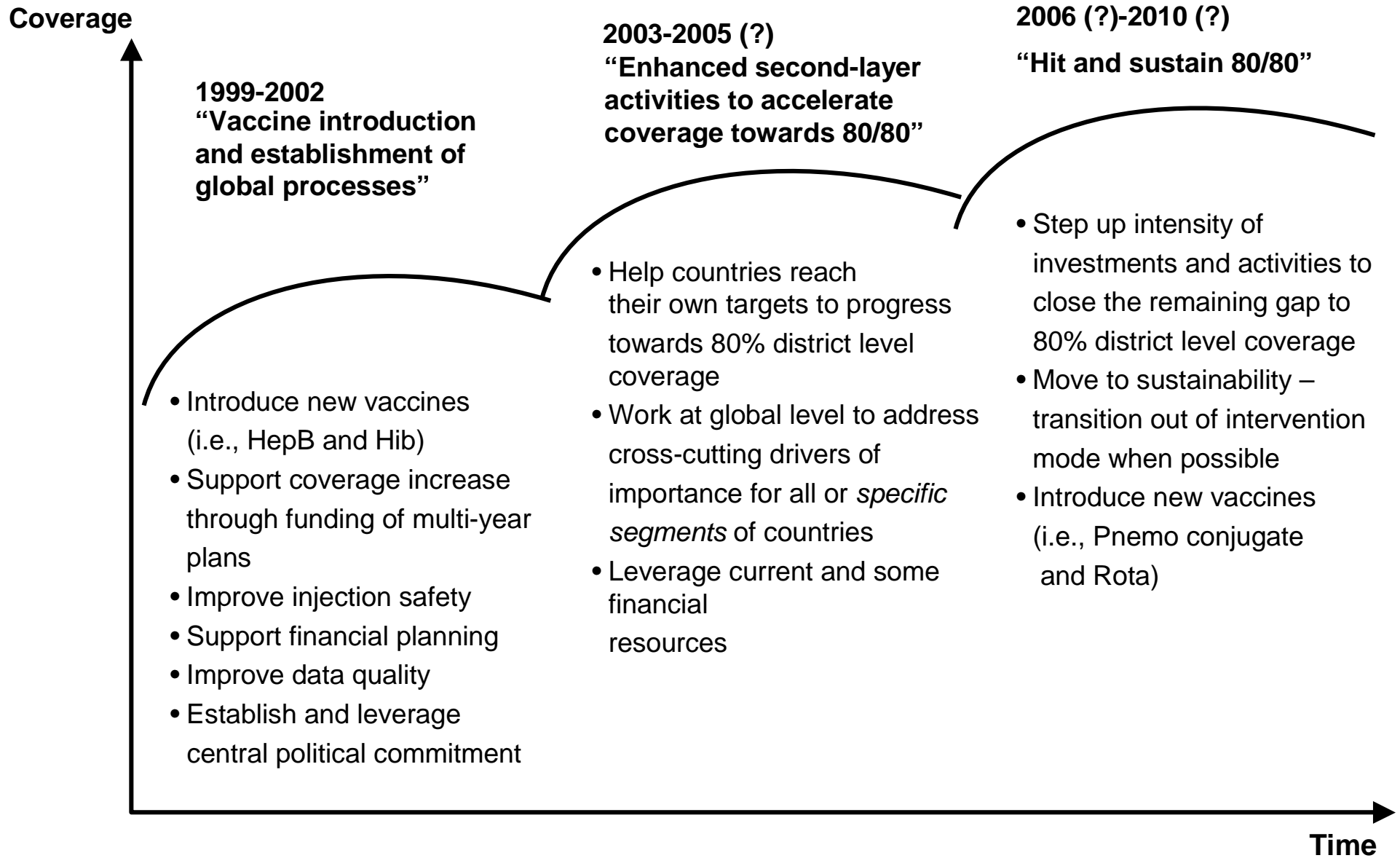
Supporting findings

- 80/80 target in 2005 – one of GAVI’s milestones
- However, target not optimal to guide the strategy
- Millennium Development Goal calls for a global goal of 90% national and 80% district level coverage by 2010
- GAVI committed ISS support based on countries multi-year plans
- Countries have submitted ambitious plans and support related to countries own targets
- Base case forecast demonstrates that GAVI could reach the 80/80 target by 2007/08, if all countries reach their targets
- Some 25-30 countries are not expected to reach their own targets in 2005
- Of these, some 15 countries have already missed their own target in 2001
- Helping countries reach their target would enable GAVI to reach 80% district coverage before 2010 which is in advance of the Millennium Development Goal

