Joint appraisal report

Country	NEPAL
Reporting period	*2014*
cMYP period	*2011 - 2016*
Fiscal period	*January – December 2014*
Graduation date	*Not applicable*

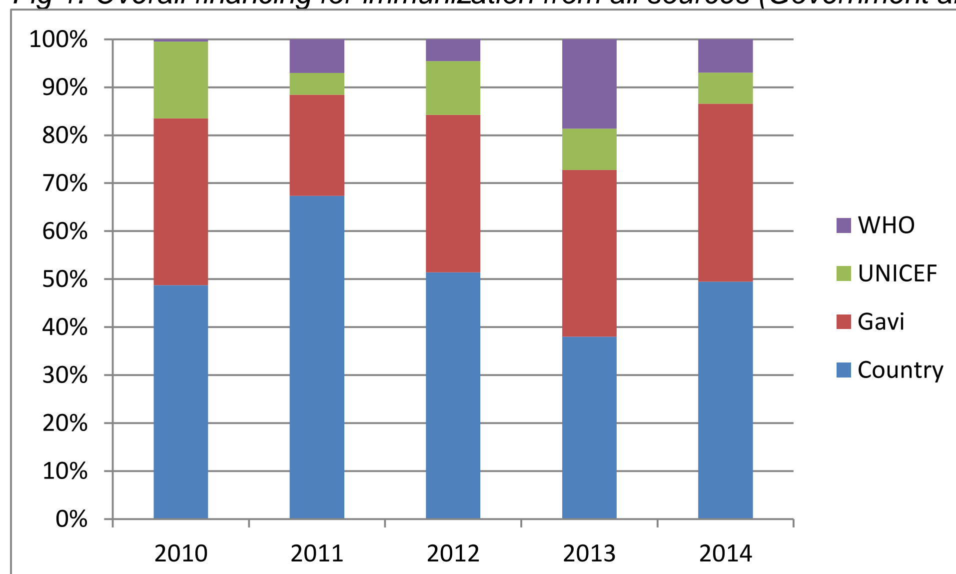
1. EXECUTIVE SUMMARY

1.1. Gavi grant portfolio overview

The Government of Nepal has received Gavi support on new and underutilized vaccines (NVS), health system strengthening (HSS), and other immunization related areas since 2002. It started with NVS for HepB mono (2002-2004), immunization services support (2002-2004, 2006, 2007), and injection safety support (2002-2005).Health system strengthening support was received as HSS1 (2008-2009) and HSS2 (2010, 2012-2013). Tetravalent vaccine (DTP-HepB) NVS support was received from 2005-2007. Currently running support includes NVS for pentavalent vaccine (2009-2015), IPV (2014-2016), PCV (2014-2016), HPV demonstration project (2015-2016), MSD (2015-2016), and JEV campaign (for 2016); and cash support (CASHSUPP; 2015-2016). Furthermore, Nepal has been receiving VIG from Gavi (2002, 2008, 2013-2015). As of June 2015, Nepal has received a total of US$ 83.9 million, 64% of which is for vaccine support and 36% for non-vaccine support. The Gavi support is reflected in the Government of Nepal's annual workplan/red book each year. In July 2015, Nepal has been awarded HSS grant for five years (2015-2019).

In 2014, out of US$ 12.9 million total expenditure on immunization, US$ 6.4 million (49.5%) was borne by the government, US$ 4.8 million (37%) was supported by Gavi, US$ 844,149 (6.5%) was supported by UNICEF and US$ 903,554 (7%) was supported by WHO. In the past 5 years, each year, the government has financed 38% to 67% of the overall expenditure on immunization, whereas Gavi has financed 21% to 37% (see Fig1. below)

Fig 1. Overall financing for immunization from all sources (Government and donors), 2010-2014



In 2014, the coverage of DTP1 was 94% whereas the coverage of DTP3 was 92%; OPV3 was 92%; whereas, MCV1 was 88% in Nepal (JRF, 2014). Nepal MICS 2014 shows that 84.5% of children received all vaccinations in the routine immunization. Nepal Demographic and Health Survey 2011 shows that boys are slightly more likely to be fully immunized than girls (88% vs. 86%), whereas NMICS 2014 shows 89.8% of boys and 86.5% of girls are covered by DTP3. Urban-rural difference in immunization coverage is 92.7% vs. 83.4% (NMICS 2014). Factors adversely affecting immunization coverage are increasing birth order, mothers with no education, and decreasing wealth quintile (NDHS 2011).

Among the newly introduced vaccines, IPV was introduced in the routine immunization of Nepal on 18 September 2014 as planned. PCV was started in phase-wise manner in the country since 18 January 2015 and has covered all districts of Nepal by September 2015. The MRSD was launched in 15 September 2015. HPV demonstration project, which was planned to start in May 2015, has been postponed to October/November 2015 due to earthquake in April and thereafter reflection of its operational budget in new fiscal year July 2015-July 2016. Currently, the plan for implementation for HPV demo project is progressing adequately.

The strategic focus for HSS grant was to improve human resources for health, improve service delivery and improve physical asset management to sustain the coverage and equity for immunization. The HSS grant has been utilized to improve the human resource capacity on immunization and MNCH, improve the coverage of services in disadvantaged area and improve stock management.

1.2. Summary of grant performance, challenges and key recommendations

Grant performance (programmatic and financial management of NVS and HSS grants)

Achievements
- Sustained high coverage of pentavalent vaccine (≥90%). 84.5% of children are fully immunized.
- IPV and PCV vaccines are implemented in the routine immunization.
- NHSP-2 target set for under 5 mortality to reach 38/1000 live births has been met.
- NHSP-2 target set for coverage of measles vaccine (MCV1) has been met (90% target vs. 92.6% achievement).

Challenges
- Gender inequity in immunization is very small. However, difference between immunization coverage in urban and rural areas, and richest and poorest is high.
- Other targets of NHSP-2 such as reduction in neonatal mortality rate are yet to be met.

Key recommended actions to achieve sustained coverage and equity (list the most important 3-5 actions)
- Ensure timely availability of vaccines in public health facilities by enhancing institutional capacity for managing procurement.
- Improve equitable access to basic health care services including immunization by community mobilization and participation for full immunization in low coverage area.
- Improve health expenditure management.

1.3. Requests to Gavi's High Level Review Panel

Grant Renewals

New and underused vaccine support
- *Pneumococcal (PCV10), 2 dose(s) per vial, LIQUID*

- *DTP-HepB-Hib, 10 dose(s) per vial, LIQUID*
- *Measles second dose, 10 dose(s) per vial, LYOPHILISED*
- *IPV, 10 dose(s) per vial, LIQUID (MDVP)*
- *JE, 5 dose(s) per vial, lyophilised (preventive campaign support, 2016)*
- *HPV vaccine, Bivalent, 2 dose(s) per vial, liquid (HPV demo project)*

Health systems strengthening support

- *Approval of a new tranche of HSS funding of $36.4 million for 2015-2019. The first tranche is $8.7 million for 2015.*

1.4. Brief description of joint appraisal process

During the Gavi mission to Nepal in September 2015, a consultative meeting was held to initiate the process of Gavi appraisal 2015. The meeting was participated by Dr. Raj, Senior Country Manager, Gavi; Dr. Jos, WHO representative to Nepal; Dr. Hendrikus, UNICEF health section chief; WHO-IPD team and UNICEF ROSA and Country Office team. The Gavi appraisal process is based on the Annual Performance Report 2014. The process includes rigorous consultation between WHO and UNICEF in the preparation of the joint appraisal, consultation with national immunization experts, Ministry of Health and Population and ICC members.

