POLIO GLOBAL ERADICATION INITIATIVE

Financial Resource Requirements 2011-2012

As of 1 October 2011

World Health Organization

PARTNERS IN THE GLOBAL POLIO ERADICATION INITIATIVE

unicef

Photo front cover: WHO/Thomas Moran - A Nigerian health worker goes from house to house, vaccinating every child under five against polio. In order to make sure that no child is missed, vaccination teams leave markings in chalk on the outside wall of each house. These markings indicate how many children were vaccinated and if any child did not receive vaccine. These 'house markings' assist health workers when they return later to vaccinate any missed children.

Photo back cover: Global Art Initiative - In Dallas, USA, children painted donated crutches to distribute to polio patients throughout the developing world as part of the Global Art Initiative's (GAIN's) Global Crutch Project, which director Dr Fred Sorrells calls "a beautiful sight - colourful works of art providing mobility for daily life, created in love by American children". For information, go to www.globalartinitiative.org

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ACRONYMS AND ABBREVIATIONS

AFP	Acute flaccid paralysis
bOPV	Bivalent oral polio vaccine
CDC	US Centers for Disease Control and Prevention
FRR	Financial Resource Requirements
GPEI	Global Polio Eradication Initiative
mOPV	Monovalent oral polio vaccine
NIDs	National Immunization Days
OPV	Oral polio vaccine
PSC	Programme support costs
SIAs	Supplementary Immunization Activities
SNIDs	Sub-national Immunization Days
tOPV	Trivalent oral polio vaccine
UNICEF	United Nations Children's Fund
VAPP	Vaccine-associated paralytic polio
VDPV	Vaccine-derived poliovirus
WHO	World Health Organization
WPV	Wild poliovirus

1 | EXECUTIVE SUMMARY

The Financial Resource Requirements series (FRR) accompanies the *Global Polio Eradication Initiative (GPEI) Strategic Plan 2010-2012* and is updated quarterly based on the prevailing epidemiological and financial situation. This is the fourth issue of 2011, following and replacing the July 2011 issue.

The four major targets of the *GPEI Strategic Plan 2010-2012* are to stop wild poliovirus transmission:

- by mid-2010 in all countries with new outbreaks in 2009[1];
- by end-2010 in the countries with re-established transmission[2];
- by end-2011 in two of the four endemic countries[3];
- by end-2012 in the remaining two endemic countries.

The Financial Resource Requirements series (FRR) details the funding – required and currently available – to finance the activities needed by the *GPEI Strategic Plan 2010-2012*, to successfully interrupt wild poliovirus transmission globally and prepare for the post-eradication era. Work on the polio 'End Game' (i.e. for 2013 and beyond) is intensifying, including in estimating long-term funding scenarios.

Halfway through the *GPEI Strategic Plan 2010-2012* period, major gains have been achieved in India and Angola and in dealing with new outbreaks. It is clear however that the strategies are yet to be fully applied in all polio-affected areas. While funding remains a major risk, there are also major programmatic risks: area-specific gaps in surveillance quality; national and international spread from north-west Nigeria, southern and eastern Chad and reservoir areas of Pakistan; and persistent outbreaks in western Kenya, eastern Democratic Republic of the Congo, Côte d'Ivoire and insecure border areas of Pakistan and Afghanistan.

The responses to these risks are concrete and include, among others, Lot Quality Assurance sampling after campaigns in 'gap' areas to help drive improvements in independent monitoring; rapid surveillance assessments tied to action plans in all key gap areas; and partnership staffing 'surge' to highest risk countries/areas to improve campaigns and surveillance.

The 2011-2012 budget for core costs, planned supplementary immunization activities and emergency response, inclusive of WHO/UNICEF programme support costs, is US$ 2.23 billion, an increase of US$ 277 million since July 2011. New contributions for the period of US$ 335 million offset this increase and re-define the funding gap for 2011-2012 as US$ 535 million. Of note is additional new funding from the Bill and Melinda Gates Foundation (BMGF), the European Commission for Nigeria, Saudi Arabia and UNICEF Regular Resources.

Table 1 | GPEI 2011 - 2012 Budget, as at October 2011
(all figures in US$ millions)

Budget, as at July	$ 1,950.0
+ Budget Increases	$ 277.0
New Budget	$ 2,230.0
Gap, as at July	$ 590.0
+ Budget Increases	$ 277.0
- New Contributions	$ 335.0
New Gap (Rounded)	$ 535.0

Innovative financing represents an increasing portion of GPEI funding. New funding for the period includes a US$ 41 million extension to the World Bank 'buy-down' for oral polio vaccine for Pakistan, which is co-financed by the BMGF and Rotary International. In August 2011, the Japan International Cooperation Agency (JICA) launched a new financing mechanism in partnership with the BMGF. Under this 'loan conversion' model, Japan provided a 4.9 billion JPY (approximately US$ 65 million) overseas development assistance loan to the government of Pakistan for both vaccine and operations costs. If performance criteria are met, the BMGF will repay the loan credit to JICA on behalf of the Pakistani government, in effect converting the loan to a grant.

1 Validated when at least 6 months have passed without a polio case genetically linked to an importation event from 2009 (i.e. by Q4 2010).
2 Validated when at least 12 months have passed without a polio case genetically linked to the re-established transmission train (i.e. by Q4 2011).
3 Validated when at least 12 months have passed without a polio case genetically linked to an indigenous virus (i.e. by Q4 2012).

The budget increase for the 2011-2012 period is driven by: a US$ 212 million increase for supplemental immunization activities (SIAs) in 2011 and 2012 in the endemic countries, re-established transmission countries, Europe and across west, central and the Horn of Africa; a US$ 28 million increase in the Emergency Response budget for 2012 following a review of 2011 expenditures; and a US$ 27.5 million increase for WHO and UNICEF technical assistance for 2012 for endemic and re-established transmission countries.

Political support and attention to meeting the Strategic Plan milestones remains key. The 38th Islamic Conference of Foreign Ministers in Astana, Kazakhstan in June highlighted polio eradication in the final declaration. Ministers at the 3rd Islamic Conference of Health Ministers at the end of September also in Astana, Kazakhstan emphasized in their final declaration "the urgency of stopping all wild poliovirus transmissions by the end of 2012," called "for sustained high-level political commitment and oversight of vaccination campaigns", and urged "Organization of Islamic Cooperation (OIC) countries, the G8, the G20 Members to consider providing urgent funding required by the GPEI".

Anthony Lake, Executive Director of UNICEF, acknowledged the financial benefits of eradicating polio (an estimated US$ 40-50 billion[4]), and the humanitarian consequences of failing to do so when he said, to UNICEF's Executive Board in June 2011: "We have a chance to eradicate polio once and for all. We are on the verge of the greatest public health victory since the global defeat of smallpox – eradicating polio. But each individual new case is a threat to our global progress – so we have to finish the job."

Table 2 | Summary of external resource requirements by major category activity, 2011-2012
(all figures in US$ millions)

CORE COSTS	2011	2012	2011-2012
Emergency Response (OPV, Ops and Soc Mob)	$ 18.00	$ 74.00	$ 92.00
Surveillance and Running Costs (Incl. Security)	$ 63.51	$ 65.47	$ 128.98
Laboratory	$ 10.22	$ 10.52	$ 20.74
Technical Assistance (WHO and UNICEF)	$ 146.20	$ 177.16	$ 323.36
Certification and Containment	$ 5.00	$ 5.00	$ 10.00
Product Development for OPV Cessation	$ 10.00	$ 10.00	$ 20.00
Post-eradication OPV Stockpile	$ 0.00	$ 12.30	$ 12.30
SUPPLEMENTARY IMMUNIZATION ACTIVITIES	**2011**	**2012**	**2011-2012**
Oral Polio Vaccine	$ 333.93	$ 299.56	$ 633.48
NIDs/SNIDs Operations	$ 396.40	$ 362.81	$ 759.21
Social Mobilization for SIAs	$ 58.99	$ 61.01	$ 120.01
Subtotal	$ 1,042.25	$ 1,077.83	$ 2,120.08
Programme Support Costs (estimated)*	$ 51.03	$ 57.13	$ 108.16
GRAND TOTAL	$ 1,093.28	$ 1,134.96	$ 2,228.24
Contributions	$ 969.00	$ 723.00	$ 1,692.00
Funding Gap	$ 124.28	$ 411.96	$ 536.24
Funding Gap (rounded)	$ 125.00	$ 410.00	$ 535.00

* Assumes no Programme Support Costs applied to national government-funded operations costs; the standard rate for procurement services through UNICEF was applied for governments using their own funds.

4 Tebbens RD, et al. The Economic analysis of the global polio eradication initiative. Vaccine 2010, doi:10.1016/j.vaccine.2010.10.25.

Figure 1 | Annual expenditure 1988-2010, Contributions and Funding Gap 2011-2012
(all figures in US$ millions)

