Bangladesh
Internal Appraisal 2014

1. Brief Description of Process

This Internal Appraisal (IA) updates the Panel on Bangladesh's immunization progress over the past year. The IA was conducted by Dirk Gehl (Senior Country Manager) and Mursaleena Islam (external Senior Health Systems Specialist) and is based on documentation provided to Gavi by the Government of Bangladesh and development partners for the year 2013 and up to September 2014.

Bangladesh's grant renewal for vaccines support follows a request for the calendar year 2013 coinciding with the financial cycle of UNICEF SD while the HSS grant renewal request since inception follows Bangladesh's own planning and budgeting cycle, July to June. We aim to see how best to reconcile this process in future once the new Performance Framework is developed to avoid sequential reporting. The country has to submit the HSS report six month after the end of the financial year and the HSS section is based on a draft report which is not yet formally submitted to the Gavi Secretariat.

Decisions are requested from the Panel on the existing support for the penta and measles programmes.

2. Achievements and Constraints

The immunization programme enjoys strong government ownership, is compared to other basic health services well managed, and has demonstrated high coverage of all antigens over many years (e.g. DTP3 coverage of 93%) with high regional (98% of districts achieving more than 80% coverage) and gender equity (less than 1% difference). The coverage for fully vaccinated children (FCV) has according to MoHFW/UNICEF survey data increased to 84%.

Despite the high coverage, there are data quality issues with differences between the administrative and WUENIC 2013 data (e.g. 7% for measles, 11% for DTP3) and a low (1 star) grade of confidence (GoC) for data quality. The last reported survey covered cohort is of 2010 (DHS) and a MICS[1] was conducted in 2012/13 for the survey cohort of 2011/12. A new DHS is planned for 2014. Regular data quality self-assessments are conducted down to the level of the district health services.

Recent 2013 survey data indicates that the coverage in 9 out of 13 Gavi HSS supported districts increased but has been constant or decreasing in 4 districts. The data requires further analysis and the causes could be related to vacancies of health staff responsible for immunization services in those 4 districts.

Urban immunization coverage is according to the EPI survey 2013 equally high than in rural areas but remains a challenge due to high migration of population. Coverage rates still also differ across wealth quintiles, e.g. DTP3 is 90.2% for the poorest and 94.1% for the richest quintile.

A summary of the 2013 EPI coverage and wastage is provided below:

[1] Multi-indicator cluster survey

Number	2013 Achievements as per JRF		2013 WHO/ UNICEF estimates
	Original approved target according to Decision Letter	Reported	
Total births	3,478,236	3,478,236	
Total infants' deaths	149,564	149,564	
Total surviving infants	3,328,672	3,328,672	
BCG coverage	98 %	106 %	99%
OPV3 coverage	93 %	108 %	97%
DTP3 coverage	93 %	108 %	97%
Wastage*[1]* rate in base-year and planned thereafter (%) for DTP	0	0	
DTP-HepB-Hib coverage	109 %	108 %	97%
Maximum wastage rate value for DTP-HepB-Hib, 1 dose(s) per vial, LIQUID	5 %	5 %	
Measles coverage	100 %	99 %	93%
Maximum wastage rate value for Measles second dose, 10 dose(s) per vial, LYOPHILISED	40.00 %	40.00 %	
Annual DTP Drop out rate [(DTP1 – DTP3) / DTP1] x 100	2 %	2 %	2%
TT+ coverage	100 %		94 %

Bangladesh continued in 2013 to intensify routine immunization activities in low performing districts on the basis of micro-plans developed using the UNICEF RED strategy, updated the list of hard to reach areas, identified dropout & left out children of under one year for vaccination and children for MSD and conducted several trainings (training of trainers for mid-level managers and for monitoring of EPI, refresher courses for AEFI management & VPDs). A computerized data management system was introduced in 102 Upazila/ 19 Districts.