2. COUNTRY CONTEXT

2.1. Comment on the key contextual factors that directly affect the performance of Gavi grants.

Nepal is a land-locked country bordering with China in the North with the Himalayas, and India in South, East and West. The total population is 27.3 million with 662,285 live births (World Health Statistics, 2014). The neonatal mortality rate is 23 per 1000 live births, infant mortality rate is 33 per 1000 live births and under five mortality is 38 per 1000 live births (MICS 2014). Nepal is a low-income country with per capita GNI of US$ 730. Total expenditure on health is 6.1% of the GDP.

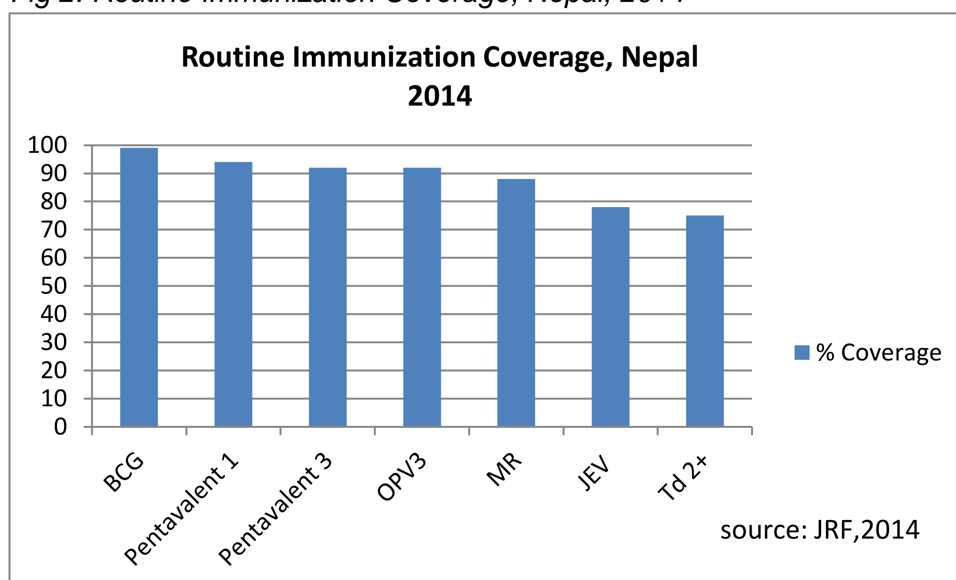
Topographically, Nepal can be divided into three ecological zones: mountains, hills and Terai. Administratively, the country is divided into 75 districts grouped in 14 zones, which are further grouped in five development regions. Department of Health Services (DoHS) under Ministry of Health and Population is responsible for the overall health sector. At central level, there are 6 Divisions (including Child Health Division which oversees the immunization sector), 5 Centres, and 8 central hospitals. At regional level under 5 regional health directorates are 3 regional hospitals, 3 sub-regional hospitals, 5 regional training centres, 5 regional medical stores and 1 regional TB centre and 10 zonal hospitals. At the district level, there are 78 district hospitals, 16 district public health offices and 59 district health offices. Below district level are 208 primary health care centres, 1559 health posts, and 2247 sub-health posts. All SHPs are being upgraded into HPs. In the community, there are a total of 49,084 FCHVs (female community health volunteers) serving as the basic unit of public health. There are 12,618 PHC/ORC and 16,840 EPI outreach clinics. The immunization services are given in fixed sessions (in the health facilities), outreach clinics (in the community) as well as in mobile clinics where needed. **As Nepal is going into federal reform with proposed 7 federal states after promulgation of new constitution, health-system organogram structure will be changed in the near future.**

The National Immunization Program was initiated in 1979 in three districts with only BCG and DPT and was rapidly expanded to include all 75 districts with all six recommended antigens (BCG; DTP; OPV; and measles) by 1988. In 2003, the monovalent hepatitis B vaccine was introduced, which was later administered as a single tetravalent (DPT-HepB) injection. In 2009,

vaccination against *Haemophilus influenzae* type B (Hib) was introduced in phases in the country as a pentavalent (DPT-HepB-Hib). In 2009, the Japanese encephalitis (JE) vaccine was introduced into the routine immunization program in 16 JE-endemic districts following JE mass vaccination campaigns. Furthermore, all women of childbearing age are given five doses of TT vaccine (Td since 2014) during their reproductive life. All of the vaccines in the routine immunization schedule are provided free of cost in all public health facilities in Nepal *(NDHS, 2011).* Among the recent new vaccines, IPV was introduced in 2014, and PCV in phase-wise manner in 2015. Measles-rubella second dose (MRSD) has been launched in September 2015. HPV demonstration project in two districts will be implemented in October 2015. JEV campaign is planned in 2016 in 44 districts followed by eventual introduction of the vaccine in the hill districts. Currently, JEV is only given in Terai districts (low-lands with hot climate). However, JE surveillance (incorporated in polio surveillance network since 2004) has shown that JE is endemic in hill districts as well. Other vaccines in the pipeline and reflected in the cMYP 2011-2016 include vaccine against rotavirus.

The graph below shows routine immunization vaccines coverage in 2014.

Fig 2. Routine Immunization Coverage, Nepal, 2014



In recent years, Nepal has successfully implemented an initiative for immunization known as “full immunization program”. Full immunization means that all children under one year of age within an administrative boundary have received all routine immunization vaccines. Mobilization of local resources, ownership, and leadership are the key aspects of the full immunization program. To declare any district or sub-district as a fully immunized region, it should assure that 100% of the eligible children in that area have received complete vaccination following guidelines endorsed by Ministry of Health and Population and Ministry of Federal Affairs and Local Development, Nepal. The full immunization program aims to reach every child through immunization services and reduce child morbidity and mortality associated with vaccine preventable diseases. Furthermore, besides increasing vaccination coverage, it addresses issues of social equity as every child, regardless of social aspect are meant to be fully immunized. As of 15 August 2015, 969 VDCs, 39 municipalities and 10 districts have been declared fully immunized in Nepal.

Furthermore, Nepal has piloted electronic immunization registration system (EIRS) in two districts (implemented in February 2015). Generic immunization registration system has been customized into Nepali context for piloting. The system seeks to improve limitations of the paper-based system. The electronic system will help in defaulter tracking, sending SMS reminder, full immunization tracking, as well as in automated HMIS report generation. Review

of EIRS will be conducted in November 2015 and scaled to 6 more districts (as reflected in the Annual Workplan/Red Book).

'Data management training' was given in 2014 to the EPI team of all 75 districts. The training focused on quality program-data (VPD surveillance and immunization) interpretation for monitoring purposes. In 2015, a package of the analysis tools will be disseminated to all districts for reference. Furthermore, in 2015/2016, GIS training to key districts for data visualization and analysis will be given.