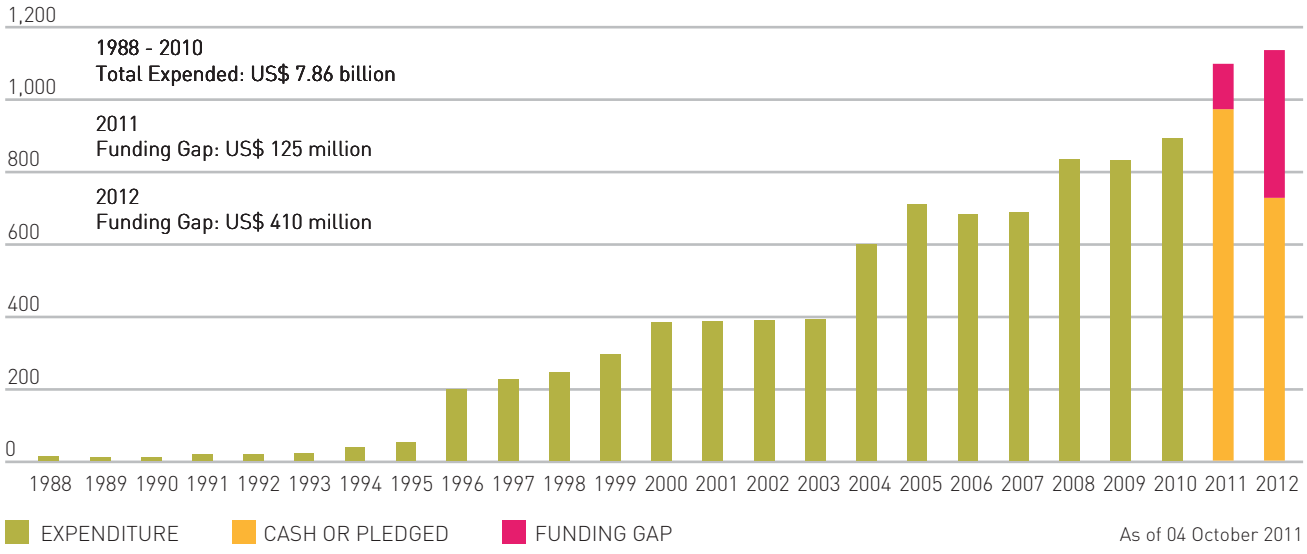
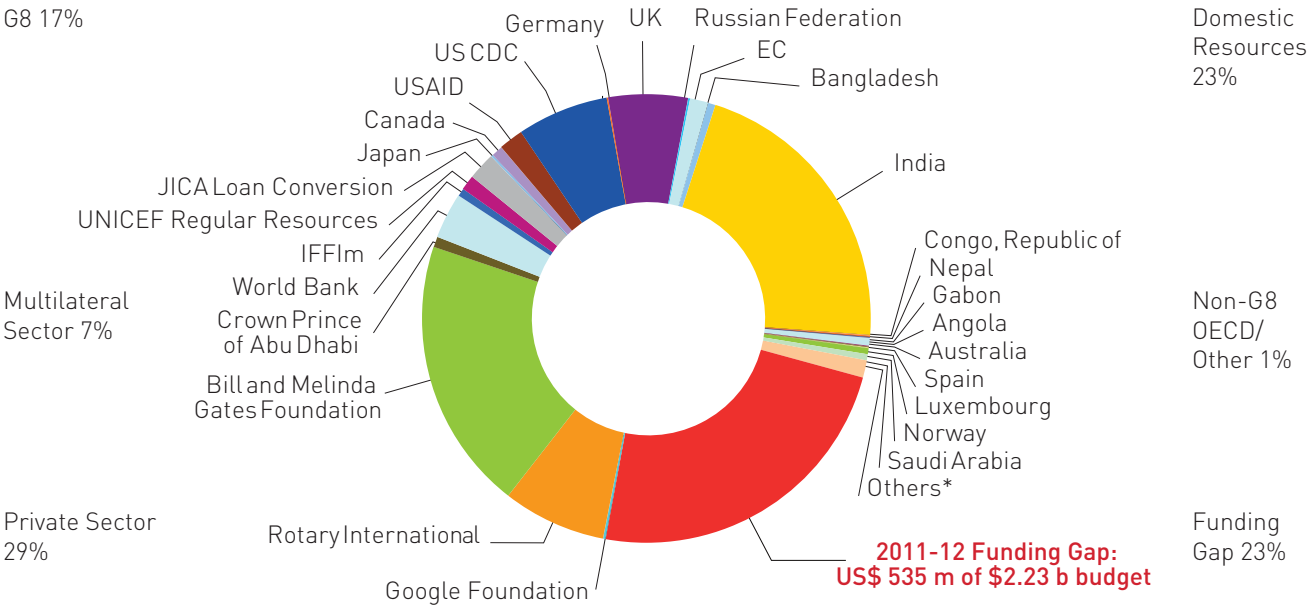


Figure 2 | Financing 2011 to 2012: US$ 1.69 billion contributions



* "Others" includes: the Governments of Cyprus, Finland, Italy, Monaco, Nigeria, Nepal, and Romania; and other Institutions: CERF, Islamic Development Bank, Shinnyo-en. As of 26 September 2011

2 | FINANCIAL RESOURCE REQUIREMENTS 2011-2012

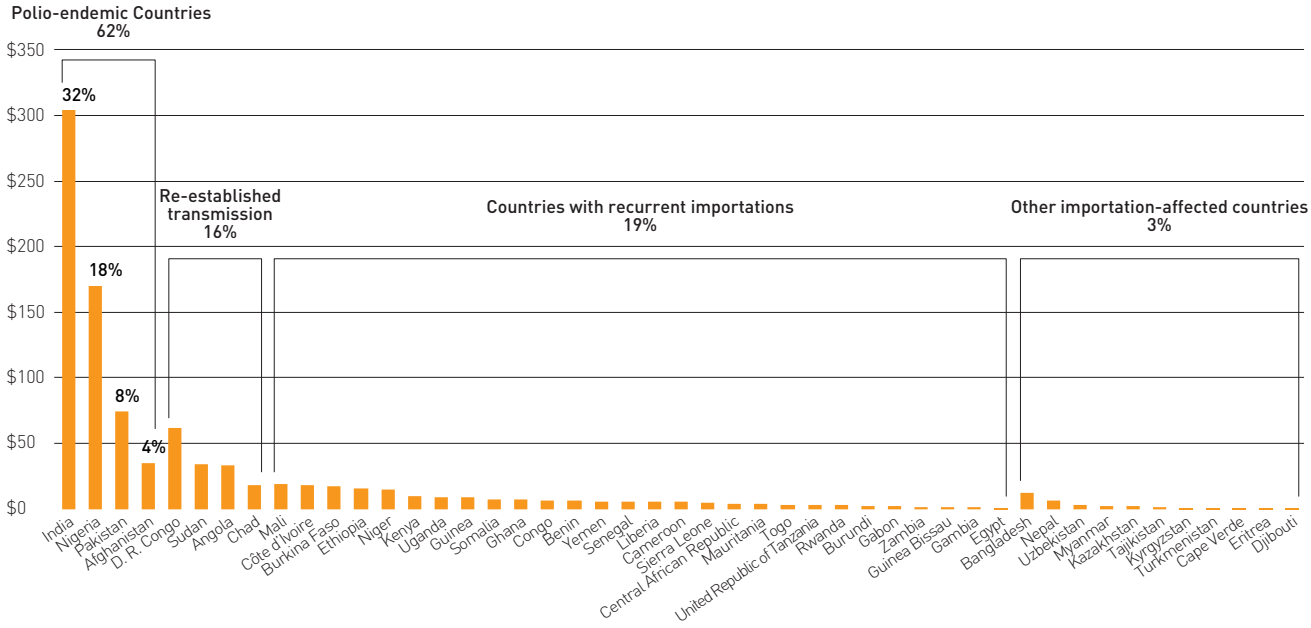
This Financial Resource Requirements (FRR) outlines the budget to implement the core strategies to stop polio and – in keeping with the country-driven *GPEI Strategic Plan 2010-2012* – to institutionalize innovations to improve the quality of intensified SIAs, increase technical assistance to countries with re-established polio transmission, enhance surveillance, systematize the synergies between immunization systems and polio eradication and expand pre-planned vaccination campaigns across the "WPV importation belt" of sub-Saharan Africa. Filling sub-national surveillance gaps, revitalizing surveillance in polio-free Regions and implementing new global surveillance strategies are also costed in the 2011-2012 budget.

The FRR is updated quarterly based on evolving epidemiology; this is the fourth issue of the year[5]. Financial requirements detailed here represent country requirements and are inclusive of agency (i.e. WHO and UNICEF) overhead costs.

Endemic countries account for 62% of the country budgets; countries with re-established transmission for 16%; and, other importation-affected countries for 19%.

Just as high-cost control of polio transmission is not sustainable, low-cost control is not effective, since depending on routine immunization alone would lead to 200,000 to 250,000 cases per year. Neither scenario is optimal when eradication is feasible[6]. Previous cost-effectiveness studies[7] have demonstrated that US$ 10 billion would be needed over a 20-year period to simply maintain polio cases at current levels, in contrast to the US$ 2.23 billion presented here. Financial modelling in 2010[8] estimated the financial benefits of polio eradication at US$ 40-50 billion. Most of those savings (85%) are expected in low-income countries.

Figure 3 | Comparison of Country Budgets for 2011 (as a % of country-level costs, as of 04 October 2011)



5 While the FRR provides overall budget estimates, detailed budgets are available upon request.

6 Barrett S, Economics of eradication vs control of infectious diseases, *Bulletin of the WHO*, Volume 82, Number 9, September 2004, 639-718. http://www.who.int/bulletin/volumes/82/9/en/index.html.

7 Thompson KM, Tebbens RJ. Eradication versus control for poliomyelitis: an economic analysis. *Lancet*. 2007; 369(9570): 1363-71.

8 Tebbens RD, et al. The Economic analysis of the global polio eradication initiative. Vaccine 2010, doi:10.1016/j.vaccine.2010.10.25.

3 | ROLES AND RESPONSIBILITIES OF SPEARHEADING PARTNERS

The spearheading partners of the GPEI are the World Health Organization (WHO), Rotary International, the US Centers for Disease Control and Prevention (CDC) and UNICEF. Rotary International is the leading private-sector donor to polio eradication, advocates with governments and communities and provides field-level support in SIA implementation and social mobilization. CDC deploys a wide range of public health assistance in the form of staff and consultants, provides specialized laboratory and diagnostic expertise and contributes funding.

The budgets that underpin the FRR are prepared by WHO, UNICEF and national governments.

The funds to finance polio eradication activities flow from multiple channels, primarily through these stakeholders. The national governments manage polio eradication activities; UNICEF usually takes the lead in procuring vaccine and conducting social mobilization activities and WHO provides technical assistance and supports surveillance. Both UN agencies support the government in the preparation and implementation of SIAs.

4 | DEFINITION OF THE GPEI ACTIVITIES AND BUDGET ESTIMATES

A robust system of estimating costs drives the development of the global budget estimates from the micro-level up. A schedule for SIAs is drawn up based on the guidance of national Technical Advisory Groups (TAGs), Ministries of Health and the country offices of WHO and UNICEF. In 2010, for example, more than 2.2 billion doses of OPV were administered to more than 400 million children during 309 polio vaccination campaigns[9].

The recommended schedule of SIAs is used by national governments, working with WHO and UNICEF, to develop budget estimates. These are based on plans drawn up for SIAs at the local level and take into consideration local costs for all elements of an activity – trainings, community meetings, posters, announcements, vaccinator payments, vehicles, fuel, supplies, etc.

4.1. COST DRIVERS OF THE GPEI BUDGET

The key cost drivers of the GPEI budget are OPV and SIA operations, followed by surveillance, technical assistance[10] and social mobilization. (See Table 2).

4.1.1. Oral polio vaccine

UNICEF is the agency that procures vaccine for the GPEI, and works to ensure OPV supply security (with multiple suppliers), at a price that is both affordable to governments and donors and reasonably covers the minimum needs of manufacturers.