Health sector situation in Bangladesh

The health situation of the population in Bangladesh improved constantly since the 1990s and under the sector programmes which are implemented since 2000. The current third SWAp is the Health, Nutrition and Population Sector Development Programme (HNPSDP) which is implemented from 2011-2016.

The total development budget of the sector programme is US$ 3 billion with a share of government of US$ 1.16 billion and development partners with US$ 1.84 billion. The government funding is projected to considerably fall short for the sector programme with a deficit of 44%. The **share of health in the national budget** is also decreasing and below 1% of GDP and only because of economic growth rates the absolute allocation is increasing. Out-of-pocket expenditures are very high with 64% and contribute significantly to inequities for access to health services.

The Gavi support is part of the HNPSDP. Gavi NVS and HSS funds are not part of the Multi-Donor Trust Fund (MDTF) managed by the World Bank but are transparently included in the budget and operational plans of the MoHFW. More details with reference to financing of the EPI programme and new vaccines are in Section 11 below.

The country is on track to reach the **MDG 4** with an under-five-mortality of 43/1000 (target 29/1000) and **MDG 5** with a maternal mortality of 194/100.000 (target 143/100.000). The **neonatal mortality** is still too high at 31/1000 (target 21/1000) and improvements in **maternal health services** do not meet the expectations and point at weaknesses in the health systems. The deliveries by skilled birth attendants, ANC and PNC visits are all around 25% and have target values of 50% to be reached by 2016. The total fertility rate (TFR) decreased to 2.3 children/woman and is projected to reach replacement levels soon. However, TFR differs

significantly between 1.9 and 3.1 among the regions and improving access to FP services remains a priority. The **nutritional status** (stunting, children under five with underweight) is ameliorating but indicators are plateauing. As many developing countries Bangladesh faces an epidemiological transition from communicable to **non-communicable diseases** for which the health system is not well prepared. HIV/AIDS prevalence remains below 1%, Malaria is a regional problem which has worsened in recent years and the TB prevalence rate is among the highest worldwide. The national TB programme has good detection and treatment rates (>90%) but rising numbers of MDR-TB cases.

Despite the progress towards reaching health related MDGs, the health system has major limitations and weaknesses. **Human resources** remain a major area of concern with the lack of a coherent strategy, insufficient capacities for education, weak managerial skills, skewed numerical ratios between doctors and nurses/ health staff, high proportion of vacancies and low retention in remote and poor areas. **Quality of health services** is perceived as not satisfactory. Public health services for the poor in **urban areas** are inferior to rural areas due to problems of institutional responsibilities and coordination between MoHFW and local governments. The **needs based planning and maintenance** of infrastructure is hardly improving. Capacity and performance in the areas of **financial management** and **procurement** are scarcely sufficient for the management of a large sector programme. On the positive side, additional recruitments are ongoing and resulted in a reduction of the vacancy rate from 20% to 15%, monitoring and evaluation and the HMIS have made progress and the stewardship of MoHFW over planning and managing HNPSDP has been improved.

The EPI programme performs overall significantly better than other public health services and is to a certain extent less affected by health systems constraints. However, Gavi support, specifically through HSS, should be cognisant of these limitations and contribute to structural improvements in alignment with the objectives and activities of the sector programme.

3. Governance

The ICC met 5 times between May 2013 and May 2014 and the minutes were included with the APR 2013. The membership is comprised of MoHFW, MoF, WHO, UNICEF, World Bank, development partners (DFTAD, DFID, JICA, USAID) and civil society (BRAC, Rotary). Government and development partners are also members of the larger Local Consultative Group Health (HSCC equivalent in Bangladesh), which ensures good information exchange regarding Gavi issues.

The minutes are detailed and reflect clear decisions and follow-up. The decisions in 2013 were related to the PCV introduction, preparation of the MR campaign, the HPV demo application, IPV introduction and EoI for a new HSS grant. However, DPs also requested for more time and advance information to review applications (e.g. MR campaign in 2012) and reports (APR 2013).