In the two major earthquakes in Nepal in April and May 2015, 14 districts in Central and Western Region were severely affected. In these districts only one vaccine store was fully damaged (in Rasuwa district). This district vaccine store was moved to temporary structure and within a month was moved to a permanent structure. All regional vaccine stores are running in its full capacity. Only few outreach immunization sessions have been moved to fixed sessions due to damage of outreach session infrastructure in these districts. All other sessions are being conducted as usual. Furthermore, MR campaign was successfully conducted in these 14 highly earthquake-affected districts in August 2015.

In 2014, out of US$ 12.9 million total expenditure on immunization (see Table 1 below), US$ 6.4 million (49.5%) was borne by the government, US$ 4.8 million (37%) was supported by Gavi, US$ 844,149 (6.5%) was supported by UNICEF and US$ 903,554 (7%) was supported by WHO.

Table 1. Overall Expenditure and Financing for immunization from all sources (Government and donors) in US$

Expenditure by category	**Expenditure Year 2014**	**Source of funding**						
		Country	**Gavi**	**UNICEF**	**WHO**	**N/A**	**N/A**	**N/A**
Traditional Vaccines*	1,713,818	1,713,818	0	0	0	0	0	0
New and underused Vaccines**	4,807,308	439,297	4,368,011	0	0	0	0	0
Injection supplies (both AD syringes and syringes other than ADs)	85,114	85,114	0	0	0	0	0	0
Cold Chain equipment	894,668	844,748	49,920	0	0	0	0	0
Personnel	0	0	0	0	0	0	0	0
Other routine recurrent costs	3,350,648	2,692,202	404,353	69,389	184,704	0	0	0
Other Capital Costs	0	0	0	0	0	0	0	0
Campaigns costs	2,147,564	653,954	0	774,760	718,850	0	0	0
N/A		0	0	0	0	0	0	0
Total Expenditures for Immunisation	12,999,120							
Total Government Health		6,429,133	4,822,284	844,149	903,554	0	0	0

In Nepal, **"Immunization Act, 2071"** has been formulated and is in the final stage of parliamentary endorsement. The act addresses the areas of health staff responsibility to

provide immunization services and sustainable financing for immunization program through the establishment of immunization trust fund.

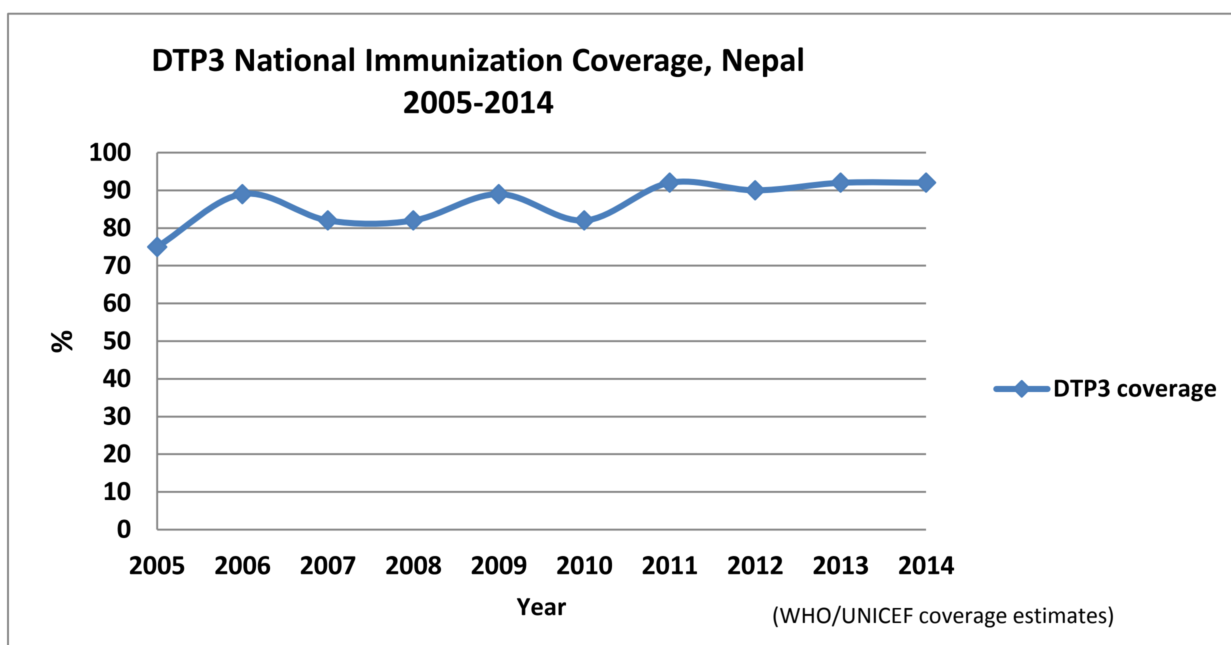
3. GRANT PERFORMANCE, CHALLENGES AND RENEWAL REQUESTS

3.1. New and underused vaccine support

3.1.1. Grant performance and challenges

Immunization coverage

Nepal has received NVS support for pentavalent vaccine (DTP-HepB-Hib) since 2009. Previously, support was received for Hep B monovalent vaccine (2002-2004) and tetravalent (DTP-HepB) vaccine (2005-2007).The pentavalent coverage has been at or above 90% since 2011 (*see figure below*). This is a major improvement since 2005 when the DTP3 coverage was 75%. In 2014, 65 out of 75 districts (87%) had >80% coverage for DTP-HepB-Hib3. The coverage of DTP1 was 94% whereas the coverage of DTP3 was 92% (JRF, 2014) showing only slight drop-out. Only two (3%) districts reported >10% drop-out. In 2013, the vaccine wastage rate for pentavalent vaccines was 20%, which was lower than for BCG (80%), OPV (23%), MCV (65%), and TT (34%).



Immunization inequities

Nepal MICS 2014 shows that 84.5% of children received all vaccinations in the routine immunization. NDHS 2011 shows that boys are slightly more likely to be fully immunized than girls (88.2% vs. 85.7%), whereas Nepal MICS 2014 shows that 86.3% of boys are fully immunized compared to 82.4% of girls. For DTP3, the coverage for male and female is 89.8% and 86.5% respectively (NMICS, 2014). As per NDHS 2011, urban-rural difference in full immunization coverage is small (90% vs. 86.6%, NDHS 2011). However, NMICS 2014 shows that the difference is large (92.7% vs. 83.4%). For DTP3, urban-rural coverage is 95.8% vs. 87.2%.

Factors adversely affecting full immunization coverage are increasing birth order (birth order 1: 91.1%, birth order 6+: 59.6%, NDHS 2011), mothers with no education (no education: 78.1%, higher education: 92.4.%, NDHS 2011; no education: 80.6%, higher education: 89%, NMICS 2014), and decreasing wealth quintile (poorest: 84.5%, richest: 95.7%, NDHS 2011; poorest: 83.1%, richest: 92.7%, NMICS 2014). There are differences in full immunization coverage in ecological zones: Terai (85%), hill zone (90%), and mountain zone (88%) (NDHS 2011). Hill and mountain zones have relatively more fully immunized children compared to Terai despite geographical difficulties.

Implementation of new vaccines

IPV was introduced in the routine immunization on 18 September 2014 as planned. PCV was started in phase-wise manner in the country since 18 January 2015 and has covered all districts of Nepal by September 2015. MRSD was started in the routine immunization on 15 September 2015.