For activities in areas with active poliovirus transmission, more than 1.5 billion doses of OPV will be required in 2011.

The supply landscape has become more complex since 2005 with the introduction of two types of monovalent OPV (types 1 and 3) and, in 2010, bivalent OPV.

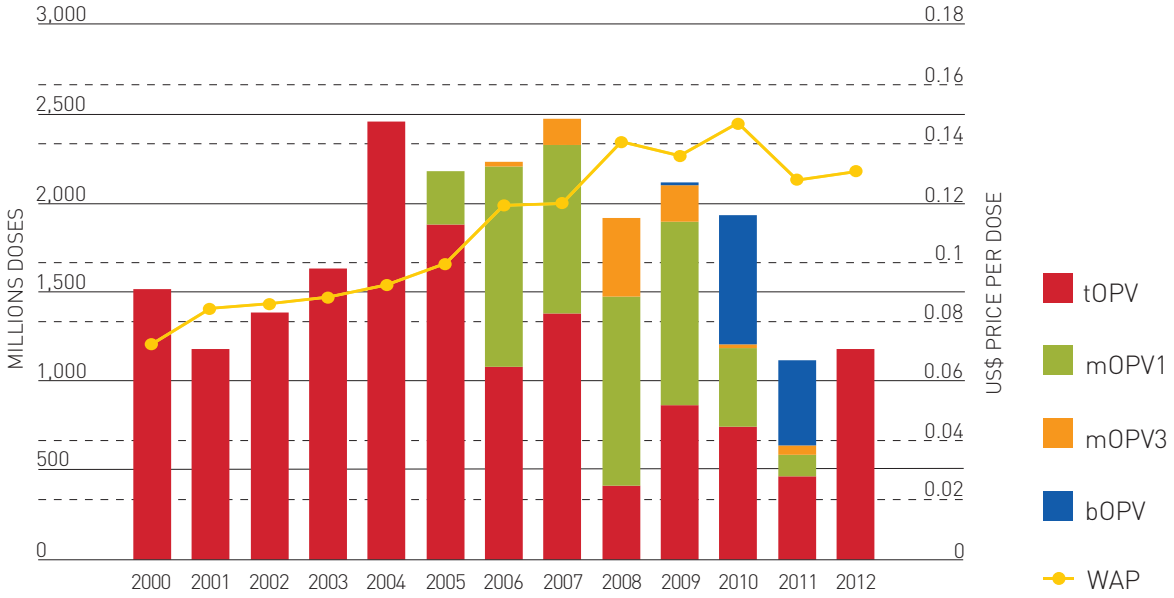
9 OPV was given during 130 National Immunization Days, 140 Sub-national Immunization Days, 28 mop-up campaigns and 11 Child Health Days. Children may have received more than one dose of OPV.

10 For 2010, for example, OPV accounts for 35% of the budget, operations for 40%, technical assistance for 14% and surveillance for 8%, the remainder being dedicated to laboratories, research activities, etc.

This has contributed to a rise in the weighted average price of OPV from US$ 0.08 per dose to approximately US$ 0.14 per dose since 2000. The flexibility of manufacturers, to adjust production based on the OPV formulation required, comes at a cost. Currency fluctuations, the demand for high titres and the finite lifespan of OPV – for which demand will drop after the eradication of polio – also contribute to this price increase.

Despite these factors, the weighted average price of each OPV dose in 2009 (US$ 0.137) and 2010 (US$ 0.141) was lower than that in 2008 (US$ 0.142). In 2010, negotiations with vaccine manufacturers allowed the weighted average price to be reduced by 11%.

Figure 4 | OPV Supply & Weighted Average Price, 2000 to 2012



As of 1 January 2011.

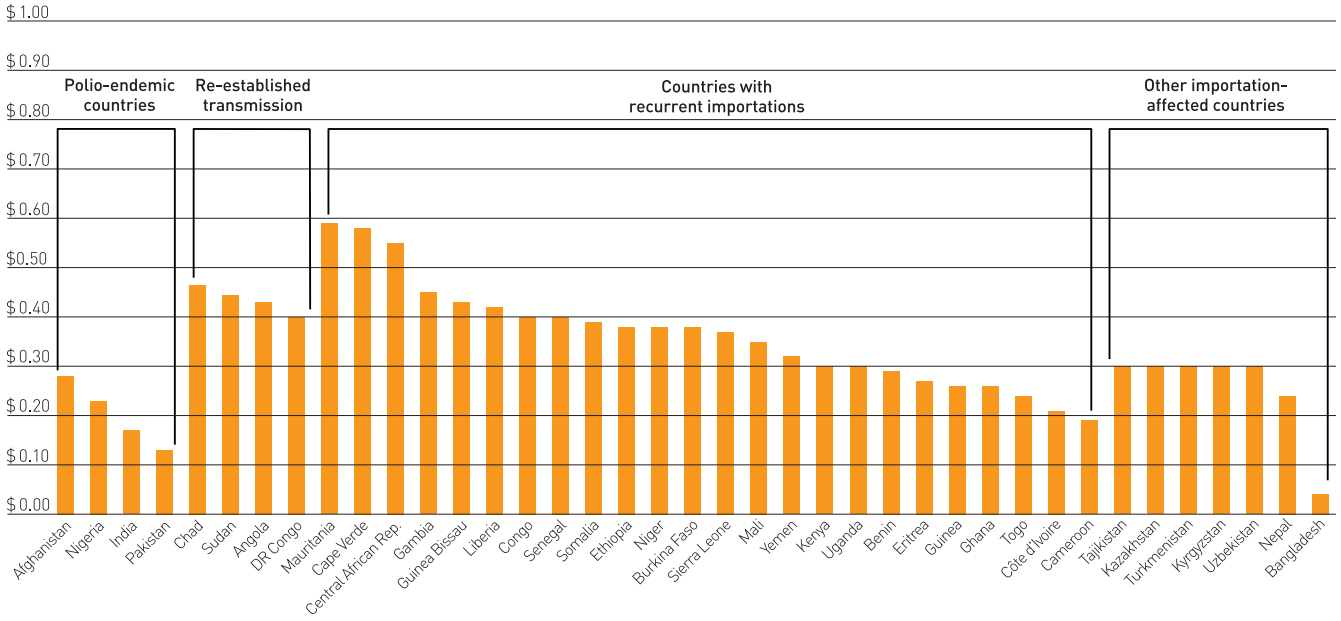
4.1.2. Operations costs

SIAs are vast operations to deliver vaccine to every household: micro-plans have to be drawn up or updated for every dwelling in the area to be covered, whether a single district or an entire country. Vaccine has to be delivered to distribution centres throughout the target area. Vaccinators have to be trained to vaccinate children and mark fingers and houses, to document their work, to report their activities, to communicate with families appropriately, and so on. Vaccinators have to visit every household; supervisors and monitors have to scour every street for unvaccinated children.

Major factors affecting operations costs are the relative strength of the local infrastructure – whether it be roads, telecommunications or any of a host of facilities – and the local health system, the local economy, availability of semi-skilled workers, security conditions and population density. In 2009, 1.4 million paid vaccinators worked in SIAs; vaccinator per diems – to cover basic needs such as food and transport – constitute a large portion of operations costs[11].

11 Based on local rates for semi-skilled labour and government remuneration for similar tasks.

Figure 5 | Operations Costs per Child for SIAs, 2011 (all figures in US$, excluding PSC)



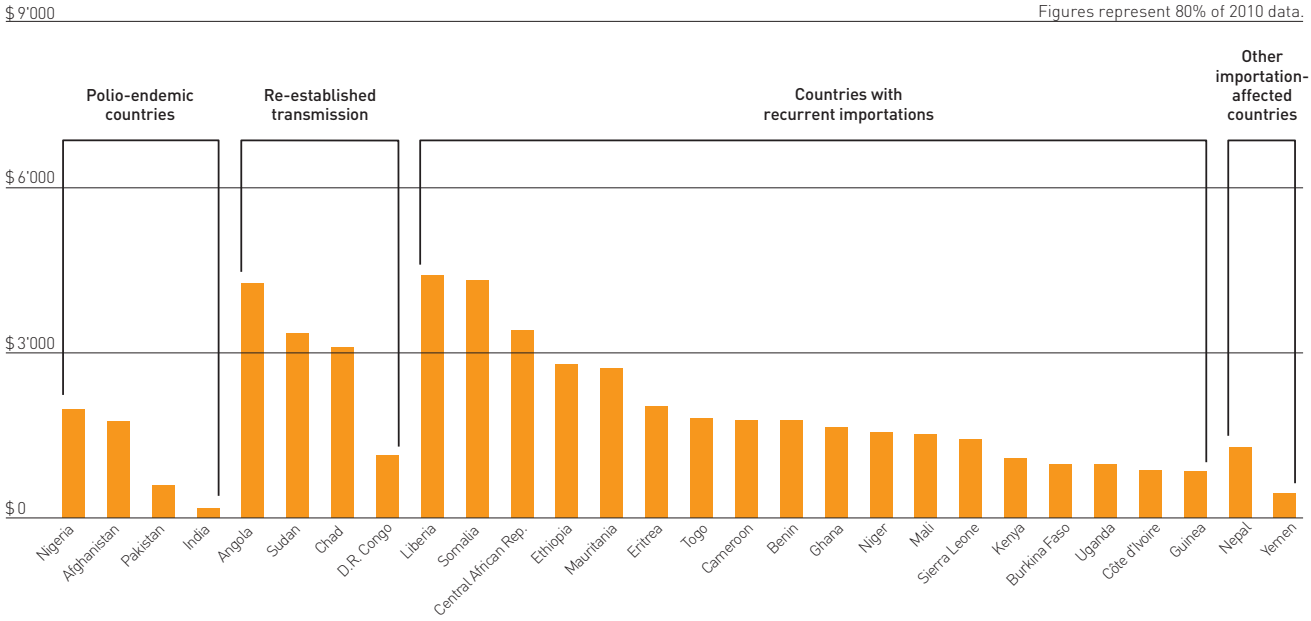
As of 1 January 2011.

4.1.3. Surveillance

Surveillance budgets cover the detection and reporting of acute flaccid paralysis (AFP) cases, through both an extensive informant network of people who first report cases of AFP and active searches in health facilities for such cases. Subsequent case investigation is followed by collection of two stool samples, transportation to the appropriate laboratory, testing and genetic sequencing, the range of activities related to the management of the information and data generated. The Global Polio Laboratory Network comprises 145 facilities, which in 2010 tested over 194,000 stool samples (from nearly 93,000 cases of AFP and other sources).