The ICC minutes refer to recommendations of the National Committee for Immunization Practices (NTAGI equivalent), NRA and the ICC Technical Sub-Committee (e.g. for MR, PCV and IPV introductions). The APR 2013 does not explicitly mention these institutions and explain their role in preparing policy decisions. This is an area of further information demand and needs a follow-up for next year's progress review.

The ICC is well positioned to be an effective forum for the policy dialogue regarding immunization and Gavi support in Bangladesh. Realizing the full potential of the group requires only marginal additional efforts regarding its management, e.g. advance sharing of information and documents, encouragement of open discussions and increasing the knowledge about Gavi guidelines and processes among members.

4. Programme Management

The EPI was established in 1979 and has successfully introduced HepB, Hib as Pentavalent, MR and MSD vaccines in 2003, 2009 and 2012 respectively. Together with Tuberculosis and Polio, the programme provides now 9 antigens.

The cMYP spans from 2011 to 2016 and comprehensive update is still planned for 2014. There is a section on the introduction of new and underused vaccines (Penta, PCV, Rota, heb B birth

dose, Td vaccine, Rubella, Measles) but IPV is yet to be specifically reflected. The cost calculations of the EPI programme also require an update and this has already been highlighted in the IRC report for the MR campaign (October 2012. Decision Letter, April 2013). The country plans to update the cMYP soon, with technical support from UNICEF.
The EPI programme has 7 clearly defined and measureable objectives (see APR 2013, Section 5.8 Priority Actions in 2014 and 2015). Key activities are listed for each of the objectives. However, reporting on such activities and processes is not comprehensively included in the APRs.

An EPI, VPD surveillance review and a Post-Introduction Evaluation of Hib (pentavalent) vaccine was conducted in Bangladesh in March 2012, and findings reflected strong programme components and highlighted some weaknesses. This information is already included in previous APRs and IRC reports.

The AEFI surveillance system is in place in all districts and health staff has been trained on AEFI reporting, recording and investigation. An independent AEFI committee has been formed at national level and all serious AEFI cases are investigated and causality assessment is done by AEFI committee members. Special focus on crises communication strategy and training regarding AEFI is being considered and should be addressed.

Waste management is based on the National Policy on Injection Safety. The final disposal of used syringes and sharps is being done by incineration or mostly by pit burning. However, waste management and disposal are very deficient in the health sector and require urgent action. This problem has also been addressed in the context of the SWAp and extends to the treatment of all the medical waste.

5. Programme Delivery

Bangladesh received support for penta and measles in 2013. There were no problems with vaccine shipments or stock-outs. The penta wastage rates are very low due to the one dose vial presentation (see table 7.1 in the APR 2013).

The **MR campaign** was approved in April 2013 and implemented in January/ February 2014. The target group was a population of almost 53 million (9 month to 15 years old) and this was largest cohort ever reached by a Gavi programme. The SIA technical report has been submitted by the EPI programme to WHO/UNICEF in May. It shows that the campaign was able to reach 100% coverage and was conducted safely. The few observed AEFI were well managed at different levels of the referral system and the AEFI expert committee met during the SIA to review the cases. The campaign was implemented as planned despite political tensions and roadblocks in the country in the weeks before the SIA. NGOs supported MoHFW especially in urban areas and the Lion's Club of Bangladesh as a Gavi partner was strongly engaged in social mobilisation.

The **MR campaign evaluation will be part of the 2014 Full Country Evaluation (FCE)** by Gavi in Bangladesh. The work has two specific objectives of assessing the impact of the MR campaign on 1) improving MR coverage and 2) on the routine EPI program, including key functions of the immunization system.

Bangladesh's **PCV** application was approved in approved in April 2012 and the introduction is expected in November 2014.

IPV support was approved in April 2014 with an introduction date now in Q1 2015.