Surveillance systems (VPD and AEFI)

Nepal has a strong VPD surveillance system which was initially started as polio eradication network (PEN) in 1998 to conduct AFP surveillance for polio. Measles and neonatal tetanus surveillance were integrated to the AFP surveillance system in 2003, AES surveillance (for JE) in 2004, and congenital rubella syndrome (CRS) surveillance in 2014. Nepal has been conducting certification standard AFP surveillance. Every year, trainings on VPDs are given to health staff in every district to improve VPD surveillance and immunization. In 2010, national and international review of VPDs and EPI was conducted. In 2013, internal review of VPD surveillance was conducted. Internal review is also planned for 2015.

Injection safety policy was developed in Nepal in 2003. AEFI guidelines were also developed in 2003. AEFI surveillance was initiated from 31 sentinel sites in 2004 and expanded throughout the country in phase-wise manner. Trainings on AEFI surveillance were conducted in 2004 followed by refresher training in 2008. AEFI trainings were also incorporated in measles campaign (2004) and MR campaign (2012). Furthermore, AEFI trainings have been incorporated in all vaccine campaigns and new vaccine introductions. All serious AEFI are investigated by the AEFI committee. Since July 2014, all AEFI are recorded at health facility level in HMIS system, and analysis of AEFI is done and shared to AEFI committee through EPI section, Child Health Division, DoHS. In 2015, new version of AEFI guideline is being finalized.

Data quality compliance

HMIS data verification is conducted by Management Division every year at district level. Every year, Child Health Division conducts DQSA through Regional Health Directorate (RHD). In 2014, DQSA was conducted in 15 districts through RHD. CHD also conducts DQSA by itself in some districts through its Planning and Evaluation Section. District level DQSA is also conducted by D(P)HO to validate data reported. In 2014, CHD conducted DQSA in three districts, and concluded that data/information is still in low priority at community level and health facility level. Furthermore, on-site coaching, supervision, and monitoring of child health program should be necessary not only for data quality but also for program enhancement. There should be sufficient feedback mechanisms from higher to lower level of health system to improve data quality.

Cold chain and EVM

The cold chain volume required for Nepal is sufficient for introduction of IPV and PCV vaccines. For total children targeted for immunization in 2015, cold chain volume required is 25.84 m^3. The current cold chain volume at the central vaccine store level is 55.74 m^3, at regional vaccine store level is 55.9 m^3, and 20.9 m^3 at district level. This indicates the existing cold chain storage volume is sufficient for the current immunization schedule. However, Nepal will be introducing HPV vaccine and rotavirus vaccine in the future and need additional cold chain volume. Therefore, cold chain expansion and revitalization is required for Nepal. Keeping this in view, and to phase out CFC equipment, replace equipment older than 10 years, and to ensure

disaster resilience in all districts, Child Health Division and Logistics Management Division has developed 'Cold Chain Replacement Plan 2015/2016'.

EVM assessment was conducted in October/November 2014 after previous EVM in 2011. The assessment has pointed out that at all levels of the supply chain, vaccine and supplies distribution needs improvement. Maintenance and repair, stock management and management information system and support functions also need improvement. Vaccine Management practices was in the range of 72-78% except at lowest delivery level (district level), storage capacity (E3) is at or above 70% at all levels. EVM assessment recommends that efforts be increased and oriented towards comprehensive approach for improvement of its immunization supply chain systems. Compared to EVM assessment in 2011, the current assessment has shown improvement in vaccine management at all levels.

Financial performance and challenges
Total budget allocated for fiscal year 2070/71 (2013/14) under Gavi cash grant (IVS and NVS) was US$ 454273.2; the total expenditure was US$ 393914.8 (exchange rate US $ 1=100.16). The remaining budget will be carried over to next fiscal year.

Challenges

- For each fiscal year's government workplan and budget, the activities need to be committed by March of English calendar. Therefore, any approval of the Gavi's support to Nepal after March of English calendar cannot be reflected in the government's annual workplan and budget. HPV demonstration project, which was planned to start in May 2015, was postponed to October/November 2015 due to earthquake in April and thereafter reflection of its operational budget in new fiscal year July 2015-July 2016.
- Due to lengthy procurement process, some planned equipment, vehicle or other logistics items may not be procured in time.
- Frequent staff transfers may occur within the government system.
- Audit reports for central level are available with donor-wise audit reports. District level audit report may not be available/hard to obtain for all districts. Moreover, in district level audit reports, expenditure code wise report is mentioned. At district level, donor-wise auditing is not done for all districts.
  (All fund utilized by Nepal government is audited by external auditors. There is no any major comment by the auditors for Gavi funded activities)

3.1.2. NVS renewal request / Future plans and priorities

HMIS (Health Management Information System) section, under Management Division, DoHS, MoHP, provides estimation of target populations based on the evidence provided by Central Bureau of Statistics, Nepal.

The main objectives and priorities actions for 2015 to 2016 are:

1. Achieve high routine immunization coverage for all antigens (at least 90% in each districts)
2. Develop switch plan from tOPV to bOPV and implement plan in April 2016
3. Conduct Polio campaign in high risk districts
4. Expand and strengthen VPD surveillance
5. Conduct MR campaign with high coverage rate
6. Introduce new vaccines: MRSD, HPV demonstration project and expand PCV throughout the country.
7. Develop cMYP (2016-2021)
8. Conduct JE campaign in 44 high risk districts followed by introduction into RI
9. Develop innovative activities: electronic registration, full immunization declaration, use of communication and media, establish health baby clinics
10. Conduct operational researches

11. Conduct data quality assessments

3.2. Health systems strengthening (HSS) support

3.2.1. Grant performance and challenges

The Gavi HSS grant 2010-2014, follows the pool funding mechanism for financing of the health sector. The sector wide approach established in 2004, is a partnership between the donors and Ministry of Health and Population for health system strengthening, which is based on Nepal Health Sector Program (NHSP). The NHSP is jointly agreed by the partners and the Ministry for implementation of the health sector program and finance the sector. The financing of the health sector by the donors (World Bank, DfID, KfW, Gavi, and AUSAID) is termed as pool funding. Other partners of the sectors such as WHO, UNICEF, UNFPA, UNAIDS, GIZ are the non-pool funding partners. In Nepal, the second phase of sector program is being implemented – Nepal Health Sector Programme 2 (NHSP-2, 2010-2015). On an annual basis, the performance of the implementation of the Nepal Health Sector Program is being reviewed jointly by the partners. The annual performance review includes improvement in service delivery, public financial management, procurement and supply chain management and human resource for health. The performance review is based on the result framework developed for the NHSP and the target set for the sectoral areas.

The progress made for 2014 against the 2015 NHSP-2 result framework is based on the monitoring information from Health Management Information System (HMIS), Nepal Multiple Indicator Cluster Survey (MICS-2014), Service Tracking Survey 2013 (STS-2013), and Health Facility Survey 2014 (FARHCS-2014).

Programmatic performance and challenges

Achievements of targets and of intermediate results, and feasibility of targets
Achievement of targets and of intermediate results of NHSP-2 as reflected in the GAVI HSS proposal
The target goal set for the under-five mortality rate to reach 38 per thousand live birth has been met. In terms of the target for infant mortality to reach 32 per thousand live births, progress has been made. The target set for reducing neonatal mortality has not been met and is off the track.