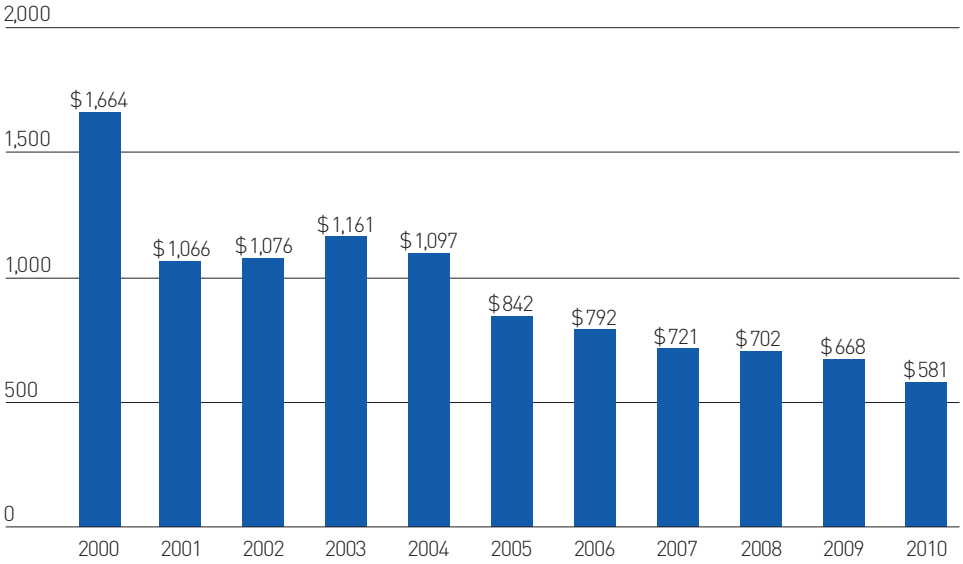
Some of the other activities included under surveillance budget lines are the training of personnel to carry out each of the steps outlined above, as well as regular reviews of the surveillance systems and the purchase and maintenance of equipment, from photocopiers to vehicles. In locations where there are security risks for polio staff, items such as armoured vehicles and appropriate communication equipment may be included in the surveillance budgets. The average cost per AFP case reported dropped from a high of more than US$ 1,500 in the year 2000, when there was heavy investment in establishing the infrastructure for AFP surveillance to approximately US$ 581 in 2010. The range among countries in cost per AFP case investigated is based on factors similar to those which affect differences in SIA costs.

Figure 6 | Surveillance Cost Per AFP Case Analysis, 2010
(all figures in US $)



As of 1 January 2011.

Figure 7 | Average Cost Per AFP Case Reported (AFR, EMR, SEAR)
(all figures in US $)*



* Adjusted for inflation (2010 US$).

As of 1 January 2011.

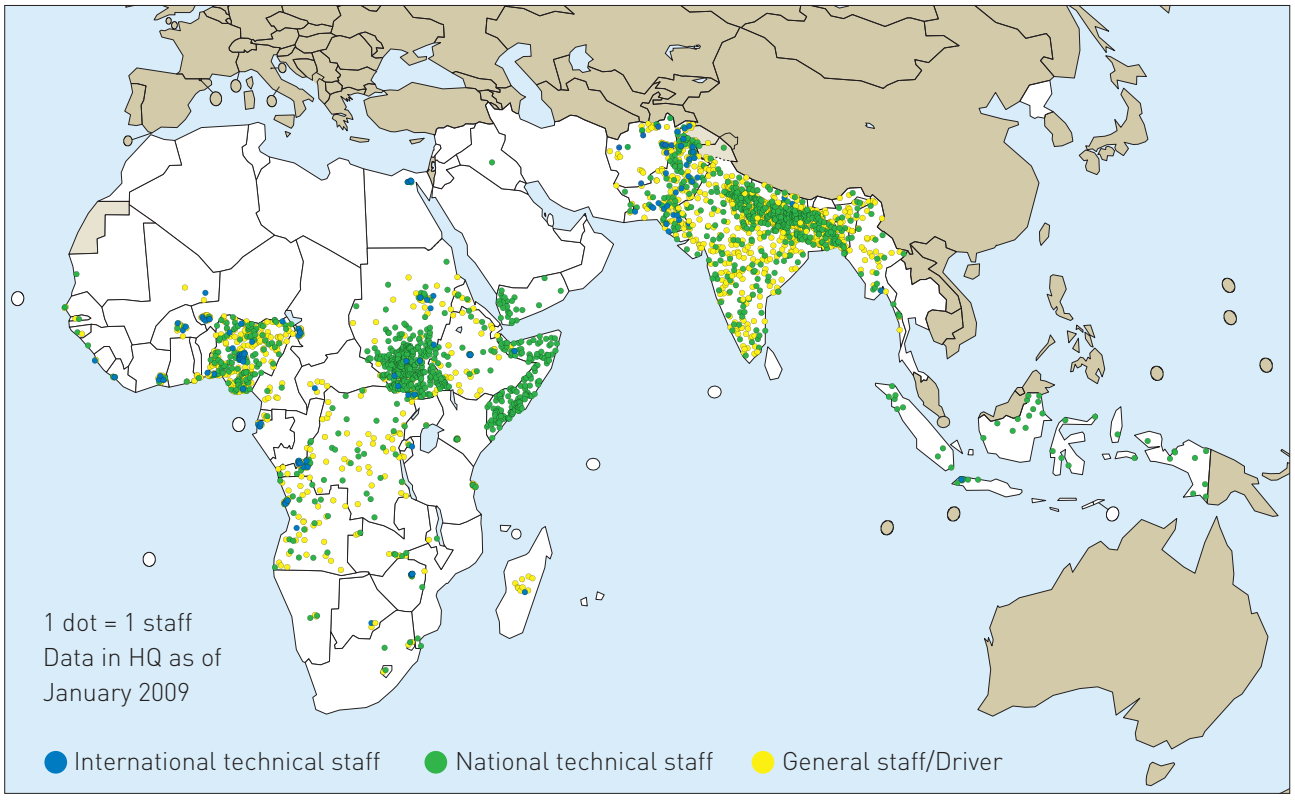
4.1.4. Technical Assistance

GPEI-funded technical assistance (staff and consultants) is deployed to fill capacity gaps when relevant skills are not available within a national health system, to build capacity and to facilitate international information exchange. The priorities for technical assistance are therefore driven by the relative strength of health systems in polio-affected countries as well as how critical the country is to global polio eradication. Matched against the number of children under the age of five years (i.e. the "target population"), technical assistance in countries with re-established transmission is on a par with – or even above – that in endemic countries (Figure 8).

In the 2011 budget, technical assistance is heavily weighted towards the polio-endemic countries (48% of cost), with the next concentration of funds in countries with re-established transmission (16% of cost) and recurrent importations areas (12% of cost)[12].

This assistance provides the human resources necessary for immunization campaign planning, including communication and social mobilization strategy development and implementation, micro-planning, logistics, forecasting and supply management. Funding ensures resources are in place for overall communication capacity development, management skills in strategic planning, finance, human resources and social mobilization in a programme that manages some 20 million workers and volunteers, and communication efforts that help reach over 360 million children each year multiple times with OPV. Finally, technical assistance maintains the surveillance network, which provides reporting on AFP incidence from every district in the world on a weekly basis.

Figure 8 | Geographic distribution of WHO technical assistance for polio eradication



As of 1 January 2011.

12 The remaining 24% is allocated to polio-free regions, Regional Offices and Headquarters.

Table 3 | WHO Technical Assistance by category of polio-infected country, 2011*

CATEGORY	Total Cost (all figures in US$ millions)	% of Total Cost
Endemic	$ 50.8	48%
Re-Established Transmission	$ 17.2	16%
Recurrent Importations	$ 12.7	12%
Others (in endemic regions)	$ 3.1	3%
Polio-Free / Regional Offices - Surge Capacity	$ 11.8	11%
HQ	$ 10.2	10%
GRAND TOTAL	$ 105.8	100%

*As of 05 September 2011

Technical assistance on this scale is unique in public health and essential to finishing polio eradication. Polio eradication staff now constitute the single largest resource of technical assistance for immunization in low-income countries. For example, in 2009, of the 998 immunization staff in the WHO African Region, 940 (94%) were funded by the polio programme; at national or sub-national level, this proportion sometimes rose to 100%. In each component of a strong immunization system – logistics, service delivery, monitoring and supervision, surveillance and community participation – polio eradication staff have a wealth of experience.

Working to contribute to the objectives of the Global Immunization Vision and Strategy[13], GPEI staff will designate a minimum of 25% of their time to specific 'high impact' tasks and activities to strengthen immunization systems. Capacity-building workshops on the intersections between immunization systems and polio eradication are also part of the *GPEI Strategic Plan 2010-2012*. Priority will be given to areas at highest risk of outbreaks following importations, especially those in sub-Saharan Africa.

4.1.5. Social Mobilization and Communication

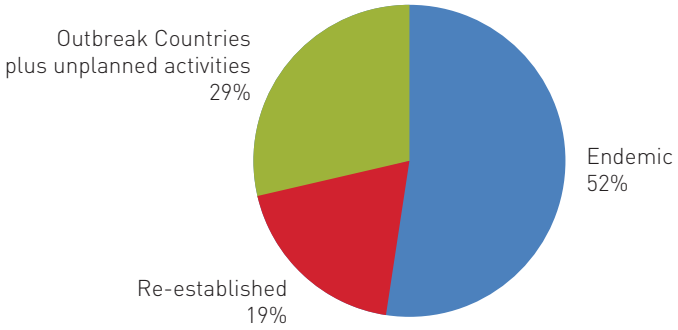
Communication and social mobilization funds are used to ensure high levels of community demand for oral polio vaccine. A minimum communication package builds community awareness of campaigns in all countries. In addition, funds are used to communicate with groups where children are missed because of misconceptions regarding the safety and efficacy of the vaccine, or where, marginalized by geography, ethnicity, language, literacy or other social reasons, communities may distrust the providers of the vaccine. Social and epidemiological data guides social mobilization planning and implementation to target efforts on high-risk areas and reduce the numbers of missed children.

Reaching missed children and their families involves building trust, working closely with networks of traditional, political and religious leaders and other local influencers. In high-risk areas, dedicated social mobilizers work to increase local ownership of the programme, moving away from 'top-down' approaches, in favour of building a movement of grassroots community demand for oral polio vaccine and other basic health services.