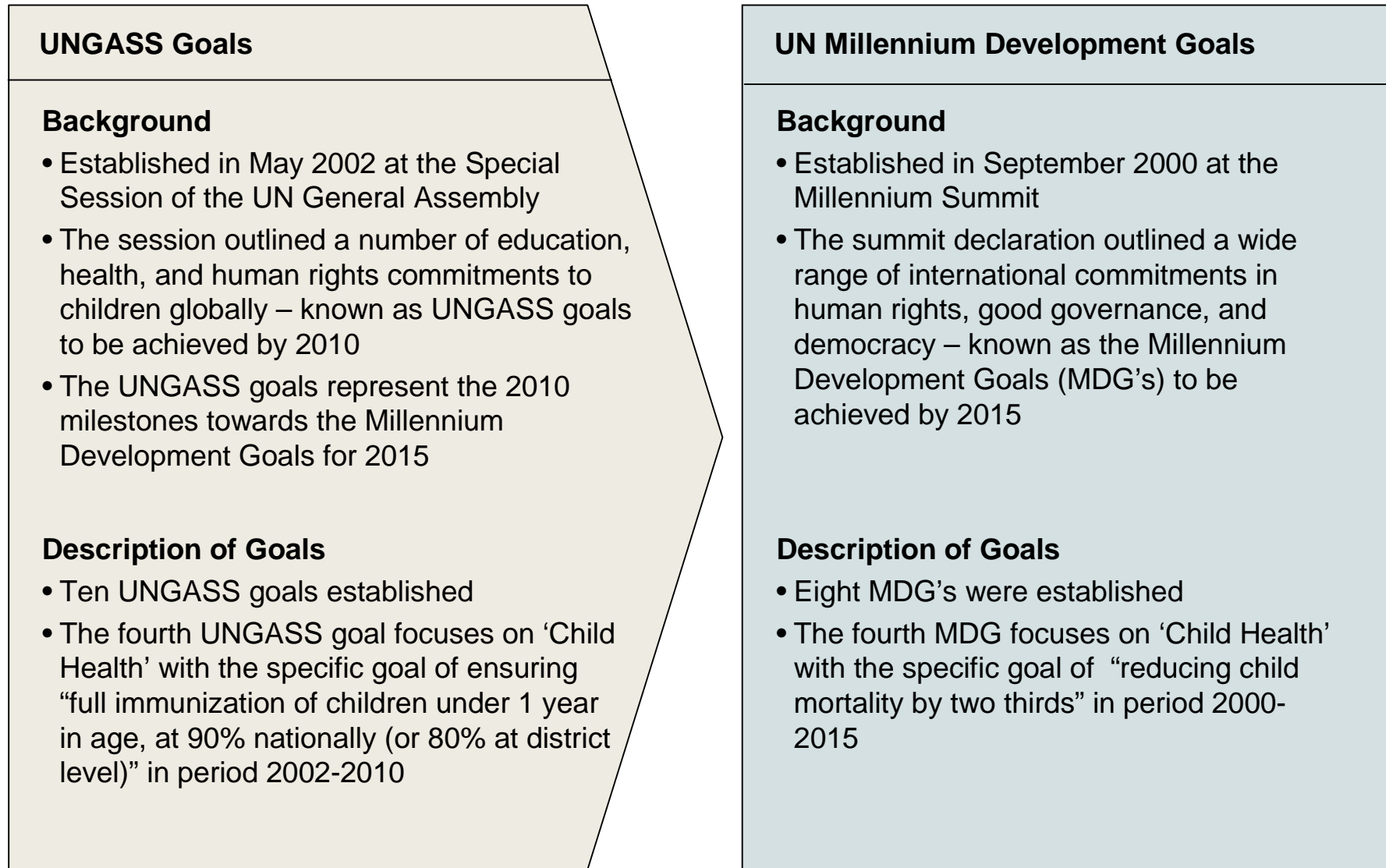
Vision and ambition level

- Reach sustainable 80% district coverage before 2010 by supporting countries own ambitions
- Fully leverage financial and non-financial capacity of the Alliance
- Focus support based on need, ability to respond, and GAVI ability to assist

GAVI MAY BE ENTERING A NEW STRATEGIC ERA



THE GLOBAL UNGASS TARGET SUPPORTS THE MILLENNIUM DEVELOPMENT GOALS



GUIDING PRINCIPLES FOR STRATEGY DESIGN BASED ON KEY LEARNINGS FROM SITUATION ANALYSIS

Principle

Local solutions are necessary

Country ownership of goals and plans is essential

Supplemental assistance should be directed where it is needed

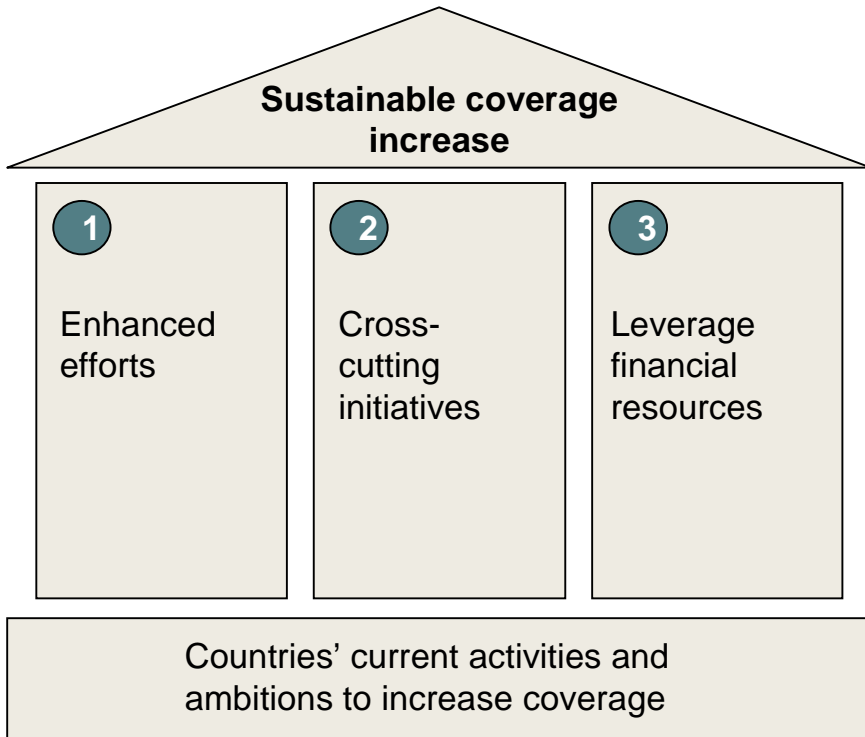
Countries' experiences are a valuable and under-leveraged asset

GAVI will need to be flexible in its assistance

Rationale

- The situation in each country varies significantly. Hence, localized, tailored solutions are necessary. Whether solutions should address the immunization system or the broader health sector will have to be defined at a national level and ultimately decided by countries themselves
- The success and sustainability of a plan is determined by how much ownership/accountability countries have over it
- Countries will be expected to commit financial and non-financial resources to the plan
- Some countries will achieve their goals with currently committed financial and non-financial resources, while other will need substantial multi-lateral/bi-lateral support
- A rich base of potential best practices can be shared between countries as they address similar barriers and develop local strategies to increase coverage
- As a collaborative alliance, GAVI will be positioned to help different countries in different ways. GAVI needs the flexibility to marshal the best (and most appropriate) resources for each situation



THE PROPOSAL OUTLINES A STRATEGIC FRAMEWORK FOR GAVI TO MARSHALL PARTNERS CAPABILITIES IN SUSTAINABLE COVERAGE INCREASE



Key elements of the strategy

- 1 Enhanced efforts**
 - Additional support focused on high potential situations in countries missing their target significantly
 - Nature of intervention tailored to specific country barriers and opportunities
 - Driven through enhanced partnership between government and partners, overseen and coordinated by facilitating partner
- 2 Cross-cutting initiatives**
 - Focused advocacy
 - Prioritized FSPs
 - Targeted DQAs
 - Vaccine delivery management and economics initiative
 - Knowledge-sharing network
 - Training program development and consolidation
- 3 Leverage financial resources**
 - Utilize recovery situation to attract additional funds
 - VF mechanism “window” to support design of recovery programs
 - VF support for enhanced efforts on a partial basis when right conditions
 - Funding of cross-cutting activities

THE STRATEGIC FRAMEWORK HAS THREE DISTINCT ELEMENTS

 Modified current
 New

Current

Enhanced access strategy

Enhanced efforts



- Lack of mechanisms to capitalize on high potential situations where countries are falling behind own ambitions



- Targeted program facilitated through GAVI with the aim of getting countries “back on track”

Cross-cutting initiatives

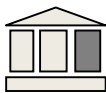


- Several broadly applied GAVI mechanisms believed to drive coverage often applied across countries



- Focused advocacy
- Prioritized FSPs
- Targeted DQAs
- Vaccine delivery management and economics initiative
- Knowledge-sharing network
- Training program development and consolidation

