

Uganda Joint Appraisal report 2018

Country	Uganda
Full JA or JA update	<input checked="" type="checkbox"/> full JA <input type="checkbox"/> JA update
Date and location of Joint Appraisal meeting	26th – 29th November 2018, Kampala
Participants / affiliation¹	See Annex attached
Reporting period	Jan 2017 – October 2018
Fiscal period²	
Comprehensive Multi Year Plan (cMYP) duration	2016-2020
Gavi transition / co-financing group	Initial self-financing

1. RENEWAL AND EXTENSION REQUESTS

1.1. *Table 1: Renewal requests were submitted on the country portal*

Vaccine (NVS) renewal request (by 15 May)	Yes
HSS renewal request	N/A
CCEOP renewal request	N/A

1.2. *Table 2: Observations on vaccine request*

Population (UBOS projections 2018)	38,823,100				
Birth cohort	1,882,920				
Vaccine	DPT-Hib-HepB	PCV	HPV	IPV	Rotavirus
Population in the target age cohort	1,669,394	1,669,394	597,876	1,669,394	1,669,394
Target population to be vaccinated (first dose)	1,669,394	1,669,394	558,455	1,502,454	1,085,106
Target population to be vaccinated (last dose)	1,502,454	1,502,454	508,194	1,502,454	1,001,636
Implied coverage rate	90%	90%	85%	90%	60%
Last available WUENIC coverage rate	85%	81%	NA	61%	
Last available admin coverage rate	94%	90%	40%	70%	NA
Wastage rate	10%	5%	5%	5%	5%
Buffer	25%	25%	25%	25%	25%
DOR	10%	10%	9%	NA	7.6%
Stock reported	2,766,720	2,995,884	995,116	627,883	1,060,800

The population estimate is based on the projections by UBOS using the 2014 Census ([Table 2](#)). The population proportions used to estimate the different target populations are: birth cohort 4.85%, surviving infants 4.3%³ and girls aged 10 years 1.54%. To note is the birth cohort

¹ If taking too much space, the list of participants may also be provided as an annex.

² If the country reporting period deviates from the fiscal period, please provide a short explanation.

³ Birth cohort and surviving infant proportions have not changed since 2002 population census

and surviving infant proportions have not yet been changed by UBOS since 2002 population census, this may have implications in forecasting of vaccine needs.

The wastage rates are standard wastage rates for the different antigens as provided by WHO⁴. There difference between WUENIC and admin data for Penta and HPV was greater than 10% hence pointing to a data quality issue.

Renewal process and the national forecasting process follow different cycles. But it's important that the data that informs both processes remains the same for consistency

1.3. Table 3: Indicative interest to introduce new vaccines or request Health System Strengthening support from Gavi in the future⁵

Indicative interest to introduce new vaccines or request HSS support from Gavi	Programme	Expected application year	Expected introduction year
	Measles/Rubella campaign	2017	2019
	Measles/Rubella Introduction in Routine immunisation	2017	2019

2. RECENT CHANGES IN COUNTRY CONTEXT AND POTENTIAL RISKS FOR NEXT YEAR

Governance: In financial year (FY) 2017/2018, 6 new districts were created, raising the total number of districts in Uganda to 122 and in FY 2018/2019 additional 6 districts were established further increasing the current number of fully functioning districts from 122 to 128. It is planned that in FY 2019/2020, new 7 districts will be created. Smaller districts (units of administration function) bring services closer to the people, however they require additional resources such as: new health facilities are created and others are upgraded; new local administrative units are created (sub counties, parishes, villages). As a result, there is need for increased investments in terms of cold chain requirement, transport, human resources, supplies, infrastructure and capacity building.

Finances: The Uganda economy is affected by high inflation which ranged from 4.5% 2017/18 FY to 5% 2018/19⁶ which affects the program given that procurements such as vaccines are procured in USD yet budget are in local currencies and local purchases such as fuel are affected.

Population growth: Uganda continues to experience a fast population growth, with more children needing immunisation services each year. The national population growth rate is currently estimated to be 3% per annum⁷. Using Uganda Bureau of Statistics (UBOS) population projection, the population in 2017 was 37,673,800 individuals, in 2018 the population is 38,823,100 and projected to reach 40,006,700⁸ in 2019 ([Table 4](#)).

Table 4: Population projections 2017-2019⁹

Category	2017	2018	2019
Total population	37,673,800	38,823,100	40,006,700
Children Less than One year	1,619,973	1,669,393	1,720,288
Children Less than 5 years	7,723,129	7,958,736	8,201,374
Girls 10 years	580,177	597,876	616,103

⁴ WHO standard rates

⁵ Providing this information does not constitute any obligation for either the country or Gavi, it merely serves for information purposes.

⁶ Uganda National Budget Frame Work Paper FY 2018/19 – FY 2022/23 - Projected Annual Core Inflation