In terms of the progress in the purpose level indicators as mentioned in the result framework of NHSP-2, the coverage of children who are immunized against measles as per the target has been met (90% target versus 92.6% achievement). However, the target set for family planning, antenatal, intrapartum and postpartum care is off the track.

In terms of progress towards an "increase and equitable access to quality essential health care services", the proportion of population living within 30 minutes travel time to a health facility has not been adequate (34.9% achievement versus 80% target).

In terms of progress made in "improved health systems to achieve universal health coverage of essential health care services", the target set for institutional deliveries has been met. However, the target set for children with diarrhea treated with zinc and ORS is off the track (18.2% achievement versus 40% target, MICS 2014).

Actual versus planned implementation based on the approved workplan
Gavi HSS follows the Joint Financial Agreement, where the reimbursement of the committed fund is made against the implementation/expenditure as per the agreed annual plan and

budget. For 2013/2014, the government completed 75% of activities as committed to in the annual workplan and budget. However, the completion of the activity as per the agreed workplan for Gavi has only been 34.4%.

Implementation bottlenecks, corrective actions and lesson learned to improve future performance

The bottleneck for the Ministry of Health and Population for low absorption capacity for Gavi HSS grant which has been due to the delay in the approval and execution of the activity and budget related to immunization as well as a lack of the human resource capacity in financial management and budget planning.

For the 2015/16, the Ministry of Health and Population has planned to improve the early approval and execution of budget as well as train the finance team for improved financial management.

In terms of the progress made in the procurement and supply chain management for 2013/14 as per the AIDE-MEMOIRE, 2014 there has been allocation of budget for upgrading the cold chain system. However, only 69% of the planned procurement took place. The bottleneck for completion of the procurement has been mainly due to inadequate skilled and trained human resource for procurement and quality assurance. To improve the procurement capacity, a procurement reform plan to hire additional skilled human resource for procurement and supply chain is underway.

Compliance with data quality and survey requirements

To improve the data quality for better planning, a data quality assurance was conducted by the Management Division, where in the data audit was conducted in districts where the data quality (reporting and accuracy) had been poor.

In 2014, a nationwide survey on the indicators related to health, water and sanitation, nutrition was conducted by Central Bureau of Statistics and UNICEF as Nepal Multiple Indicator Cluster Survey.

Programmatic capacity of entity managing HSS grant

The HSS grant implemented as the Nepal Health Sector Programme-2 (NHSP-2, 2010-2015) is being implemented to scale up the provision of free essential health care services towards achieving universal health service coverage. NHSP-2's Results Framework therefore includes indicators on the improved coverage of immunization. To monitor the targeting of inputs, NHSP-2's indicators are broken down by wealth quintiles, gender, age and ethnic group in NHSP-2's M&E framework. The essential health care services package, which accounts for more than 75% of MoHP's budget, has been expanded to address oral health, mental health, environmental health and hygiene, emergency and disaster management and the prevention and management of non-communicable diseases.

In 2014, the Gavi HSS grant as part of NHSP-2 has been utilized to improve the service accessibility with Comprehensive Emergency Obstetric Care site in 87 hospitals, basic emergency obstetric care site in 161 site and birthing centers in 1478. In 2014, 600 village development committee were declared fully immunized and 4 districts were declared fully immunized. There were 198 more doctors recruited.

Financial Performance and challenges

Challenges in financial management of HSS grant

A number of challenges remain that need to be overcome for MoHP to institute a fully functioning public financial management system.

Challenges beyond MoHP's Direct Control- the public financial management (PFM) structures and functions are designed at the sector level (macro level), which caters to the needs of all sub-sectors including MoHP. This is one of the challenges for MoHP as it has to comply with

line item-based budgeting, which is not usually as flexible as performance- or output-based budgeting.

Reconciliation on central financial statements: Due to delayed information from the Ministry of Finance (MoF) on virements, MoHP faces difficulties in reconciling its central financial statements. This is a key obstacle in finalizing the financial reports including third (final) trimester financial monitoring reports (FMR).

Policy level challenges — Key policy level issues to be addressed are implementing the revised FMIP and the audit clearance and internal control guidelines, and resolving issues related to direct budget execution by EDPs.
Auditing — The government's devolution process doesn't require district treasury comptroller's offices (DTCOs) to conduct internal audits for devolved districts, recommending instead that internal audits are carried out by independent auditors and copied to DTCOs. However, DoHS does not have sufficient staff capacity to follow up on the many internal and external audits in a timely way.

Linking Transaction Accounting and Budget Control System (TABUCS) with other MISs — it would be beneficial to link TABUCS with other relevant management information systems. To do this will require overcoming the following challenges:

- Getting access to the databases of outside entities or via an application programming interfaces (APIs).
- The too frequent change of codes in MISs.
- Network blockages while capturing the data
- Incomplete data entry.

Knowledge management — Audit queries against the audited amount increased to 13.8% of the total amount in the FY 2012/13 audit. The main reason for this was the insufficient knowledge of concerned officials on financial management compliance rules, the submission of the correct evidence for income.

Overall financial capacity of managing HSS grants
There have been considerable improvements to the Ministry of Health and Population's (MoHP's) financial management system over the first four years of the Nepal Health Sector Programme-2 (NHSP-2, 2010–2015). The main landmarks have been the implementation of the Financial Management Improvement Plan (FMIP, 2012/13–2015/16), the development and implementation of the Transaction Accounting and Budget Control System (TABUCS), the strengthening of MoHP's internal control system, and the development and introduction of systems to reduce the proportion of audit queries against audited expenditure.

3.2.2. Strategic focus of HSS grant

The strategic focus for HSS grant was-improved human resources for health, improved service delivery and improved physical asset management to sustain the coverage and equity for immunization.

Strengthened human resources for health
In terms of human resources for health, the HSS grant has planned for certification of 1,700 community-based health workers to manage the delivery of MCH and immunization services. During 2014, there has been a number of certified female community health volunteers (FCHVs) which includes both creating additional FCHV positions to reflect unmet need and the training of FCHVs in particular aspects of MNCH, such as management of newborn health. As such, in

2014, Nepal had achieved 92% of its NHSP-2 target of having 53,514 FCHVs by 2015 in the health sector workforce.

Improved service delivery
The second focus of the Gavi HSS grant relates to development of organization and management capacity for district health service delivery in 15 low performing districts and 25 municipalities. Whilst there are a range of indicators reported against in the JAR that related to improved service delivery (e.g. number of HPs per 5,000 population, share of health posts with birthing centers, share of public hospitals with infrastructure in line with GoN standards, etc.) . The 2014 JAR shows progress of Basic Emergency Obstetric and Neonatal care (BEONC).

Improved physical assets and logistics management
The third objective of Gavi's HSS support to Nepal was to ensure that all 75 districts acquire essential logistics management facilities. The Effective Vaccine Management Assessment Report 2014 highlights that there has be improvement in the cold storage, transport capacity, stock management and adherence to vaccine management policy from that of the EVM assessment 2011 at all level. Similarly, improvement has been witnessed at the lowest delivery point (district level) for maintenance, stock management and adherence to vaccine management policy.