Leverage financial resources

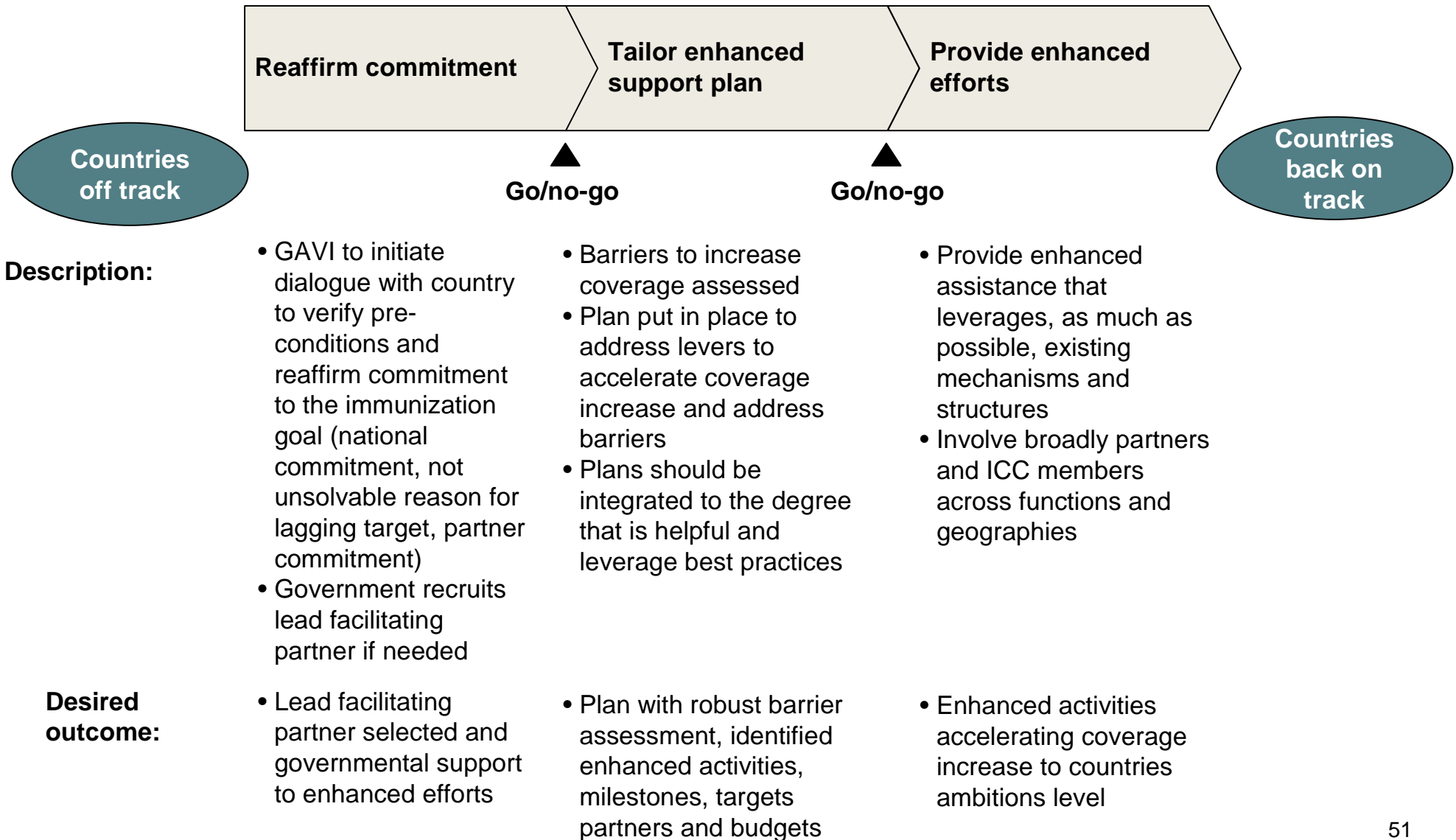
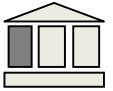


- Funding of new vaccines, ISS funding, and injection safety
- Funding of Task Forces, Secretariat, and other critical functions



- Continued ISS funding
- Funding for enhanced efforts
- Additional partial funding of programs
- Funding of refined and new initiatives

SUMMARY OF KEY STEPS IN THE DESIGN AND IMPLEMENTATION OF ENHANCED EFFORTS



OVERVIEW OF ROLES IN THE PROVISION OF ENHANCED EFFORTS



	Description of role	Basic requirements
Country/ government	<ul style="list-style-type: none"> • Leadership role throughout the design and execution of activities • Responsibility for reaching coverage target, selection of “lead facilitating partner,” etc. 	<ul style="list-style-type: none"> • High level of commitment to recovery plan
Lead facilitating partner	<ul style="list-style-type: none"> • Facilitating and support-leadership role • Joint responsibility for the design and oversight of recovery plan - role varies from ‘Advisory’ to ‘Project management’ depending on results of situation analysis and agreement with country • Could be a multilateral, bilateral, or NGO partner 	<ul style="list-style-type: none"> • Managerial capacity to facilitate understanding and design of plan • Good local knowledge of coverage barriers and other partners • Proven ability to work with partners in implementation • Core skills in relevant area
ICC	<ul style="list-style-type: none"> • Advisory role • Drawn into effort by government/facilitating partner but without formal responsibility for recovery program 	<ul style="list-style-type: none"> • Agreement to provide cooperative support to process
GAVI Board	<ul style="list-style-type: none"> • Initiator and facilitator • Active role in selection of countries 	<ul style="list-style-type: none"> • High-level of commitment to recovery planning process
ITF and Secretariat	<ul style="list-style-type: none"> • Supportive function • Identification of countries for enhanced efforts • ITF monitoring sub-group responsible for review and monitoring of program reports 	<ul style="list-style-type: none"> • Supportive capacity to participate in expanded monitoring role and country contact

FUNCTION AND SELECTION OF LEAD FACILITATING PARTNER



Description

Function

- Support, leadership, and facilitation
 - Facilitates program design and implementation process (should aim to objectively balance “outside-in” perspective with “governmental view”)
 - Dependent on situation, plays active role in implementation or participates in design of program only

Selection criteria

- Longstanding relationship with government and key stakeholders
- Strong relationship and ability to work productively with other GAVI partners within relevant country
- ICC membership
- Ability to commit human resources

Selection process

- Country encouraged to contact their main contact organization, which will serve a lead facilitating partner
- Candidates supported by the GAVI Secretariat or Board sub-group

PRELIMINARY LIST OF CANDIDATE COUNTRIES FOR ENGANCED EFFORTS



Potential focus

Countries missing target with >10% or >100,000 children	Percentage of GAVI unimmunized	Target 2001	Performance 2001	Missed children to target	Ability to respond	Comments
• India	28	65	64	240,000	High	• Problem concentrated to certain areas. Polio as competing priority
• China	13	93	79	2,500,000	High	• High commitment
• Nigeria	11	43	26	750,000	Medium	• Polio eradication competing priority and generally low system performance
• Pakistan	7	65	56	450,000	High	• Uncertainty on coverage level. Polio as competing priority
• Indonesia	6	78	60	780,000	High	• Decentralization disturbance. Uncertainty on current coverage level
• Sudan	2	67	46	220,000	Low	• Conflict
• Burkina Faso	1	60	41	98,000	High	• High commitment.
• Madagascar	1	79	55	160,000	High	• High absorption capacity and ability to recover.
• DPR Korea	1	63	37	98,000	Low	• Low commitment, high uncertainty on current coverage situation.
• Côte d'Ivoire	1	73	57	87,000	Low	• Conflict
• Guinea	1	70	43	91,000	Medium	• Management difficulties
• Haiti	<1	80	43	90,000	High	• High commitment and political stabilization. Very stretched target
• Lao PDR	<1	79	40	72,000	Medium	• Managerial challenge. Highly outreach dependent. Stretched target
• Sao Tome & Principe	<1	95	82	100	High	• Relatively high current performance