In the 2011-2012 budget, 52% is allocated for the endemic and 19% for re-established countries. This covers the costs of intensified social mobilization in high-risk areas and maintaining dedicated networks of social mobilizers where essential: for example more than 5000 mobilizers in northern India, and a new network of 400 local level mobilizers in north-western Pakistan. These approaches significantly increase the cost per child reached in these high-risk areas, but are vital to ensure high campaign coverage; they have played a key role in the recent progress in India. In 2012 the social mobilization requirements increase from US$ 59.2 million to US$ 71.9 million, to reflect ongoing scale-up in priority countries such as Chad, the Democratic Republic of the Congo and Nigeria. The budget also includes increased contingency funding to respond to an anticipated intensified schedule of campaigns in high risk countries, particularly in West Africa and the Horn of Africa.

13 *Global Immunization Vision and Strategy 2006-2015*. World Health Organization/UNICEF, 2005.

Figure 9 | 2011-2012 Social Mobilization Requirements, US$ 131.1 million*



* As of end-September 2011. Includes requirements for unplanned activities.

5 | POLIO RESEARCH

In the *GPEI Strategic Plan 2010-2012*, the role of research continues to expand with emphasis on the acceleration of both eradication activities and preparations for post-certification.

The research agenda to accelerate eradication helps identify ways to reach more children and to enhance both humoral and mucosal immunity in targeted populations. The *Independent Evaluation of Major Barriers to Interrupting Poliovirus Transmission* endorsed the programmatic decision to intensify operational research. Scientific and operational research are guided by the Polio Research Committee, composed of experts in epidemiology, public health communications, virology and immunology. The use of Geographic Information Systems (GIS) to improve microplan development and implementation, as well as to identify areas for revisits and extensive monitoring, will be scaled up across northern Nigeria and other areas (e.g., Pakistan) in 2011.

Going forward, research is expected to play a critical part in evaluating implementation of the new *Strategic Plan 2010-2012*, and further sensitize tactical approaches. Research will further evaluate the programmatic benefits of bivalent OPV in improving population immunity, assess programme performance, better track the evolving epidemiology of virus transmission, assess and improve the quality of SIAs and related monitoring efforts, and evaluate new tools and strategies to predict and stop outbreaks and limit new international spread of virus.

For post-certification, research is assessing post-eradication risks and facilitating the development of new products and approaches to mitigate those risks (i.e. affordable inactivated poliovirus vaccine – IPV – options, antivirals, new diagnostics).

To develop affordable IPV options, a number of strategies are being pursued, including a schedule reduction (the administration of fewer doses in a routine schedule); a reduction of the antigen dose (i.e., fractional-dose inactivated poliovirus vaccine); the use of adjuvants, resulting in a decreased need for antigen; optimization of production processes (i.e., increasing cell densities, creating new cell lines, or using alternative inactivation agents); and the development of an IPV produced from Sabin strains or further attenuated strains that would be appropriate for production in developing countries.

The goal of these strategies is to achieve a "break-even" IPV price of approximately US$ 0.50 per dose against OPV so that any country can adopt IPV in their routine immunization schedule after eradication.

6 | REVIEW OF THE GPEI BUDGETS AND ALLOCATION OF FUNDS

The GPEI budget development is paired with a regular, interactive process of reviewing and reprioritizing activities in light of evolving epidemiology and available resources.

The 2011 budget reflects cost-efficiencies achieved through re-prioritizing surveillance activities, delaying activities in lower-risk countries and areas, reduction in cost of vaccine production, and implementation of consistent budget processes across country and regional teams of WHO and UNICEF.

The GPEI reviews the epidemiology of poliovirus globally and the SIA priorities on an ongoing basis, guided by the advice of national and regional Technical Advisory Groups as well as the Strategic Advisory Group of Experts on Immunization (SAGE). The newly-formed Independent Monitoring Board (IMB) started in December 2010 to evaluate – on a quarterly basis – the progress towards each of the major milestones of the *GPEI Strategic Plan 2010-2012*, determine the impact of any 'mid-course corrections' that are deemed necessary, and advise on additional measures appropriate.

An in-depth weekly epidemiological review is complemented by weekly and bi-weekly teleconference check-ins between WHO and UNICEF headquarters and regional offices which provide opportunities to adjust allocations. The FRR is therefore updated regularly to adapt to the changing epidemiology and priorities.

After a budget review process at the regional office and headquarters levels, funds for country SIAs are released from WHO and UNICEF headquarters to regions and then countries. For staff and surveillance, funds are disbursed on a quarterly or semi-annual basis, depending on the GPEI cash flow. For most countries, funds for OPV are released by UNICEF six to eight weeks before SIAs.

7 | THE 2013-2015 PERIOD

Cost estimates for activities in the 2013-2015 period are based on the assumption that the primary milestones of the *GPEI Strategic Plan 2010-2012* will be achieved, high quality surveillance will need to be sustained for the purposes of certification of WPV eradication (and cVDPV detection/response) and areas at highest risk of cVDPV emergency and spread will require at least two SIAs per year.

In terms of activities during the 2013-2015 period, these assumptions translate into maintaining the polio technical assistance and surveillance, conducting two SIAs per year in highest risk countries/areas for cVDPVs and maintaining sufficient outbreak response funds to rapidly address cVDPVs.

The total estimated cost of 2013-2015 activities is estimated at US$ 1.98 billion (US$ 1.59 billion excluding activities in India, which is expected to continue to self-finance).

Table 4 | Summary of external resource requirements by major category of activity, 2013-2015
(all figures in US$ millions)

CORE COSTS	2013	2014	2015	2013-2015
Emergency Response (OPV and Operations)	$ 35.0	$ 25.0	$ 25.0	$ 85.0
Surveillance and Running Costs	$ 68.3	$ 70.4	$ 72.5	$ 211.3
Laboratory	$ 12.0	$ 12.4	$ 12.8	$ 37.3
Technical Assistance (WHO and UNICEF)	$ 143.7	$ 148.0	$ 152.5	$ 444.4
Social Mobilization Annual Costs	$ 6.0	$ 5.6	$ 5.4	$ 17.1
Certification and Containment	$ 5.0	$ 5.0	$ 5.0	$ 15.0
Product Development for OPV Cessation	$ 10.0	$ 10.0	$ 10.0	$ 30.0
Post-eradication OPV Stockpile	-	$ 24.6	-	$ 24.6
SUPPLEMENTARY IMMUNIZATION ACTIVITIES				
Oral Polio Vaccine	$ 184.0	$ 176.3	$ 103.7	$ 464.1
NIDs/SNIDs Operations	$ 180.1	$ 172.5	$ 116.8	$ 469.5
Social Mobilization for SIAs	$ 37.1	$ 32.7	$ 33.1	$ 103.0
Subtotal	$ 681.7	$ 682.8	$ 512.1	$ 1,876.6
Programme Support Costs (estimated)	$ 36.2	$ 35.8	$ 31.7	$ 103.8
GRAND TOTAL	$ 717.9	$ 718.6	$ 543.9	$ 1,980.5
of which, India (government funded) budget:	$ 165.7	$ 170.2	$ 51.9	$ 387.9
GRAND TOTAL excluding India	$ 552.2	$ 548.3	$ 491.9	$ 1,592.5

7.1. POST-CERTIFICATION OF ERADICATION

After interruption of wild poliovirus transmission and certification of that achievement, the budget of the GPEI will be driven primarily by the costs of maintaining AFP surveillance and laboratory capacity and outbreak response capacity for circulating vaccine-derived poliovirus. This capacity will be required until and during the cessation of routine OPV use globally and the subsequent verification of the elimination of vaccine-associated paralytic polio (VAPP) and vaccine-derived polioviruses (VDPV).

Consequently, annual financial resource requirements of the GPEI in the post-eradication period will be significantly lower than the (current) costs associated with the intensified polio eradication effort. The annual costs of these activities during the VAPP/VDPV Elimination Phase are estimated to be US$ 200-250 million. The major uncertainty pertaining to GPEI costs during this period is the extent to which low- and low/middle-income countries will use IPV, how they will use it (e.g. fractional doses, reduced dose schedules) and how IPV will be produced at that time.

The costs of the GPEI will stop once VAPP/VDPV elimination is verified. All long-term functions will by that point have been incorporated into existing mechanisms for managing the residual risks associated with eradicated and/or dangerous pathogens (e.g. smallpox) and routine immunization programmes.

Table 5 | 2013-2015 SIA Calendar

(all activities are expressed in percentages)

Countries with poliovirus within the last 6 months	Countries with poliovirus between 6 and 12 months
Countries with no poliovirus for more than 12 months	**Categorization includes cVDPVs**

	2013												2014											
Region/Country	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Endemic countries																								
Afghanistan		100	100	30	30					30	30			100	100							30	30	
Pakistan		100	100	30	30					30	30			100	100							30	30	
Nigeria		100	100							60	60			100	100							60	60	
India		100	100							40	40			100	100							40	40	
Countries with re-established transmission																								
D.R. Congo					100	100											100	100						
Chad		100	100											100	100									
Angola					100	100											100	100						
Sudan		100	100											100	100									
South Sudan		100	100											100	100									
Countries with recurrent importations																								
West Africa																								
Mali		100	100																					
Niger		100	100											100	100									
Côte d'Ivoire		100	100																					
Guinea		100	100																					
Sierra Leone		100	100																					
Burkina Faso		100	100											100	100									
Benin		100	100											100	100									
Liberia		100	100																					
Horn of Africa																								
Ethiopia		50	50											50	50									
Somalia		100	100											100	100									
Other importation-affected countries																								
Southeast Asia																								
Nepal		100	100											100	100									
Bangladesh		100	100											100	100									

	2015											
Region/Country	J	F	M	A	M	J	J	A	S	O	N	D
Endemic countries												
Afghanistan		100	100									
Pakistan		100	100									
Nigeria		100	100									
India		40	40									
Countries with re-established transmission												
D.R. Congo					100	100						
Chad		100	100									
Angola					100	100						
Sudan		100	100									
South Sudan		100	100									
Countries with recurrent importations												
West Africa												
Mali												
Liberia												
Niger		100	100									
Côte d'Ivoire												
Guinea												
Sierra Leone												
Burkina Faso		100	100									
Benin		100	100									
Horn of Africa												
Ethiopia		50	50									
Somalia		100	100									
Other importation-affected countries												
Southeast Asia												
Nepal		100	100									
Bangladesh												

8 | DONORS

Since the 1988 World Health Assembly (WHA) resolution to eradicate polio, funding commitments have totalled US$ 9 billion. In addition to contributions by national governments to their own polio eradication efforts, 51 public and private donors have each given more than US$ 1 million, with 20 of these having given US$ 25 million or more.