3.2.3. Request for a new tranche, no-cost extension, re-allocation or reprogramming of HSS funding / Future HSS application plans

In January 2015, Government of Nepal had applied for HSS funding for five years. Gavi had approved the funding support to Nepal in July 2015 with an aim to increase and sustain the immunization coverage addressing the health system barriers. The HSS cash support will be split into two payments: the programme payment (based on implementation of the approved HSS grant) and the performance based payment (based on improvement in immunization outcomes). The country will receive 100% payment of the approved ceiling in the first year i.e the programme cycle. After the first year, country will receive 80% of the programme budget based on the implementation of the grant and additional payments will be made based on the performance of the immunization outcome indicators. The programme budget of Gavi HSS funding will be to support the implementation of Nepal Health Sector Programme 2015-2020. The Gavi HSS programme funding will be based on achievement of disbursement linked indicators agreed with the Ministry of Health and Population.
Following are the three key disbursement linked indicators for Gavi HSS programme funding focusing on three major areas (improved procurement and supply chain management, improved equitable access to immunization and improved financial expenditure in immunization)

1. EVM scores for any two criteria at all level reach 80% in every two years
2. 100 new VDCs are fully immunized each year
3. Pentavalent coverage at least 90% in lowest wealth quintile (NDHS/MICS)

The EVM assessment will be conducted every year to assess the improvement in the effective vaccine management

Gavi has provided approval of HSS funding of $36.4 million for 2015-2019. The first tranche is $8.7 million for 2015.

3.3. Graduation plan implementation *(if relevant)*

Not applicable

3.4. Financial management of all cash grants

For all the GAVI grant support either through the new and underutilized vaccine support or HSS, the fund is managed by Finance Control Section, Ministry of Health and Population. For the introduction grant for new and underused vaccine, the budget is utilized by Child Health Division for the implementation roll out of the new vaccines, while the management of HSS grant is done as per the pool funding joint financial agreement.

3.5. Recommended actions

In order to improve the use of HSS and new vaccine introduction grant for better health sector performance, the support will be required to improve the timely availability of vaccines in public health facilities, improve equitable access to basic health care services and improve health expenditure management.

Actions	**Responsibility** (government, WHO, UNICEF, civil society organizations, others partners, GAVI secretariat)	Timeline	Potential financial resources needed and source of funding
A) Timely availability of vaccines in public health facilities			
• Enhance the institutional capacity for managing procurement	UNICEF/WHO	2016-2020	Technical expert to build the capacity on contract management of the staff
• Effective vaccine/cold chain equipment supply chain management system	UNICEF/WHO	2016-2020	Technical expert to build the capacity of supply chain management of the vaccine and commodity at center, regional and district level
B) Improved access and equity for disadvantaged population groups			
• Improve mechanism for evidence based planning for service delivery	UNICEF/WHO	2016-2018	Technical experts to conduct bottleneck analysis for low coverage of immunization at district level
• Community mobilization and participation for full immunization in low coverage area	WHO	2016-2020	Technical expert to build the capacity of the district public health office and Local development office on full immunization
• Citizens participation in health service delivery strengthened (local planning and accountability)	UNICEF		E-health expert
C) Improve health expenditure management			
• Improve the planning process and budget submission from Child	WHO	2016-2020	Technical expert to support the evidence based annual

Actions	Responsibility (government, WHO, UNICEF, civil society organizations, others partners, GAVI secretariat)	Timeline	Potential financial resources needed and source of funding
Health Division, Logistic Management Division and Management Division			budget planning for Ministry of Health and Population
• Improve the execution rate of the budget planned for Child Health Division, Logistic Management Division and Management Division	UNICEF	2016-2020	Technical expert to support the execution of annual budget planning for Ministry of Health and Population

4. TECHNICAL ASSISTANCE

Based on the review of the Nepal Health Sector Programme-2 mid-term review 2012, Joint Annual Review reports 2011-2014, Effective Vaccine Management Assessment 2014 and bottleneck analysis from the Nepal Health Sector Strategy 2015-2020, there has been four key areas of challenges for improved health system for better immunization outcomes.

First, there has been challenge in the availability of vaccines in the public health facilities, which is reflective of the need for improved procurement of the vaccines and supply chain system. Second, there has been challenge in the maintaining the potency of the vaccines from the point of arrival up to service delivery point. This challenge is reflective of the need to improve the effective vaccine management-cold chain system at each level. Third, there has been challenge in improving the coverage of immunization among disadvantaged population.

The technical assistance is required to improve the sectoral performance in procurement and supply chain management, improve cold chain and effective vaccine management and improve the coverage of immunization in dis-advantaged population as well as to sustain achieved immunization coverage.

4.1 Current areas of activities and agency responsibilities

New vaccine introductions
WHO provides technical lead to develop GAVI applications for new vaccine introduction, health system strengthening support, and to develop GAVI annual progress reports. WHO also provides technical support to the Nepal National Committee on Immunization Practices (NCIP) and to AEFI Committee of Nepal.

VPD surveillance
WHO is responsible for conducting and giving technical support to the government for surveillance of vaccine preventable diseases (polio, measles and rubella, Japanese encephalitis, and neonatal tetanus). This includes maintaining certification level standard of surveillance for achievement of polio eradication, measles elimination and rubella control, Japanese encephalitis control, and sustaining neonatal tetanus elimination. VPD surveillance and immunization at peripheral level is supported through 11 field offices and 15 surveillance medical officers network covering all districts of Nepal. At central level, WHO supports technical coordination and administrative supervision to achieve goal of Polio eradication in Nepal and to achieve the goals of measles elimination and rubella control.

Immunization support
WHO gives technical support to the government in routine immunization (EPI), vaccination campaigns and in vaccine demonstration projects. WHO provides technical assistance in planning and implementation of supplementary immunization activities (SIAs) including NIDs, SNIDs, and mop-up immunization. Assistance is given in the development of detailed logistic plans, guidelines, budgets, maps and other necessary materials for implementation of high quality routine immunization and SIAs. It evaluates national, regional and district aspects of routine and supplementary immunization coverage. Assistance is given in improving cold chain system and implementation of EVSM recommendation. WHO provides technical cooperation for strengthening all aspects of child hood immunization in Nepal, in consultation with counterparts in the Ministry of Health and Population, including EPI (CHD), LMD and NHEICC. WHO provides support in carrying out operational researches in areas of immunization and surveillance. To enhance immunization data management, WHO provides geospatial mapping and analysis, including development, maintenance and update of the geodatabase. Coordination is done with CHD/NIP and HMIS for the development of applications that facilitate functionality and usability of immunization and surveillance information systems. Furthermore, WHO also gives technical assistance for investigation and management of disease outbreaks, epidemics and gives health support in disasters.

Full immunization and appreciative inquiry workshops
WHO facilitates national and sub-national level Appreciative Inquiry and Transformational Technology workshops aimed at achieving full immunization goal by 2017 in Nepal. It conducts and facilitates national review and introduce full immunization program among various districts. WHO provides technical support to Child Health Division to develop annual plan of work, implement and ensure quality of full immunization program and provides technical support to Ministry of Federal Affair and Local Development to harmonize and mainstream the full immunization program in local development planning process. WHO coordinates, communicates, plans and facilitates full immunization program among other partners and collaborates to achieve the full immunization goal.