ADDITIONAL “WATCH LIST” COUNTRIES SLIGHTLY UNDERPERFORMING



Countries missing target by >5% and ≤10%	Percentage of GAVI unimmunized	Target 2001	Performance 2001	Missed children relative to target	Ability to respond	Comments
• Mali	1	61	51	53,000	Medium	<ul style="list-style-type: none"> • Outreach dependent • Data quality problem and partial lack of commitment
• Ghana	<1	87	80	43,000	High	<ul style="list-style-type: none"> • High commitment • Decentralized system with regional variations
• Zimbabwe	<1	81	75	26,000	Low	<ul style="list-style-type: none"> • Political instability
• Benin	<1	83	76	4,300	Medium	<ul style="list-style-type: none"> • High potential to manage situation
• Bhutan	<1	94	88	4,000	High	<ul style="list-style-type: none"> • Well-organized system with high political commitment
• Republic of Moldova	<1	98	90	4,000	High	<ul style="list-style-type: none"> • Generally high performing

* Target missed by >5% and ≤10%

Source: WHO/UNICEF best estimates; GAVI; McKinsey analysis

SUGGESTED REFINEMENTS OF EXISTING GAVI MECHANISMS



Situation

Suggested approach

Focused advocacy

- GAVI seen as a key player in immunization advocacy
- To date, the alliance does not focus advocacy or do special efforts towards countries with political commitment barriers
- Best practice advocacy uses focused and intense advocacy efforts (e.g., polio)

- Focus advocacy strategy on the 14 countries (21% of the unimmunized) believed to have pronounced political commitment barriers (leverage overlap with countries proposed for prioritized)
- Secondary focus advocacy to some 12 medium group countries

Prioritized FSPs

- FSPs are an effective tool to increase political commitment
- FSP's available from 12 countries with 25-30 planned in 2003

- Prioritize FSPs towards 12 countries (16% of the unimmunized) with lowest spending on health care and political/financial commitment
- Secondary focus advocacy to some additional 12 medium group countries

Targeted DQAs

- DQAs broadly applied in countries
- Expensive and time consuming

- Target DQAs towards segment of countries with primary and secondary monitoring and reporting barriers

LIST OF COUNTRIES ACCORDING TO BARRIERS

	Major barrier			Medium barrier			Minor barrier		
Political/ financial commitment	Cameroon CAR Comoros DPR Korea Ethiopia	Guinea-Bissau Lao PDR Mali Niger Nigeria	Papua N G Somalia Togo Zimbabwe	Bosnia and Herzegovina Cambodia Congo	Gambia Georgia Indonesia Kenya	Lesotho Liberia Myanmar Sudan	Afghanistan Guinea India Nepal Sierra Leone		Potential Advocacy and FSP focus
Physical infrastructure and equipment	Afghanistan Angola Cambodia CAR Chad	Congo DR Congo Ethiopia Haiti Lao PDR Madagascar	Pakistan Sierra Leone Sudan Tajikistan Uganda	Burkina Faso Djibouti Eritrea Guinea-Bissau Mozambique	Nigeria Papua N G Somalia U R Tanzania		Bangladesh Benin DPR Korea Mauritania Myanmar		
Monitoring/ Information systems	Azerbaijan Burkina Faso China Congo	Eritrea India Mozambique Sudan		Afghanistan Bangladesh Benin Burundi Cameroon CAR	DPR Korea DR Congo Indonesia Kenya Lao PDR Mali	Mauritania Niger Pakistan Papua N G Senegal Sierra Leone	Georgia Guinea Haiti Lesotho Madagascar	Nigeria Somalia	
Management/ Human Resources	Afghanistan Cameroon Chad DR Congo Djibouti Guinea-Bissau	Haiti India Indonesia Liberia Myanmar Niger	Nigeria Papua N G Senegal Sierra Leone Somalia Zambia	Azerbaijan CAR Côte d'Ivoire DPR Korea Ethiopia Guinea	Lao PDR Madagascar Mozambique Nepal Pakistan Solomon Islands	Sudan Togo Uganda Yemen Zimbabwe	Angola Congo Gambia Lesotho UR Tanzania		Potential DQA focus
Social mobilization				Afghanistan Chad Congo DR Congo Djibouti	Ghana Haiti India Liberia Mozambique	Nigeria Senegal Sierra Leone Somalia Sudan	Bosnia and Herzegovina Cameroon CAR Comoros	Côte d'Ivoire Yemen	

* Most important barriers according to evaluation grid (page 33)

Source: Country interviews Regional Working Groups, other experts

OTHER SUGGESTED CROSS-CUTTING INITIATIVES



Situation

Vaccine delivery management and economics initiative

- Many of initiatives focused to increase funding; but potential large cost reduction potential not addressed

Knowledge-sharing network

- Potential for more sharing of management best practices directly between countries (e.g., at bi-annual meetings)
- Supplement current model that is focused on country to global/regional expert and back to country

Training consolidation

- Many providers and countries struggle to choose right programs or combinations of programs resulting in gaps and overlaps

Suggested approach

- Vaccine delivery management and economics operations research to develop technologies and approaches to enhance efficiency
- Piloting of effective approaches in specific operational areas (logistics, HR etc)
- Roll-out to countries of findings

- Peer-to-peer network
- Knowledge manager

- Develop a recommended training program
- Possibly consolidation to reduce number of overlaps and gaps across GAVI partners

OUTLINE OF VACCINE DELIVERY MANAGEMENT AND ECONOMICS INITIATIVE



Vision and objective for task force Continuously work to reduce the cost of high quality routine immunization in VF-eligible countries and thereby: (1) free up committed resources to immunize additional children and (2) attract new resources through increased value proposition of immunization for both countries and donors.

Leadership, members A two phased set-up is proposed:
Pre-project set-up: FTF identifies and sets up team that drives time-limited (4-6 month) project to evaluates the most important leverage points for the initiative and suggests an organizational structure based identified focus areas. A steering committee/sub-group of Board with partner representatives should be establishes to provide guidance and ensure broad partner input in early set-up phase.
Project set-up: Based on outcome of phase 1, the initiative is set-up either as part of the FTF or as a separate task force. Our current hypothesis is that the initiative would benefit from having a two-fold focus on research/scientific investigation of opportunities and a pilot-based country implementation.

Hosting If established as a separate task force the initiative would need to be hosted by a GAVI partner. The selection of hosting partner should be based on the partners fit with identified leverage points.

Major expected end-products Pre-project phase; List of high value opportunities for cost reduction and how they can be addressed. Short list of host candidate organizations including evaluation of different proposed opportunities.
Project set-up and operations: Once the initiative is established, its goal should be to identify relevant cost drivers for interventions in individual countries and provide solutions for addressing them as well. A relevant measurement of performance could be number of pilots, cost reduction as percent of total immunization cost or/and in individual countries. Also, the initiative should manage a research portfolio.

Timing Pre-project phase: 4-6 month
Project set-up and operations: Should be driven by country demand and ultimately self-sustaining

Budget To establish the initiative, an estimated \$1.2-2 million over the next 12-month period is required. This includes costs primarily related to the starting phase. As the initiative enables countries to reduce their immunization costs, it should over time have the potential to become self-funding through the value created for countries.