The country submitted an application for **HPV demo** for the IRC in November 2014 and considers applying for Rota and HebB birth dose. A proposal for a new **HSS grant** is expected in early 2015.

The **Full Country Evaluation (FCE) work streams** also include a follow-up and tracking of PCV and IPV introduction (and HPV if approved) and of other immunization related decision-making.
A **new EVM assessment** has been carried out in August 2014, following by an EVM improvement plan, and the findings should be finalized by November. The overall performance of the vaccine management will be "very good" with 82% aggregated across all criteria, which is substantially better than the norm. However, there is need to implement and monitor the EVM improvement plan to address risks of parts of the infrastructure operating at its life cycle end and

capacity limits and to prepare for the introduction of new vaccines. This will require an increase of 21% by 2015 and 60% by 2018 in storage capacity for each of the 3 tiers of the supply and cold chain. The preliminary assessment which will be included in the EVM improvement plan identified investments of approx. US$ 12 million for the cold chain, transport, temperature monitoring, MIS and studies for waste management. Bangladesh will be one of the first countries to adopt the comprehensive EVM (cEVM) approach and establish an EVM secretariat or equivalent.

The support for the implementation of the EVM improvement plan should be part of the next HSS grant application.

6. Data Quality

As mentioned above, there are discrepancies between 4-11% between WUENIC estimates and administrative coverage and the data has a low GoC. Reported coverage rates above 100% indicate denominator problems. The DHS for 2014 should improve this situation. The roll-out of computerized data entry, data quality self-assessments and other activities regarding the HMIS in the context of the sector programme are other promising developments.

It should be explored how the next HSS grant could contribute to better information and DQ regarding immunization, including automated and electronic EPI data systems, integrated with national HMIS.

7. Global Polio Eradication Initiative, if relevant

Bangladesh is polio free since 1996 and has achieved high level coverage against polio (97%). IPV will be introduced in Q1 2015, with preference for a 5-dose vial.

8. Health System Strengthening

The APR 2013, submitted in May 2014, does not include the section on HSS as the country submits such reports within 6 months of the end of their fiscal year (June). The review mission of the Gavi Secretariat received an update on the programme implementation in September/ October 2014 which will be the basis for the HSS progress report. A draft of the HSS section of the APR was provided – a final version with LCG signatures is expected by end of October 2014.

The current Gavi HSS grant was originally approved in 2009 and designed then with a focus on maternal and child health. After delays (from both Gavi and the Country), implementation started in 2011 and is expected to be completed in early 2015. The programme's objectives are to recruit MCH and Immunization workers (Objective 1), improve their supervision and programme monitoring (Objective 2), close gaps in equipment and physical infrastructure (Objective 3), and improve universal MCH services delivery through strengthened human resource management (Objective 4). It originally targeted 13 low performing districts and was extending for the second phase in 2014 to an additional 19 districts.

Data on immunization coverage since 2009 is improving in the Gavi supported areas (in section 2 a few recent regionally confined set-backs have been mentioned which need further analysis. The lower coverage is according to the EPI programme linked to vacancies of District MCH and Immunization Officers). As the table below shows, some districts showed large improvements, while other did not. The FCE in Bangladesh will assess how Gavi's HSS support contributed to these improvements and document some of the reasons for non-improvement.

Name of District	2011	2013
Khagrachori	73.4	78.9
Rangamati	**80.8**	**68.1**
Banderban	73.1	81.1
Coxes Bazar	77.8	84.5
B Baria	72.6	74.6
Noakhali	**75.3**	**72.6**
Sunamgonj	77.3	78.3
Hobigonj	75.9	85.7
Moulvibazar	**80.3**	**79.0**
Nilphamari	71.4	88.0
Gaibandha	**82.9**	**82.9**
Netrokona	72.2	74.3
Bhola	74.7	76.2

The first tranche of US$ 7.2 million was disbursed for the financial year 2011/12 and this phase was completed in June 2013 (FY 2012/13). The residual funds amounted to US$ 1.9 million. The funds available for the second phase of the programme are US$ 6.4 million and the residual funds summing up to a total of US$ 8.3 million. The HSS grant is also integrated into Operational Plans of the ministry and consequently part of the sector programme.