Donors to the GPEI include a wide range of donor governments, private foundations (e.g. Rotary International, BMGF, UN Foundation), multilateral organizations, development banks, NGOs and corporate partners. Several of these partners have contributed in excess of US$ 250 million to the global eradication effort, including the United States of America, Rotary International, India, the United Kingdom, the World Bank, BMGF, Germany, Japan and Canada.

International contributions to national polio eradication efforts have been complemented by domestic resources. As of 1 October 2011, domestic funding towards the 2011-2012 budget continues to surpass G8 contributions. India, who has largely self-financed for the past several years, provided US$ 212 million in 2010 and is projected to contribute US$ 249 million for 2011 and US$ 240 million for 2012. Nigeria and Pakistan have also provided substantial domestic resources towards eradicating polio. Other contributions from polio-affected countries – including both financial and non-monetary expenditures, and in-kind contributions such as the time spent by volunteers, health workers and others in the planning and implementation of SIAs – are estimated to have a dollar value approximately equal to that of international financial contributions.[14]

Table 6 | Donor profile for 1985-2012 (contribution in US$ millions)

Contribution	Public Sector Partners	Development Banks	Private Sector Partners
› 1,000	United States of America		Rotary International, Bill & Melinda Gates Foundation
500 - 1,000	United Kingdom	World Bank	
250 - 499	Japan, Canada, Germany		
100 - 249	European Commission, Netherlands, GAVI/IFFIm, WHO Regular Budget, UNICEF Regular Resources		
50 - 99	Norway		
25 - 49	Denmark, France, Italy, Sweden, Russian Federation		United Nations Foundation
5 - 24	Australia, Ireland, Luxembourg, Saudi Arabia, Spain		Crown Prince of Abu Dhabi, Sanofi Pasteur, IFPMA, UNICEF National Committees, American Red Cross, Oil for Food Program
1 - 4	Austria, Belgium, Finland, Kuwait, Malaysia, New Zealand, Portugal, Switzerland, United Arab Emirates	Inter-American Development Bank, African Development Bank	Advantage Trust (HK), Central Emergency Response Fund (CERF), De Beers, Google Foundation, International Federation of Red Cross and Red Crescent Societies, Pew Charitable Trust, Wyeth, Shinnyo-en, OPEC

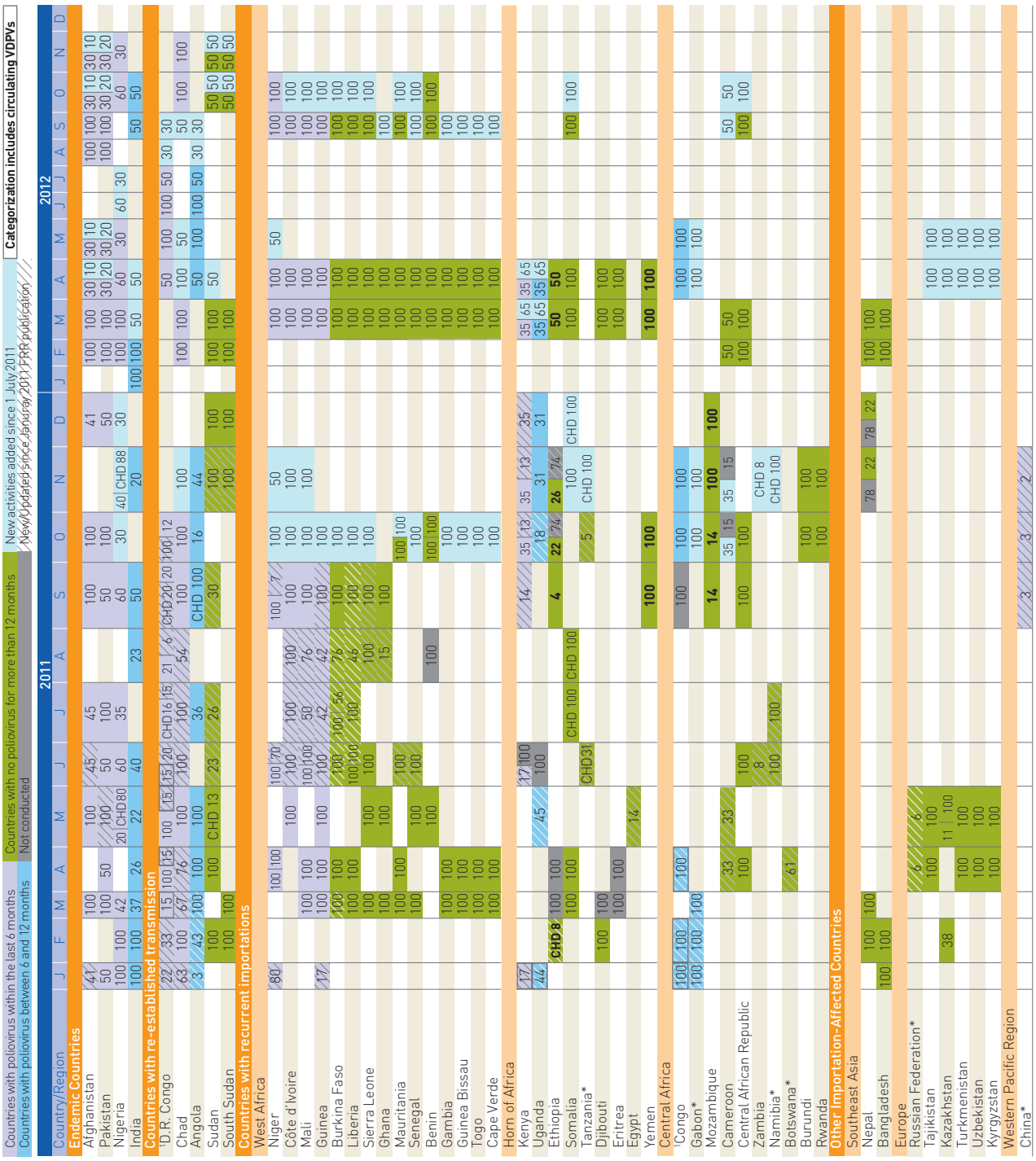
As of September 2011.

14 Aylward R, et al, Politics and practicalities of polio eradication, *Global Public Goods for Health. Health Economic and Public Health Perspectives*, editors Smith R, Beaglehole R, Woodward D, Drager N. Oxford University Press, 2003.

9 | ANNEXES

Annex A | Supplementary immunization activities required for polio eradication, 2011-2012 as of September 2011

(all activities are expressed in percentages)



As of September 2011.

*self-financing and not included in the FRR costing.

1 Includes, in D.R.Congo, 4 rounds in Kinshasa targeting all age groups, and in Congo, 3 nation-wide rounds targeting all age groups.

Annex B | Details of external funding requirements in polio-endemic and highest-risk countries, 2011-2012
(all figures in US$ millions)

	2011					
Country	AFP Surveillance	Social Moblization	Technical Assistance	OPV	Op Costs	Total Costs 2011
Endemic Countries						
Afghanistan	$ 2.27	$ 2.84	$ 5.75	$ 7.97	$ 15.49	$ 34.32
India	$ 7.98	$ 19.42	$ 17.24	$ 125.46	$ 133.77	$ 303.87
Pakistan	$ 2.75	$ 7.71	$ 8.17	$ 36.46	$ 18.55	$ 73.64
Nigeria	$ 10.50	$ 3.38	$ 31.13	$ 60.86	$ 63.59	$ 169.46
Countries with re-established transmission						
Chad	$ 0.85	$ 2.75	$ 3.22	$ 3.83	$ 6.74	$ 17.38
Angola	$ 1.80	$ 2.24	$ 5.17	$ 6.59	$ 16.99	$ 32.79
D.R. Congo	$ 2.13	$ 3.10	$ 7.14	$ 16.83	$ 32.46	$ 61.66
Sudan	$ 0.50	$ 0.61	$ 1.48	$ 5.12	$ 9.88	$ 17.58
South Sudan	$ 1.20	$ 1.31	$ 4.86	$ 2.18	$ 6.78	$ 16.32
Countries with recurrent importations						
West Africa						
Niger	$ 0.55	$ 0.89	$ 1.31	$ 3.95	$ 7.90	$ 14.61
Benin	$ 0.17	$ 0.63	$ 0.82	$ 1.79	$ 2.10	$ 5.50
Burkina Faso	$ 0.26	$ 1.13	$ 0.26	$ 5.22	$ 9.78	$ 16.65
Côte d'Ivoire	$ 0.27	$ 1.30	$ 1.11	$ 6.54	$ 8.28	$ 17.49
Sierra Leone	$ 0.21	$ 0.34	$ 0.45	$ 1.06	$ 2.45	$ 4.51
Guinea	$ 0.17	$ 0.44	$ 0.35	$ 2.60	$ 4.58	$ 8.14
Liberia	$ 0.21	$ 0.53	$ 0.49	$ 0.89	$ 2.87	$ 4.99
Mali	$ 0.24	$ 1.62	$ 0.25	$ 5.83	$ 10.86	$ 18.80
Mauritania	$ 0.17	$ 0.47	$ 0.32	$ 0.53	$ 1.75	$ 3.24
Senegal	$ 0.30	$ 0.61	$ 0.12	$ 1.63	$ 2.44	$ 5.10
Guinea Bissau	$ 0.06	$ 0.14	$ 0.12	$ 0.17	$ 0.35	$ 0.84
Gambia	$ 0.05	$ 0.09	$ 0.05	$ 0.21	$ 0.40	$ 0.79
Cape Verde	$ 0.04	$ 0.07	$ 0.10	$ 0.03	$ 0.15	$ 0.40
Togo	$ 0.13	$ 0.25	$ 0.19	$ 0.78	$ 1.03	$ 2.38
Ghana	$ 0.34	$ 0.29	$ 0.10	$ 2.36	$ 3.76	$ 6.85
Horn of Africa						
Ethiopia	$ 2.89	$ 0.53	$ 2.75	$ 5.42	$ 3.51	$ 15.09
Somalia	$ 0.60	$ 0.22	$ 2.01	$ 1.94	$ 2.14	$ 6.91
Kenya	$ 0.42	$ 0.42	$ 0.83	$ 1.60	$ 5.64	$ 8.91
Uganda	$ 0.37	$ 0.11	$ 0.58	$ 1.82	$ 5.29	$ 8.17
Eritrea	$ 0.13	$ 0.06	$ 0.11	$ 0.02	-	$ 0.32
Yemen	$ 0.18	$ 0.32	$ 0.23	$ 1.61	$ 2.80	$ 5.13
Djibouti	$ 0.05	$ 0.00	$ 0.00	$ 0.00	$ 0.15	$ 0.20
Egypt	$ 0.35	-	$ 0.07	-	$ 0.00	$ 0.42
Central Africa						
Cameroon	$ 0.38	$ 0.90	$ 0.51	$ 1.63	$ 1.50	$ 4.92
Central African Republic	$ 0.44	$ 0.92	$ 0.61	$ 0.48	$ 1.00	$ 3.45
Gabon	$ 0.09	$ 0.00	$ 0.32	$ 0.84	$ 0.19	$ 1.44
Burundi	$ 0.09	$ 0.21	$ 0.04	$ 0.53	$ 0.78	$ 1.65
Rwanda	$ 0.10	$ 0.20	$ 0.31	$ 0.53	$ 0.97	$ 2.10
Congo	$ 0.13	$ 0.16	$ 0.60	$ 3.97	$ 1.09	$ 5.94
U. R. Tanzania	$ 0.38	-	$ 0.33	$ 1.54	-	$ 2.25
Zambia	$ 0.34	-	$ 0.57	$ 0.03	$ 0.15	$ 1.09
Other Importation-Affected Countries						
Southeast Asia						
Nepal	$ 0.36	$ 0.27	$ 0.85	$ 1.62	$ 2.42	$ 5.52
Myanmar	$ 0.34	-	$ 0.26	$ 1.17	-	$ 1.77
Bangladesh	$ 1.00	-	$ 1.27	$ 7.73	$ 2.06	$ 12.06
Europe						
Tajikistan	$ 0.12	-	-	$ 0.39	$ 0.66	$ 1.16
Uzbekistan	$ 0.06	$ 0.20	-	$ 1.07	$ 1.38	$ 2.71
Kazakhstan	$ 0.07	$ 0.05	-	$ 0.36	$ 1.00	$ 1.49
Turkmenistan	$ 0.08	-	-	$ 0.22	$ 0.33	$ 0.62
Kyrgyzstan	$ 0.04	-	-	$ 0.54	$ 0.40	$ 0.98