OUTLINE OF KNOWLEDGE SHARING NETWORK INITIATIVE



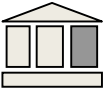
Vision and objective for task force/team	Provide a high quality, easy accessible knowledge exchange forum for EPI managers and their central teams that enables them to (1) get access to new approaches, solutions and ideas to solve immunization challenges (2) contact and network with peers in all VF-eligible countries, (3) post their own approaches and solutions and receive feed-back from peers.
Leadership, members	Small knowledge management staff (1-1.5 FTE)
Hosting	Initiative could be hosted by partner organization with established knowledge development/training functions (e.g. PATH, WHO, UNICEF, CDC) or the GAVI secretariat
Major expected end-products	Web technology enabled system for peer-to-peer and GAVI to country information sharing. Evaluation should be based on how the initiative is perceived by countries (e.g. site visits, feed-back reports, posted approaches, solutions)
Timing	8-12 month test phase with following evaluation and potential renewal of TORs
Budget	Estimated \$300.000 for first 12 month period

OUTLINE OF TRAINING CONSOLIDATION INITIATIVE



Vision and objective for task force/team	Provide outstanding training programs for EPI managers and their central teams that maximally leverage countries and partners experience and knowledge.
Leadership, members	The Immunization Training Action Group (ITAG) could identify a team for the time limited effort. The team should be composed of partners that provide EPI training and country representatives
Hosting	ITAG should select host based on proposed team composition
Major expected end-products	Core curriculum for EPI managers and career-linked training program
Timing	4-6 month time limited project
Budget	Estimated \$100.000-200.000 and dependent on size of team

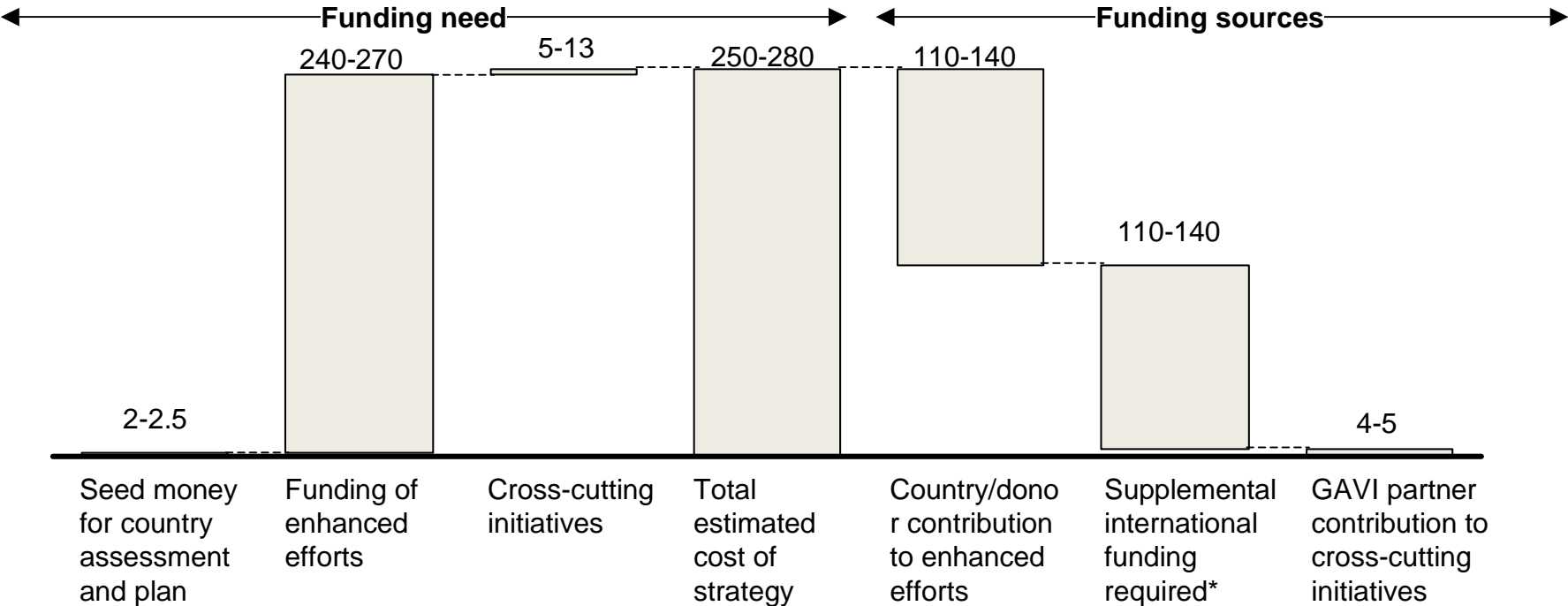
THE COST OF THE STRATEGY IS VERY DEPENDENT ON COUNTRIES OWN FUNDING CAPABILITY



Funding scenario, 2003–2006

USD million

INDICATIVE

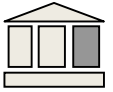


Key assumptions

- Per country cost of USD 80,000-120,000
- Funded in all countries or only missing targets
- Non-recurring USD 7–15/FIC scale-up cost over three years
- Based on number of unimmunized in gap from base case to country target
- Vaccine management estimated at ~1/2 of FTF budget
- Small investment for knowledge-sharing network
- Training consolidation through time limited effort
- Potential to cover a 40-60% of costs through country budget/donor contributions
- Establishment of new Window for funding
- Initiatives hosted at GAVI partner sites. Funding through partner contribution

* Based on rough assessment of available funding in sub-set of VF-eligible countries

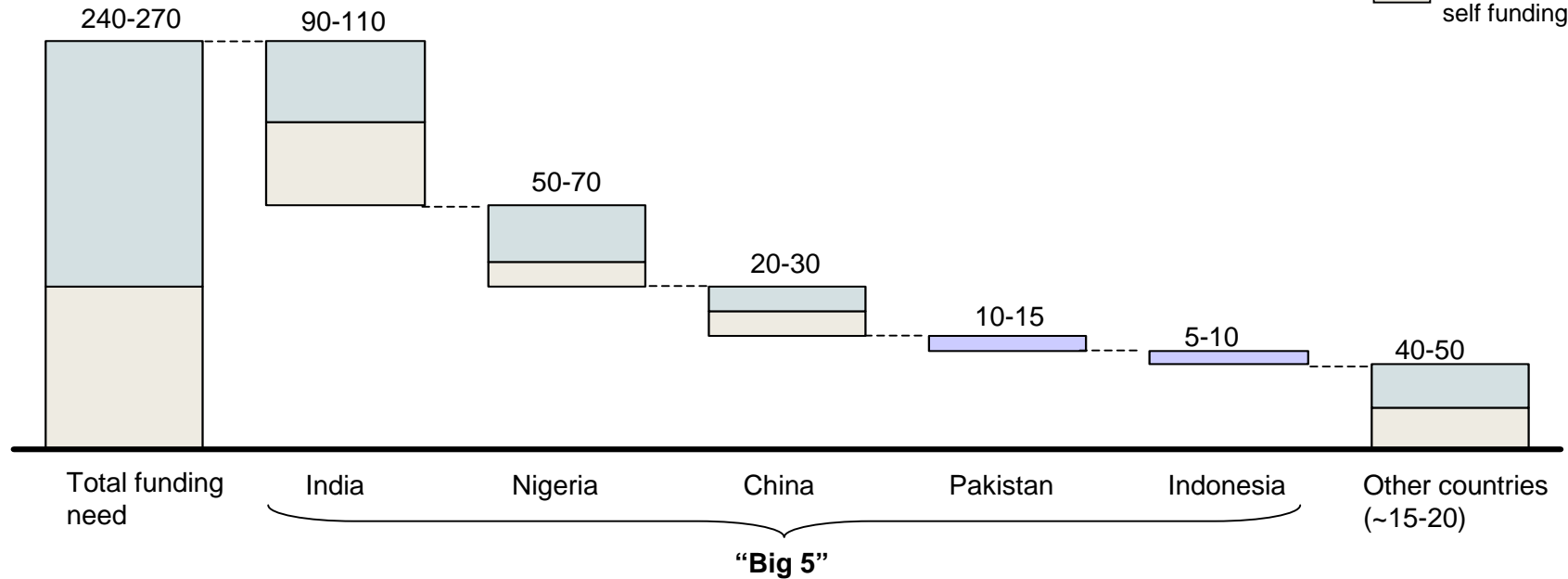
SOME LARGE COUNTRIES DRIVE THE COST OF THE STRATEGY, BUT ALSO HAVE SIGNIFICANT POTENTIAL FOR NON-VF/GAVI FUNDING