Procurement and supply management
Currently UNICEF has been responsible to provide support to the Ministry of Health and Population on the procurement and supply of the vaccine and cold chain equipment either GAVI funded or Government funded.

Effective Vaccine Management/cold chain system
UNICEF has been providing lead technical assistance in cold chain upgradation/replacement and auctioning on non-functional cold chain equipment. It has been building the capacity of the supply chain staff at central, regional and district level on effective vaccine management. UNICEF has been providing lead support to conduct the Effective Vaccine Management Assessment

Community Mobilization and Annual Planning and Budgeting
UNICEF has been providing financial and technical support during the routine immunization and national immunization days for community mobilization. As a technical support for the Ministry of Health and Population, Policy Planning Division and International Cooperation, support has been provided in Annual Workplan and Budget preparation based on the bottlenecks in MNCH.

4.2 Future needs

1) Given the context of new constitution in place which envisage seven federal states with three tier of governance, in order to sustain and accelerate the coverage and equity of immunization in the federal states, support will be required to develop the capacity of the federal government on immunization program. This capacity includes VPD surveillance, AEFI surveillance, routine immunization and national immunization

campaign and full immunization VDC declarations. The technical assistance will be augmented by an EPI officer, cold chain and supply chain officer, and an EPI assistant in each federal state.

2) Technical assistance for improved availability of vaccines in public health facility
Enhance the institutional capacity for management of procurement for vaccine
Improve the vaccine/cold chain equipment supply chain management system
Introduction of technology based solution for improving information management (real time web-based LMIS and cold-chain inventory system)

3) Technical assistance for effective vaccine management from the central level to service delivery point
Enhance the institutional capacity for effective vaccine management and cold chain system
    - Upgradation of the central and regional cold rooms
    - Upgradation of the cold chain equipment to make it disaster resilient
    - Preventive and periodic maintenance of the cold chain equipment
    - Periodic auctioning of non-functional cold chain equipment
    - Electronic temperature recording and reporting system of cold chain equipment
    - Conduction of the Effective Vaccine Management Assessment on an annual basis
    -

4) Technical assistance for improving coverage and equity in disadvantaged population
Support to conduct bottleneck analysis in poor performing districts on the barriers for uptake of immunization services and support to develop the annual budget and plan for Ministry of Health and Population to improve the equity and coverage of service.
Support to conduct community mobilization planning and implementation of full immunization in the poor performing districts.

(refer to Annex F & G)

5. ENDORSEMENT BY ICC, HSCC OR EQUIVALENT & ADDITIONAL COMMENTS

(MAX. 1 PAGE)

Brief description of how the joint appraisal was endorsed by the relevant national coordination mechanism:
Issues raised during debrief of joint appraisal findings to national coordination mechanism:
Any additional comments from • Ministry of Health: • Partners: • Gavi Senior Country Manager:

6. ANNEXES

[Please include the following Annexes when submitting the report, and any others as necessary]

- **Annex A. Key data** (this will be provided by the Gavi Secretariat)

- **Annex B. Status of implementation of the key actions from the last joint appraisal and any additional High Level Review Panel (HLRP) recommendations**

Key actions from the last appraisal or additional HLRP recommendations	Current status of implementation

- **Annex C. Description of joint appraisal process** (e.g. team composition, how information was gathered, how discussions were held)

- **Annex D1. HSS grant overview**

<table>
<tr><th colspan="8">General information on the HSS grant</th></tr>
<tr><td colspan="3">1.1 HSS grant approval date</td><td colspan="5">14 February 2008 (HSS1)</td></tr>
<tr><td colspan="3">1.2 Date of reprogramming approved by IRC, if any</td><td colspan="5"></td></tr>
<tr><td colspan="3">1.3 Total grant amount (US$)</td><td colspan="5">8,667,000</td></tr>
<tr><td colspan="3">1.4 Grant duration</td><td colspan="5">2 years (2008/9 – 2009/10)</td></tr>
<tr><td colspan="3">1.5 Implementation year</td><td colspan="5">July 2008 – July 2012</td></tr>
<tr><td>(US$ in million)</td><td>2008</td><td>2009</td><td>2010</td><td>2011</td><td>2012</td><td>2013</td><td>2014</td></tr>
<tr><td>1.6 Grant approved as per Decision Letter</td><td>8.6</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>1.7 Disbursement of tranches</td><td></td><td>6.1</td><td>2.5</td><td></td><td></td><td></td><td></td></tr>
<tr><td>1.8 Annual expenditure</td><td></td><td>4.4 (@ 64.2)</td><td>2.7 (@72.59)</td><td>1.1 (@72.59)</td><td>0.1 (@72.59)</td><td></td><td></td></tr>
<tr><td colspan="3">1.9 Delays in implementation (yes/no), with reasons</td><td colspan="5"></td></tr>
<tr><td colspan="3">1.10 Previous HSS grants (duration and amount approved)</td><td colspan="5"></td></tr>
</table>

1.11 List HSS grant objectives
Objective 1: Community-based health workers are certified as having their skills formally updated to ensure the delivery of MCH and immunization services to achieve coverage targets by 2010. Objective 2: Rapidly expand CB-IMCI to the remaining 11 districts to achieve 100% national coverage by 2010. Objective 3: Implement pilot programs on district microplanning in 10 districts and urban maternal and child health in 5 municipalities by 2010. Objective 4: Health information management and logistics improved in 75 districts by filling identified infrastructure, logistics and communication gaps by 2010.
1.12 Amount and scope of reprogramming (if relevant)

- **Annex D2. HSS grant overview**

General information on the HSS grant							
1.13 HSS grant approval date			20 May 2010 (HSS2)				
1.14 Date of reprogramming approved by IRC, if any							
1.15 Total grant amount (US$)			14,540,690				
1.16 Grant duration			3 years (2010/11 – 2013/14)				
1.17 Implementation year			July, 2010 to July 2014				
(US$ in million)	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**
1.18 Grant approved as per Decision Letter			14.5				
1.19 Disbursement of tranches			4.6	4.8	4.9		
1.20 Annual expenditure			Pool fund				
1.21 Delays in implementation (yes/no), with reasons							
1.22 Previous HSS grants (duration and amount approved)			HSS 1, US$ 8,667,000, 2 years (2008/9-2009/10)				
1.23 List HSS grant objectives							
Objective 1: to certify 1700 community-based health workers to manage delivery of MCH and immunization services to manage grass-root level health institutions by 2012. Objective 2: to develop organization and management capacity for district health service delivery in 15 low performing districts and 25 municipalities by 2012 Objective 3: to ensure all 75 districts acquire essential logistics management facilities by 2012							

1.24 Amount and scope of reprogramming (if relevant)

- **Annex D3. HSS grant overview**

General information on the HSS grant							
1.25 HSS grant approval date			13 July 2015 (HSS3)				
1.26 Date of reprogramming approved by IRC, if any							
1.27 Total grant amount (US$)			36,540,000				
1.28 Grant duration			2015 - 2019				
1.29 Implementation year			July 2015-July 2019				
(US$ in million)	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**
1.30 Grant approved as per Decision Letter	NA						
1.31 Disbursement of tranches	NA						
1.32 Annual expenditure	NA						
1.33 Delays in implementation (yes/no), with reasons							
1.34 Previous HSS grants (duration and amount approved)			HSS1, US$ 8,667,000 for 2 years (2008/9- 2009/10) HSS2, US$ 14,540,690 for 3 years (2010/11-2012/13)				