Annex B (continued)

	2012					
Country	AFP Surveillance	Social Moblization	Technical Assistance	OPV	Op Costs	Total Costs 2012
Endemic Countries						
Afghanistan	$ 2.33	$ 2.84	$ 6.68	$ 9.15	$ 13.24	$ 34.24
India	$ 8.21	$ 19.32	$ 21.20	$ 127.13	$ 123.86	$ 299.72
Pakistan	$ 2.83	$ 9.74	$ 12.07	$ 38.25	$ 24.64	$ 87.52
Nigeria	$ 10.82	$ 3.22	$ 31.76	$ 43.49	$ 60.48	$ 149.76
Countries with re-established transmission						
Chad	$ 0.88	$ 4.58	$ 5.61	$ 2.99	$ 7.24	$ 21.29
Angola	$ 1.85	$ 2.00	$ 7.46	$ 4.03	$ 8.95	$ 24.30
D.R. Congo	$ 2.19	$ 6.70	$ 10.24	$ 10.20	$ 22.01	$ 51.34
Sudan	$ 0.52	$ 0.61	$ 1.52	$ 5.60	$ 7.52	$ 15.77
South Soudan	$ 1.24	$ 1.30	$ 4.73	$ 2.49	$ 7.19	$ 16.94
Countries with recurrent importations						
West Africa						
Niger	$ 0.57	$ 0.33	$ 1.40	$ 3.67	$ 7.59	$ 13.55
Benin	$ 0.18	$ 0.32	$ 0.62	$ 2.05	$ 3.70	$ 6.87
Burkina Faso	$ 0.26	$ 0.50	$ 0.30	$ 3.80	$ 7.27	$ 12.13
Côte d'Ivoire	$ 0.28	$ 0.55	$ 1.47	$ 4.86	$ 5.83	$ 12.98
Sierra Leone	$ 0.22	$ 0.55	$ 0.48	$ 0.96	$ 2.65	$ 4.86
Guinea	$ 0.18	$ 0.21	$ 0.33	$ 1.99	$ 3.10	$ 5.81
Liberia	$ 0.22	$ 0.30	$ 0.54	$ 0.67	$ 1.68	$ 3.42
Mali	$ 0.25	$ 0.67	$ 0.15	$ 4.23	$ 8.07	$ 13.37
Mauritania	$ 0.18	$ 0.26	$ 0.32	$ 0.47	$ 1.51	$ 2.73
Senegal	$ 0.31	$ 0.63	$ 0.17	$ 1.81	$ 4.11	$ 7.02
Guinea Bissau	$ 0.06	$ 0.09	$ 0.15	$ 0.21	$ 0.48	$ 0.98
Gambia	$ 0.05	$ 0.10	$ 0.06	$ 0.15	$ 0.36	$ 0.72
Cape Verde	$ 0.04	$ 0.03	$ 0.01	$ 0.04	$ 0.12	$ 0.24
Togo	$ 0.13	$ 0.14	$ 0.19	$ 0.89	$ 1.26	$ 2.61
Ghana	$ 0.35	$ 0.30	$ 0.11	$ 2.83	$ 4.00	$ 7.59
Horn of Africa						
Ethiopia	$ 2.98	$ 0.38	$ 2.11	$ 2.64	$ 5.45	$ 13.55
Somalia	$ 0.62	$ 0.50	$ 2.13	$ 1.49	$ 2.98	$ 7.72
Kenya	$ 0.43	$ 0.92	$ 0.85	$ 2.69	$ 5.72	$ 10.61
Uganda	$ 0.39	$ 0.11	$ 0.58	$ 2.43	$ 4.17	$ 7.68
Eritrea	$ 0.13	$ 0.06	$ 0.18	$ 0.34	$ 0.27	$ 0.98
Yemen	$ 0.18	-	$ 0.25	$ 1.87	$ 3.25	$ 5.55
Djibouti	$ 0.05	-	$ 0.00	$ 0.05	$ 0.30	$ 0.40
Egypt	$ 0.36	-	$ 0.07	-	-	$ 0.43
Central Africa						
Cameroon	$ 0.39	$ 1.05	$ 0.58	$ 1.82	$ 1.88	$ 5.72
Central African Republic	$ 0.45	$ 0.20	$ 0.60	$ 0.52	$ 1.74	$ 3.51
Gabon	$ 0.09	-	$ 0.28	-	-	$ 0.37
Burundi	$ 0.09	-	$ 0.04	-	-	$ 0.13
Rwanda	$ 0.11	-	$ 0.36	-	-	$ 0.47
Congo	$ 0.13	-	$ 0.66	$ 0.32	$ 1.41	$ 2.52
U. R. Tanzania	$ 0.39	-	$ 0.39	-	-	$ 0.79
Zambia	$ 0.35	-	$ 0.65	-	-	$ 1.00
Other Importation-Affected Countries						
Southeast Asia						
Nepal	$ 0.37	$ 0.19	$ 0.92	$ 1.84	$ 2.40	$ 5.72
Myanmar	$ 0.40	-	$ 0.36	-	-	$ 0.76
Bangladesh	$ 1.03	$ 0.90	$ 1.31	$ 9.28	$ 2.60	$ 15.11
Europe						
Tajikistan	$ 0.12	-	-	$ 0.39	$ 0.66	$ 1.16
Uzbekistan	$ 0.06	$ 0.20	-	$ 0.88	$ 1.38	$ 2.52
Kazakhstan	$ 0.08	$ 0.05	-	$ 0.65	$ 1.00	$ 1.78
Turkmenistan	$ 0.08	-	-	$ 0.12	$ 0.33	$ 0.52
Kyrgyzstan	$ 0.04	-	-	$ 0.29	$ 0.40	$ 0.73

Annex B (continued)