INDICATIVE

□ Potential for self funding

Estimated cost of enhanced efforts
USD million



Assessment of funding situation (not exhaustive)

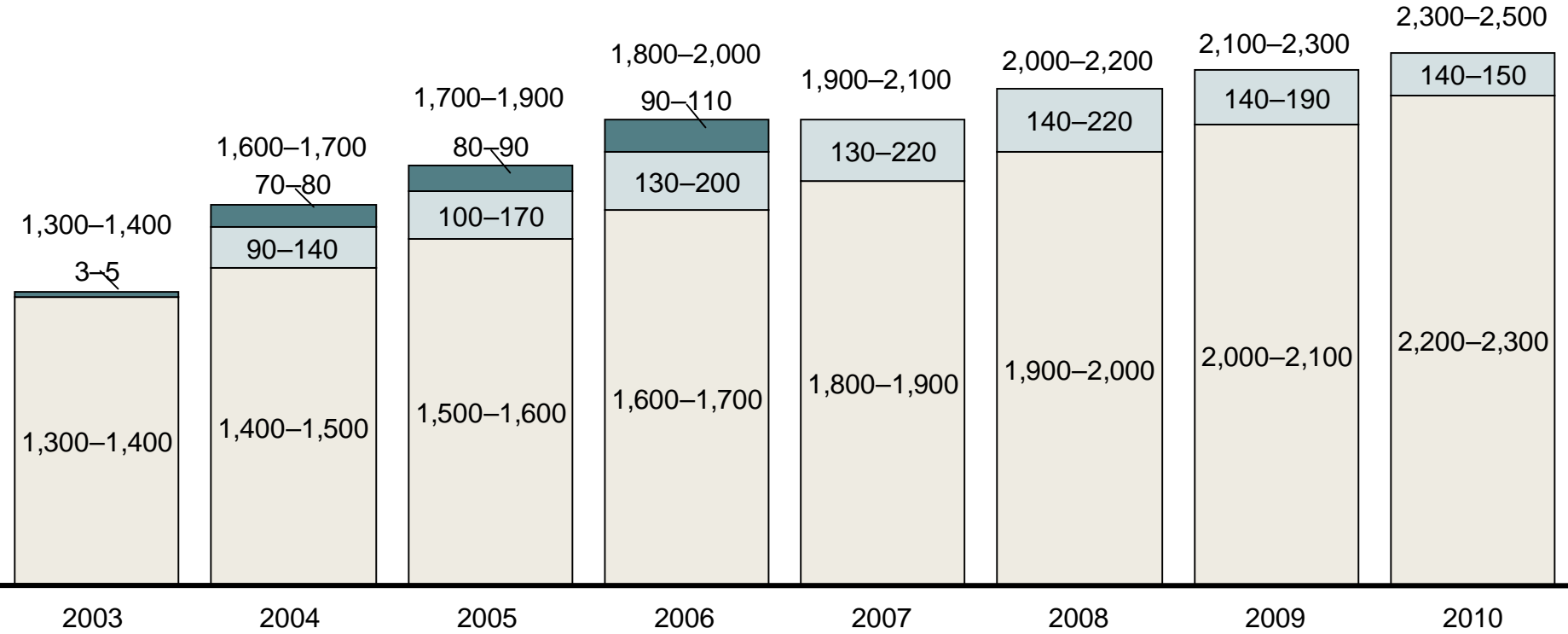
- *Estimated EPI budget 2001 of \$160 million*
- \$250 million EC block funding to health in 8 underperforming states, 2001-5
- \$325 million USAID, family planning and health, 1992-2004 in U.P.
- *Estimated EPI budget 2001 of \$60 million*
- \$130-150 million WB health project emphasizes on EPI 2002-7
- \$40-45 million EC support to EPI 2003-8
- \$15-30 million basic/USAID
- \$5 million UNICEF 2002-7
- \$40 million ISS matched from government with 40 million
- Possibility for country commitment to fund parts of program