The implementation of the second phase was delayed because of the late submission of the external audit for FY 2011/12 which did not permit disbursements by the Gavi Secretariat until April 2014. Financial management and audit issues are dealt with more detail in section 10 below.

The draft HSS APR 2013 describes with sufficient detail the progress against these objectives and respective activities. This indicates improved performance of the programme in 2013/14. Activities of the grant concretely are

- Recruitments and trainings at district and community level of MCH and immunization officers, workers, volunteers, porters, cold chain engineers to fill vacant posts
- Trainings for supervisors and skilled birth assistants
- Support to community groups to create demand for health services
- Investments and procurements for District EPI store, IT equipment, vehicles and transportation
- Renovation and extension of 105 Community Clinics (CCs) incl. furniture, water & sanitation
- Technical assistance (improvement of pregnancies registers, birth and death registries, 2 visits of EPI HQ staff to other Gavi countries)
- Operational and management costs (Monitoring & Evaluation, national coordinator, meetings, support staff)

MoHFW informed that the “Support to District Micro-Plans for Quality MNCH Services” (New Activity 3) will be implemented with UNICEF funds. The allocated budget of US$ 1.19 million will be re-aligned to recruit additional District MCH and Immunization Officers in the new 19 districts (New Activity 1). This will require in-country LCG sign-off followed by Gavi Secretariat sign-off.

The second phase of the current HSS grant requires improved planning and monitoring for its implementation to avoid delays and re-programming of funds as experienced since the approval of the HSS grant in 2009. The MOHFW aims at absorbing the remaining funds until March 2015, which is an ambitious target. However, the progress report addresses these bottlenecks openly.

The Gavi Full Country Evaluation (FCE) work also includes an assessment of the implementation of HSS grant with the focus on the impact of supported Community Clinics (CC). Monitoring the impact of the grant will also be an important issue for **the final report of grant implementation** to be submitted by the ministry in 2015. The sustainability of covering staff and operational costs through grant funds is a particular concern.

Bangladesh has submitted an **EoI for a new HSS grant** in May 2014. The preparations for this programme have been started with a request for TA to WHO for the development of a proposal. It was agreed upon among the stakeholders (MoHFW, WHO, UNICEF, Gavi Secretariat, development partners) that the process should be anticipatory, transparent and inclusive to ensure ownership and coordination in the context of the sector programme. Gavi has set the HSS grant ceiling at US$ 100 million, with a maximum amount to budget of US$84 million under performance based funding (PBF) approach. Country does not have to budget up to this maximum amount and will have to demonstrate need (such as based on cMYP and EVM improvement plan) and adequate implementation arrangements for satisfactory utilisation of these funds. It was also discussed that there will need to be some assessment of the current HSS grant conducted to document achievements and lessons learned – MOHFW informed that there are funds under "Operational and management costs" of the current grant which can be used for such an assessment. Findings of such an assessment will be important for the Country's application for the next HSS grant, as this is a required section of the new grant application.

9. Use of non-HSS Cash Grants from Gavi

(Not applicable - Bangladesh did not receive non-HSS Grants in 2013.)

10. Financial Management

A financial management assessment was carried out in Bangladesh in 2009 and an Aide-memoire signed in June 2010. The HSS funds are disbursed to government and externally audited on an annual basis, though the process was delayed last year due to management changes.

The audit report for the FY2011/12 issued an unqualified opinion stating that the books of account of the project have been maintained properly and expenses incurred are in accordance with the purposes of the project. The Financial Management System appears to be satisfactory for the management of the HSS programme.