2011 - 2012						
Country	AFP Surveillance	Social Moblization	Technical Assistance	OPV	Op Costs	Total Costs 2011 - 2012
Endemic Countries						
Afghanistan	$ 4.60	$ 5.68	$ 12.43	$ 17.12	$ 28.73	$ 68.56
India	$ 16.19	$ 38.74	$ 38.44	$ 252.59	$ 257.63	$ 603.59
Pakistan	$ 5.58	$ 17.45	$ 20.24	$ 74.71	$ 43.19	$ 161.16
Nigeria	$ 21.32	$ 6.60	$ 62.89	$ 104.35	$ 124.06	$ 319.22
Countries with re-established transmission						
Chad	$ 1.73	$ 7.33	$ 8.82	$ 6.82	$ 13.98	$ 38.67
Angola	$ 3.65	$ 4.24	$ 12.64	$ 10.62	$ 25.94	$ 57.09
D.R. Congo	$ 4.31	$ 9.80	$ 17.38	$ 27.03	$ 54.47	$ 113.00
Sudan	$ 1.02	$ 1.22	$ 2.99	$ 10.72	$ 17.40	$ 33.35
South Sudan	$ 2.44	$ 2.61	$ 9.59	$ 4.67	$ 13.96	$ 33.27
Countries with recurrent importations						
West Africa						
Niger	$ 1.12	$ 1.22	$ 2.71	$ 7.63	$ 15.48	$ 28.16
Benin	$ 0.35	$ 0.95	$ 1.44	$ 3.84	$ 5.80	$ 12.38
Burkina Faso	$ 0.51	$ 1.63	$ 0.57	$ 9.02	$ 17.05	$ 28.78
Côte d'Ivoire	$ 0.55	$ 1.85	$ 2.58	$ 11.39	$ 14.11	$ 30.48
Sierra Leone	$ 0.43	$ 0.89	$ 0.93	$ 2.01	$ 5.10	$ 9.37
Guinea	$ 0.35	$ 0.65	$ 0.68	$ 4.59	$ 7.68	$ 13.94
Liberia	$ 0.43	$ 0.83	$ 1.03	$ 1.57	$ 4.55	$ 8.41
Mali	$ 0.48	$ 2.28	$ 0.41	$ 10.07	$ 18.93	$ 32.16
Mauritania	$ 0.35	$ 0.73	$ 0.64	$ 1.00	$ 3.26	$ 5.97
Senegal	$ 0.60	$ 1.25	$ 0.29	$ 3.43	$ 6.55	$ 12.12
Guinea Bissau	$ 0.12	$ 0.23	$ 0.27	$ 0.37	$ 0.83	$ 1.82
Gambia	$ 0.10	$ 0.19	$ 0.11	$ 0.36	$ 0.76	$ 1.51
Cape Verde	$ 0.09	$ 0.10	$ 0.11	$ 0.07	$ 0.28	$ 0.64
Togo	$ 0.26	$ 0.39	$ 0.38	$ 1.67	$ 2.29	$ 4.99
Ghana	$ 0.69	$ 0.59	$ 0.21	$ 5.19	$ 7.76	$ 14.43
Horn of Africa						
Ethiopia	$ 5.87	$ 0.91	$ 4.85	$ 8.05	$ 8.96	$ 28.64
Somalia	$ 1.22	$ 0.72	$ 4.14	$ 3.43	$ 5.12	$ 14.62
Kenya	$ 0.84	$ 1.35	$ 1.68	$ 4.29	$ 11.36	$ 19.52
Uganda	$ 0.76	$ 0.22	$ 1.16	$ 4.24	$ 9.47	$ 15.85
Eritrea	$ 0.26	$ 0.12	$ 0.29	$ 0.36	$ 0.27	$ 1.30
Yemen	$ 0.36	$ 0.32	$ 0.48	$ 3.47	$ 6.05	$ 10.68
Djibouti	$ 0.09	-	$ 0.00	$ 0.05	$ 0.45	$ 0.59
Egypt	$ 0.71	-	$ 0.13	-	$ 0.00	$ 0.84
Central Africa						
Cameroon	$ 0.78	$ 1.95	$ 1.09	$ 3.45	$ 3.38	$ 10.65
Central African Republic	$ 0.89	$ 1.12	$ 1.21	$ 1.00	$ 2.73	$ 6.95
Gabon	$ 0.17	-	$ 0.60	$ 0.84	$ 0.19	$ 1.81
Burundi	$ 0.17	$ 0.21	$ 0.09	$ 0.53	$ 0.78	$ 1.78
Rwanda	$ 0.21	$ 0.20	$ 0.67	$ 0.53	$ 0.97	$ 2.57
Congo	$ 0.26	$ 0.16	$ 1.26	$ 4.30	$ 2.50	$ 8.47
U. R. Tanzania	$ 0.78	-	$ 0.72	$ 1.54	-	$ 3.04
Zambia	$ 0.69	-	$ 1.22	$ 0.03	$ 0.15	$ 2.09
Other Importation-Affected Countries						
Southeast Asia						
Nepal	$ 0.73	$ 0.45	$ 1.76	$ 3.46	$ 4.83	$ 11.24
Myanmar	$ 0.75	-	$ 0.61	$ 1.17	-	$ 2.53
Bangladesh	$ 2.03	$ 0.90	$ 2.58	$ 17.01	$ 4.66	$ 27.17
Europe						
Tajikistan	$ 0.23	-	-	$ 0.77	$ 1.31	$ 2.32
Uzbekistan	$ 0.12	$ 0.40	-	$ 1.95	$ 2.76	$ 5.23
Kazakhstan	$ 0.15	$ 0.11	-	$ 1.01	$ 2.00	$ 3.27
Turkmenistan	$ 0.16	-	-	$ 0.34	$ 0.65	$ 1.15
Kyrgyzstan	$ 0.08	-	-	$ 0.83	$ 0.80	$ 1.71

Annex C | Surveillance and laboratory costs by country and region, 2011

Excluding programme support costs (all figures in US$ millions)

WHO African Region	2011
Algeria	$ 0.03
Angola	$ 1.80
Benin	$ 0.17
Botswana	$ 0.09
Burkina Faso	$ 0.26
Burundi	$ 0.09
Cameroon	$ 0.38
Cape Verde	$ 0.04
Central African Republic	$ 0.44
Chad	$ 0.85
Comoros	$ 0.04
Congo	$ 0.13
Côte d'Ivoire	$ 0.27
Democratic Republic of the Congo	$ 2.13
Equatorial Guinea	$ 0.04
Eritrea	$ 0.13
Ethiopia	$ 2.89
Gabon	$ 0.09
Gambia	$ 0.05
Ghana	$ 0.34
Guinea	$ 0.17
Guinea-Bissau	$ 0.06
Kenya	$ 0.42
Lesotho	$ 0.04
Liberia	$ 0.21
Madagascar	$ 0.38
Malawi	$ 0.17
Mali	$ 0.24
Mauritania	$ 0.17
Mauritius	$ 0.02
Mozambique	$ 0.26
Namibia	$ 0.13
Niger	$ 0.55
Nigeria	$ 10.50
Rwanda	$ 0.10
Sao Tome and Principe	$ 0.01
Senegal	$ 0.30
Seychelles	$ 0.01
Sierra Leone	$ 0.21
South Africa	$ 0.26
Swaziland	$ 0.07
Togo	$ 0.13
Uganda	$ 0.37
United Republic of Tanzania	$ 0.38
Zambia	$ 0.34
Zimbabwe	$ 0.23
Regional surveillance and laboratory	$ 5.14
Subtotal	$ 31.11

WHO Region of the Americas	2011
Regional surveillance and laboratory	$ 0.58

WHO Eastern Mediterranean Region	2011
Afghanistan	$ 2.27
Djibouti	$ 0.05
Egypt	$ 0.35
Iraq	$ 0.06
Pakistan	$ 2.75
Somalia	$ 0.60
Sudan	$ 0.50
South Sudan	$ 1.20
Yemen	$ 0.18
Regional surveillance and laboratory	$ 1.20
Subtotal	$ 9.15

WHO South-East Asia Region	2011
Bangladesh	$ 1.00
India	$ 7.98
Indonesia	$ 0.74
Myanmar	$ 0.34
Nepal	$ 0.36
Regional surveillance and laboratory	$ 4.86
Subtotal	$15.29

WHO European Region	2011
Armenia	$ 0.01
Azerbaijan	$ 0.03
Bosnia	$ 0.08
Georgia	$ 0.02
Kazakhstan	$ 0.07
Kyrgyzstan	$ 0.04
Moldova	$ 0.01
Tajikistan	$ 0.12
Turkey	$ 0.01
Turkmenistan	$ 0.08
Ukraine	$ 0.01
Uzbekistan	$ 0.06
Regional surveillance and laboratory	$ 1.44
Subtotal	$ 1.95

WHO Western Pacific Region	2011
Regional surveillance and laboratory	$ 1.14

WHO/HQ	2011
WHO/HQ	$ 14.51

Global	2011
Total	$ 73.73

As of 29 September 2011.

Annex D | Technical assistance, country-level details 2011

Excluding programme support costs (all figures in US$ millions)

WHO African Region	2011
Angola	$ 4.62
Benin	$ 0.39
Botswana	$ 0.12
Burkina Faso	$ 0.20
Burundi	$ 0.04
Cameroon	$ 0.48
Central African Republic	$ 0.61
Chad	$ 2.18
Congo	$ 0.45
Côte d'Ivoire	$ 1.04
D.R. Congo	$ 5.02
Equatorial Guinea	$ 0.12
Eritrea	$ 0.11
Ethiopia	$ 2.37
Gabon	$ 0.32
Gambia	$ 0.05
Ghana	$ 0.10
Guinea	$ 0.10
Guinea-Bissau	$ 0.12
Kenya	$ 0.83
Lesotho	$ 0.07
Liberia	$ 0.44
Madagascar	$ 0.09
Malawi	$ 0.07
Mali	$ 0.25
Mauritania	$ 0.07
Mozambique	$ 0.27
Namibia	$ 0.13
Niger	$ 1.27
Nigeria	$ 24.81
Rwanda	$ 0.31
Senegal	$ 0.12
Sierra Leone	$ 0.40
South Africa	$ 0.31
Swaziland	$ 0.09
Togo	$ 0.19
Uganda	$ 0.41
United Republic of Tanzania	$ 0.33
Zambia	$ 0.57
Zimbabwe	$ 0.12
IST (Central block)	$ 1.20
IST (South/East block)	$ 1.26
IST (West block)	$ 1.18
Regional Office	$ 1.26
Subtotal	$ 54.51

WHO Western Pacific Region	2011
Cambodia	$ 0.09
China	$ 0.27
Fiji	$ 0.09
Lao PDR	$ 0.09
Philippines	$ 0.09
Papua New Guinea	$ 0.09
Viet Nam	$ 0.09
Regional Office	$ 0.63
Subtotal	$ 1.43

WHO Eastern Mediterranean Region	2011
Afghanistan	$ 4.25
Djibouti	$ 0.00
Egypt	$ 0.07
Iran	$ 0.01
Iraq	$ 0.00
Pakistan	$ 6.26
Somalia	$ 1.35
Sudan	$ 1.33
South Sudan	$ 4.03
Yemen	$ 0.23
Regional Office	$ 1.27
Subtotal	$ 18.79

WHO South-East Asia Region	2011
Bangladesh	$ 1.27
India	$ 15.50
Indonesia	$ 0.77
Myanmar	$ 0.26
Nepal	$ 0.80
Regional Office	$ 1.34
Subtotal	$ 19.94

WHO European Region	2011
Regional Office/Countries	$ 1.00
Subtotal	$ 1.00

WHO	2011
WHO/HQ	$ 10.18
Short Term Tech Assistance	$ 11.13
Surge Capacity	$ 4.67
Subtotal	$ 25.98

UNICEF	2011
UNICEF HQ/RO	$ 5.70
Afghanistan	$ 1.50
Angola	$ 0.55
Benin	$ 0.43
Burkina Faso	$ 0.07
Cameroon	$ 0.03
Cap Vert	$ 0.05
Chad	$ 1.04
Congo	$ 0.15
Côte d'Ivoire	$ 0.07
D.R. Congo	$ 2.12
Djibouti	$ 0.00
Ethiopia	$ 0.38
Gambia	$ 0.00
Guinea	$ 0.25
Guinea-Bissau	$ 0.00
India	$ 1.74
Kenya	$ 0.00
Liberia	$ 0.06
Mali	$ 0.00
Mauritiana	$ 0.26
Nepal	$ 0.05
Niger	$ 0.04
Nigeria	$ 6.32
Pakistan	$ 1.91
Rwanda	$ 0.00
Senegal	$ 0.00
Sierra Leone	$ 0.05
Somalia	$ 0.66
Sudan	$ 0.15
South Sudan	$ 0.83
Togo	$ 0.00
Uganda	$ 0.17
Subtotal	$ 24.55

Global WHO-UNICEF	2011
Total	$146.19

As of 29 September 2011.

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