PROJECTION OF COST ESTIMATES



Estimated total immunization program cost in VF-eligible countries
USD Millions

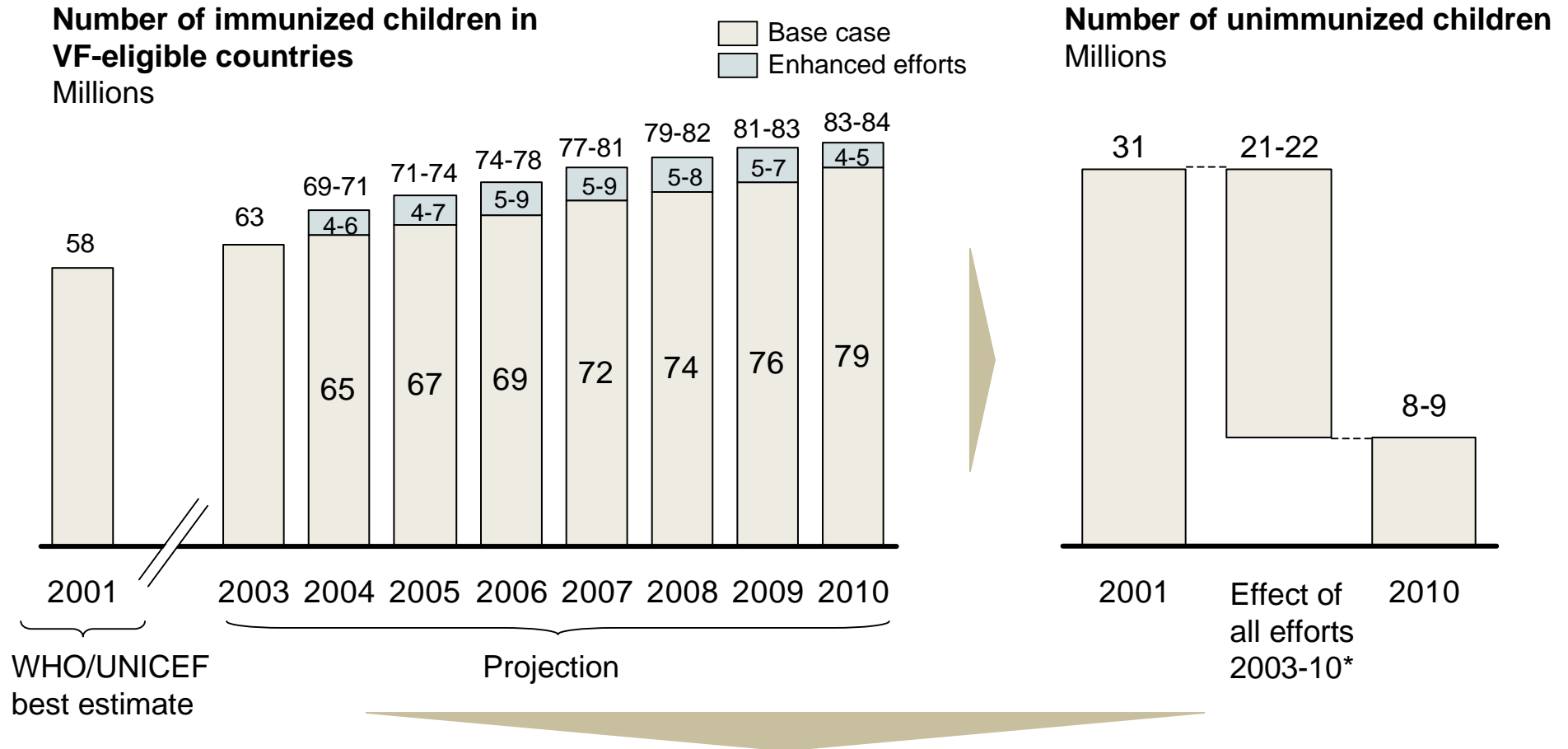
CAGR ~8-9%



- The cumulative cost of enhanced efforts is estimated at USD 240-270 million.
- In addition, USD 100-200 million annually is expected to cover cost for immunization of the additionally reached children

Assumptions: Enhanced effort period over 3 years, scale-up cost related to additional children strived to reach (85-95% of the gap). Additional children immunized dependent on enhanced efforts success rate (60-100%). Cost per child immunized estimated at USD 20-30 depending on antigens included. Expected uptake for Hep B and HiB during the period.

THE NUMBER OF UNIMMUNIZED CHILDREN MAY BE REDUCED BY TWO THIRDS THROUGH COUNTRIES' BASE AND ENHANCED EFFORTS

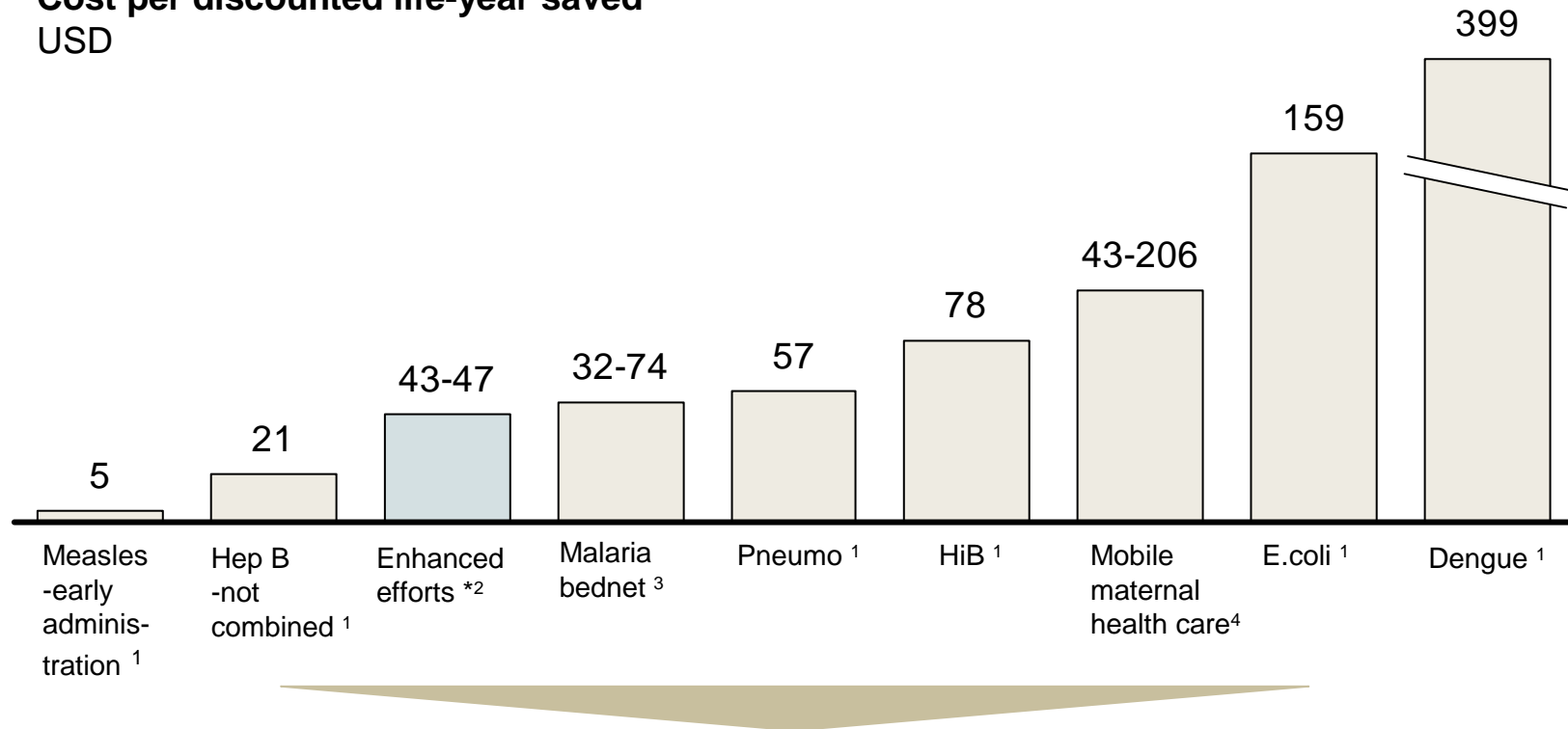


- By maximizing impact of enhanced efforts, an additional 21-22 million children could be immunized
- The cumulative effect of enhanced efforts is estimated at an additional 35-50 million children receiving immunization over base case

* Calculated on basis of static birth cohort

HEALTH ECONOMIC ESTIMATES SUGGEST THE STRATEGY IS COST EFFECTIVE

Cost per discounted life-year saved
USD



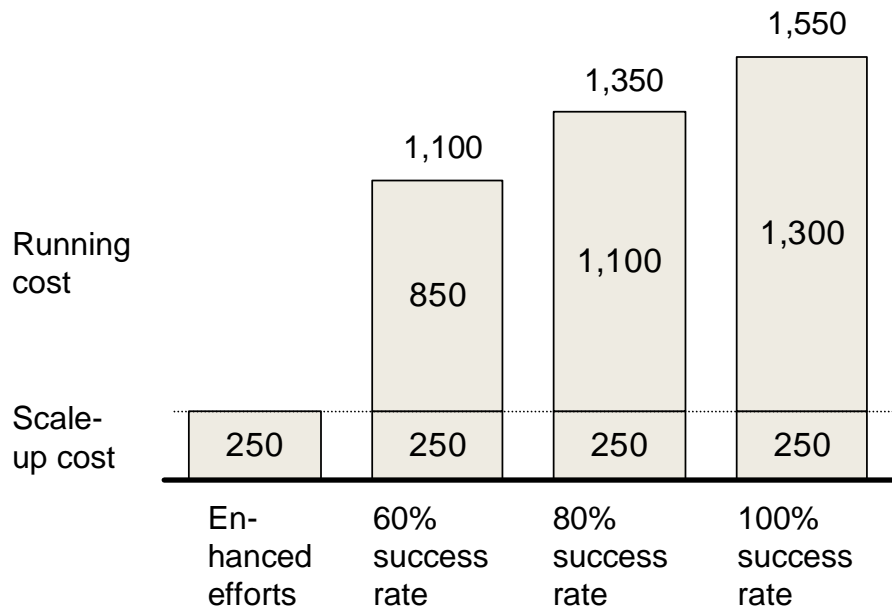
- Cost per discounted discounted life-year saved is estimated at UDS 43-47 based on the mentioned scenarios
- The health economic impact varies depending on strategy success rate, new vaccine take-up, and vaccine cost development