The utilization of HSS funds in 2011/12 was at the level of 25%. It is thus necessary to monitor the current progress of the programme to ensure timely implementation of activities. The second and remaining tranche of the HSS grant amounting to US $ 6.4 million has been transferred in April 2014.

The audit report for the year ended June 30, 2013 was due on December 31, 2013 and has not yet been received. The work is currently progressing. **The external audit for the FY 2012/13 and 2013/14 should be contracted out jointly to one auditor.**

Furthermore, there are financial reporting gaps which need to be addressed:

- The quarterly reports required as per the Aide Memoire for ISS/VIG and HSS have never been received
- As observed during the review of the HSS APR 2012, the MoHFW has to provide the aggregated financial statements for all 3 components of GAVI HSS (1. Maternal, Neonatal Child and Adolescent Health Care, 2. Community Based Health Care, 3. Sector Wide Programme Management and Monitoring) including opening and closing balances, in local currency and USD, for the financial year ended June 30, 2013.

A **Cash Programme Audit (CPA)** for Gavi support is planned for the end of 2014 and these issues should be addressed in preparation of this audit.

11. NVS Targets

The objectives of the EPI programme are listed in section 4, see above. The targets for the MR campaign, introduction of IPV and HPV demo which are relevant for 2014 and 2015 are also defined there. The targets are all realistic and the assumptions and risks have been listed under the deficits of the SWAp, health system and the EVM improvement plan.

12. EPI Financing and Sustainability

The following table from the APR 2013, section 5.5., summarizes the financing situation of the EPI programme in Bangladesh:

Expenditure by category	Expenditure Year 2013	Country	GAVI	UNICEF	WHO	World Bank/Pool Fund
Traditional Vaccines*	12,611,516	0	0	2,342,187	0	10,269,329
New and underused Vaccines**	32,259,804	0	29,431,943	0	0	2,827,861
Injection supplies (both AD syringes and syringes other than ADs)	471,964	334,625	137,339	0	0	0
Cold Chain equipment	2,807,062	0	0	1,098,764	1,212,523	495,775
Personnel	665,000	0	0	0	665,000	0
Other routine recurrent costs	3,954,685	1,632,222	93,162	1,879,511	349,790	0
Other Capital Costs	0	0	0	0	0	0
Campaigns costs	1,916,925	1,485,788	0	274,590	156,547	0
Campaign Vaccine Cost		0	0	0	0	7,560,000
Total Expenditures for Immunisation	**54,686,956**					
Total Government Health		**3,452,635**	29,662,444	5,595,052	2,383,860	21,152,965

Government funds are thus covering **approx. 6% only** (US$ 3.4 million/ US$ 54.7 million) from the total expenditures on immunization. Traditional vaccines and Gavi co-financing are largely covered by the pool fund of HNPSDP and thus other development partner resources. (These ratios are not consistent with the information e.g. reported in the WHO EPI Fact Sheet 2013 for Bangladesh where it is stated that 33% spending on the RI programme is financed by government. This is probably because of attributing pool funds as government financing.) With the introduction of new vaccines this situation is unlikely to improve in 2014.

This underscores the issues of currently insufficient budget resources for health in general as described in section 2 above. Covering immunization costs would be a very compelling case to be put forward by the MoHFW to MoF for increasing the allocations of the recurrent or development budget.

The country has never defaulted on its co-financing obligations. The respective amounts are stated in the table above in the Pool Funds column for NVS and injection supplies.

13. Renewal Recommendations

Topic	Recommendation
NVS	Renew Pentavalent vaccine for 2015, without a change in presentation
MCV	Renew MCV vaccine for 2015

14. Other Recommended Actions

Topic	Action Point
HSS	Resolve audit issues; submit past due external audit report for FY2012/13 as soon as possible and for FY2013/14 by December 2014.
HSS	Implement HSS grant in FY2014/15 as planned and submit “end of grant” report, including all assessment findings, with new HSS grant application.