1.35 List HSS grant objectives
Objective 1: Improved quality of the MNCH, immunization and other health services by enhancing knowledge, skill and motivation of health workers and female community health volunteers to support in achieving UHC by 2019 Objective 2: Improved access to MNCH, immunization and other health services by enhancing organization and management capacity of local bodies and institutions by 2019 Objective 3: Improved use and quality of data for better planning, implementation, monitoring and evaluation of MNCH, immunization and other health services by strengthening the health information systems by 2019 Objective: 4: To declare full immunization in 2,000 VDCs and 50 municipalities by 2019 through empowerment and mobilization of local community and resources Objective 5: All districts have essential cold chain and logistics management facilities to deliver MNCH, immunization and other health services by 2019

1.36 Amount and scope of reprogramming (if relevant)

- **Annex E. Best practices (OPTIONAL)**

- **Annex F.**

Priority areas for technical assistance to support immunization program of Government of Nepal

Health workforce for TA through WHO
Estimated Immunization Human Resource (SSA; full time) Cost (as per UN salary scale 2014)

S.N.	Designation	Level/ Step	Total Annual SSA Cost in USD @ 105.7911 exchange rate	Areas of work	Outcome
1	New Vaccine Officer	NO - B/1	25,000	Provide technical support to Nepal National Committee on Immunization Practices (NCIP) and Nepal AEFI committee Support and develop GAVI applications for new vaccines introductions and develop GAVI APR. Provide technical assistance for new vaccines, routine immunization and supplementary immunizations. Provide support to VPD sentinel surveillance sites.	Increased technical capacity and support to the NCIP as an independent advisory committee to the DoHS, MoHP. Increased technical capacity and support to the AEFI committee for AEFI investigation, management and causality assessments. Improved technical support to the government for new vaccine introductions. Effective technical support and liaison for VPD surveillance.
2	Immunization Officer	NO - B/2	25,000	Provide technical coordination and administrative supervision to achieve goal of Polio eradication in Nepal Provide technical cooperation for strengthening all aspects of child hood immunization in Nepal.	Improved immunization processes and outcomes Achievement of immunization related goals of disease elimination and eradication.

3	Appreciative Inquiry Expert	Adhoc	38,000	Design and facilitate National and Sub-national level Appreciative Inquiry (AI) and Transformational Technology workshops Conduct and facilitate national review and introduce full immunization program among various district	Increased number of VDCs, municipalities and districts will initiate full immunization program through AI workshops Achievement of DLIs and addressing of inequities through full immunization.
4	Vaccine Management Officer	NO - A/1	20,000	Assist LMD and CHD in implementing the functions with regard to forecasting, procurement, storage, distribution and use of vaccines and immunization supplies Assist NRA in registration of new vaccines.	Improved vaccine logistics and cooperation regarding vaccine logistics and implementation.
5	GIS Officer	NO - B/1	25,000	Provide technical support for VPD surveillance and immunization related systems and data especially geographic information system data.	Improved data management, data visualization and data dissemination for effective information generation resulting in evidence-based action.
6	Research Officer	NO - A/1	20,000	Provide support in carrying out operational researches in areas of immunization and surveillance	Improved support and generation of evidence for improved vaccine logistics, vaccine introduction, and impact of immunization.
7	Hard to Reach Officer	NO - A/1	20,000	Support to facilitate district level AI based full immunization program to reach 75 districts. Conduct regular monitoring activities to accelerate full immunization program. Identify and initiate hard-to-reach area specific activities to address missed immunization needs.	Enhanced review, processes and outcomes of full immunization program Achievement of DLIs and addressing of inequities through full immunization More hard-to-reach children for immunization are reached and immunized

8	7 EPI Officers (1 for each new province)	NO - B/1	25,000 x 7 = 175,000	Overall technical support for EPI at the provincial level (7 provinces in new federal system)	Immunization management and technical support at new provincial level is improved to sustain and achieve quality immunization with increased coverage. Provincial level immunization inequities are addressed
9	7 EPI Assistants (1 for each new province)	KA - 4/1	10,000 x 7 = 70,000	Support to EPI officers at provincial level (7 provinces in new federal system)	Administrative support to the EPI officers for better execution of immunization related work
	Total		**USD 418,000**		

Program support for TA through WHO

S.N.	Program	Estimated Cost in USD @ 105.7911 exchange rate	Remarks
1	EIRS (Electronic immunization registration system) scale up to 5 districts	66,169	EIRS was initially piloted in two districts. This system seeks to improve limitation of paper-based system of immunization recording. Budget is required for scale up of the system to 5 more districts for training of health workers, and monitoring and supervision.
2	GIS (Geographic information system) training to regional and district immunization staff	14,179	To strengthen capacity of health staff in VPD and immunization data analysis and management, training will be given to familiarize with GIS tools/technologies. Budget is required for training materials preparation and printing, participants and resource person costs.
3	Immunization training	14,179	Budget is required to give immunization training on traditional and new vaccines to the vaccinators of selected private hospitals, medical colleges, and nursing homes in metropolitan and sub-metropolitan cities.
	Total	**USD 94,527**	

Total amount for TA through WHO- USD 477,527

- **Annex G.**

Technical assistance to Ministry of Health and Population to achieve the Disbursement linked indicator for GAVI HSS through UNICEF

	Designation	Area of work	Level of Effort	Disbursement linked indicator	Total Annual cost
1.	Procurement and supply chain specialist	To enhance the capacity of Logistic Management Division on procurement of vaccine. To support the vaccine supply from the center to district level To support Logistic Management Division on using technology based solution for improved vaccine supply and management	Full time Engagement	Improvement on EVM indicator-stock management- Improved stock status of the vaccine at all level	50000 USD
2.	Cold chain specialist	Enhance the institutional capacity for effective vaccine management and cold chain system • Upgradation of the central and regional cold rooms • Upgradation of the cold chain equipment to make it disaster resilient • Preventive and periodic maintenance of the cold chain equipment • Periodic auctioning of non-functional cold chain equipment • Electronic temperature recording and reporting system of cold chain equipment • Conduct annual EVM assessment on two yearly basis	Full time Engagement	Improvement on EVM indicator-EVM on storage, cold chain equipment and temperature maintenance	50000 USD
3.	Community mobilization specialist	Community mobilization planning and implementation of full immunization in the poor performing districts	Full time Engagement	Full immunization VDC	48000 USD
4.	Child Health Specialist	Coordinate with Ministry of Health and Population for budget planning and execution related to immunization and cold chain system strengthening	Part time engagement	Improved coverage in poorest wealth quintile	30000 USD
5.	Seven provincial	Enhance the capacity of the regional and district	Full time engagement	Improvement on EVM	25000 USD*7=175,000

	Cold Chain and supply chain officers	medical/vaccine store on vaccine management. Enhance the capacity on cold room/equipment maintenance		indicator at regional and district level: EVM on storage, cold chain equipment and temperature maintenance	
					353000 USD

Assessment of Effective Vaccine Management on an annual basis-60000 USD

Total amount for TA through UNICEF- USD 413,000