* Calculated based on discounted life years saved in measles, pertussis, hepatitis B and haemophilus influenzae type B

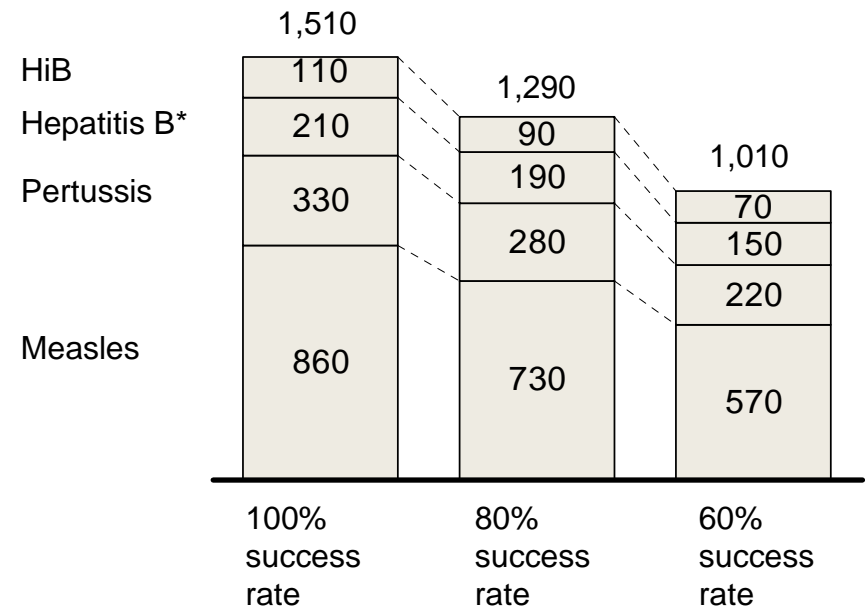
Source: 1) Shephard et al, Setting priorities for CVI, Vaccine (1995); 2) Team analysis with input from WHO Vaccines and Biologicals 3) Aikins et al, The Gambian national impregnated bednet programme, Soc Sci Med (1998) and Binka et al, The cost-effectiveness of permethrin impregnated bednets in preventing child mortality, Health Policy (1997); 4) Fox-Rushby et al, Costs, effects and cost effectiveness analysis of a mobile maternal health care service in West Kiang, Health Policy (1996)

THE ESTIMATED COST PER DEATH AVERTED IS 1000 TO 1,100 USD

Cumulative cost 2003–2010
USD millions



Cumulative impact – VP-deaths averted above base case
2003 to 2010 birth cohorts, thousands

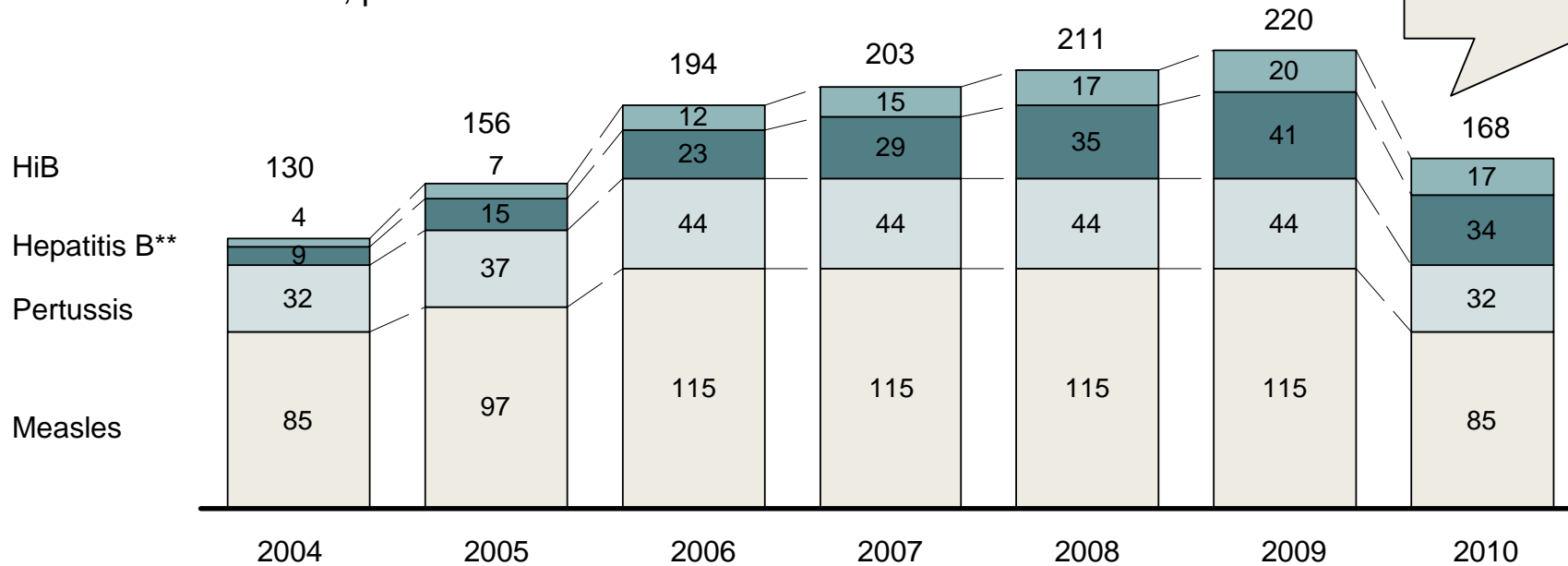


An estimated 1.0 to 1.5 million VP deaths averted at a cost of USD 1,100–1,550 millions indicate a health economic impact of USD 1,020 to 1,100 per death averted

* Major part of Hepatitis B related deaths are not part of child mortality and occur later in life

ESTIMATED ADDITIONAL 100,000-200,000 DEATHS AVERTED IN EACH BIRTH COHORT THROUGH ENHANCED EFFORTS

Estimated deaths averted above base case*
Thousands, per birth cohort



Relative impact decreases as base case is expected to catch up. Total deaths averted continue to increase

- Annual estimates suggest 130,000 – 200,000 vaccine preventable deaths averted in each birth cohort as scale-up effect
- The health impact of scale-up varies depending on (1) timing of starting efforts – assume mid 2003, (2) rate of new vaccine introduction and (3) success rate of strategy

* Assuming 80% success rate of enhanced efforts with subsequent coverage increase/uptake of HepB and HiB vaccination due to current GAVI funding

** Major part of Hepatitis B related deaths are not part of child mortality and occur later in life