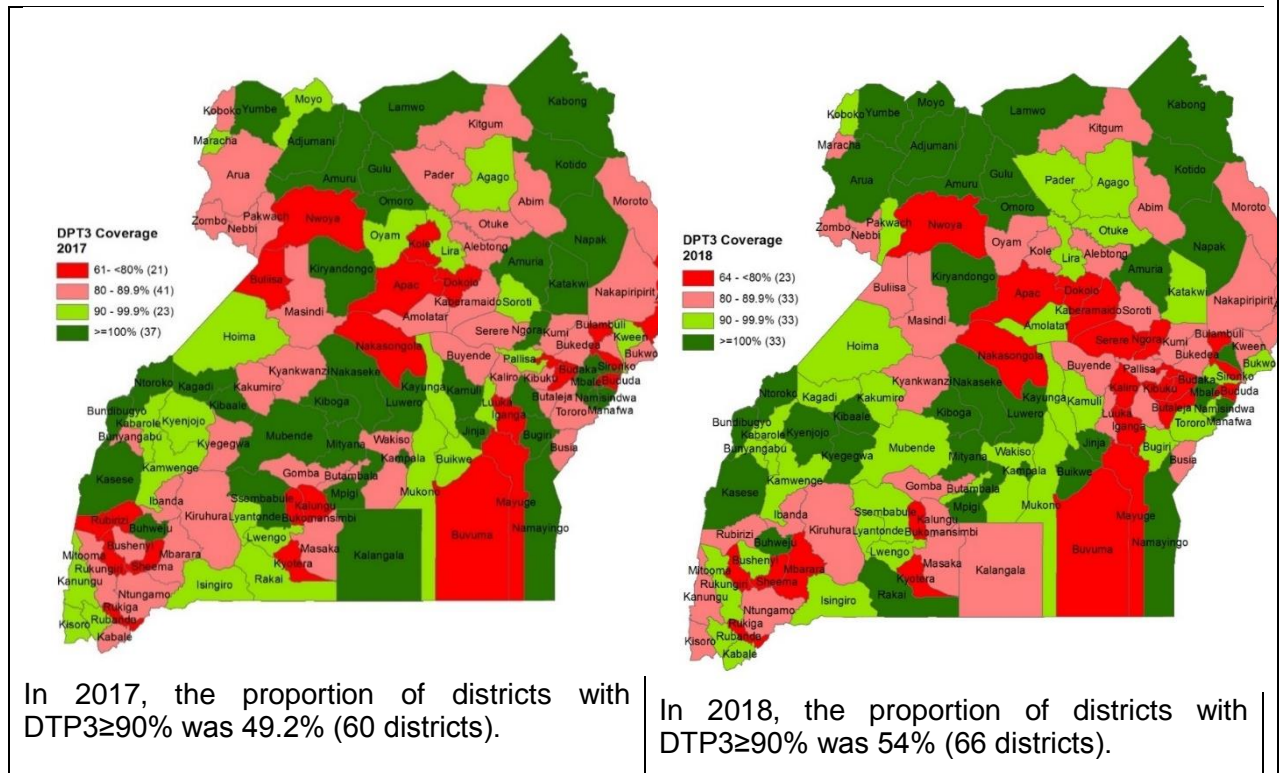
⁷ National Population and Housing Census 2014

⁸ District specific growth rates

⁹ UBOS, Population Projections 2015-2020

Immunisation coverage: There was an increase in districts achieving DPT3 greater than 90% in 2018 (54.1%) compared to 2017 (49.2%). There was a shift to improvement in districts in the Northern region, Western region and Central region of Uganda. Notably are districts in Eastern Uganda which showed minimal improvement in the immunisation coverage (*Figure 1*). The improvement is mainly due to implementation of Reach Every Community/Child with particular focus on recommendations of the coverage and Equity assessment.

Figure 1: DPT3 coverage 2017 and 2018 (annualized data)



Refugees and Asylum seekers updates:

Over one million refugees have fled to Uganda in the last two and a half years, making Uganda the third largest refugee-hosting country in the world after Turkey and Pakistan, with 1,154,352 refugees by October 2018¹⁰ (*Figure 2*). Wars, violence and persecution in the Horn of Africa and Great Lakes Region are the main drivers of forced displacement into Uganda, led by South Sudan’s conflict, insecurity and ethnic violence in the Democratic Republic of the Congo (DRC) and political instability and human rights violations in Burundi.

South Sudanese make up the largest refugee population in Uganda 785,105 people, followed by refugees from the DRC 284,265 and Burundi 33,657, Somalia 22,064, Rwanda 14,313 and others 14,949. More than 60 percent of Uganda’s refugees are under the age of 18 years and need protection services.

Twelve of Uganda’s 128 districts host most refugees. About 92% live in settlements alongside the local communities, mainly in West Nile (Adjumani, Arua, Koboko, Moyo and Yumbe) with smaller numbers in the North (Lamwo), Mid-West (Kiryandongo and Kikuube) and South West (Kyegegwa, Kamwenge and Isingiro). Urban centres are home to eight percent of the refugee population, especially in Kampala. These high number of refugees continue to exert pressure on the host districts’ health service delivery with reported outbreaks of Vaccine Preventable diseases, Viral Haemorrhagic Fevers (VHFs), stock outs of essential medicines, vaccines among others.

Gavi provided support through UNICEF, for the Multi-Antigen campaign aiming at reducing morbidity and mortality from vaccine preventable diseases among children under 5 years living in refugee settlements and hosting communities. Round 1 has already been implemented in 7 districts.

¹⁰ Refugees and asylum-seekers October 2018

Emerging outbreaks of Ebola.

The confirmed Ebola outbreak in DRC poses a threat to Uganda. The country has put in place an outbreak preparedness and response plan. Uganda has adopted the strategy to immunize the frontline health workers in high risk districts of western region. This has strained human and financial resources at national and district levels.

Proposed Government new allowance rates.

The Ministry of Public Service has proposed revised allowances for civil servants. If implemented this will have budgetary programme implementation implications.

Delayed implementation of approved grants

This is mainly due to due to the delay in accessing of Gavi funds of approved projects.

3. PERFORMANCE OF THE IMMUNISATION PROGRAMME

During the reporting period, UNEPI introduced Rotavirus vaccine in June 2018 and Tetanus/diphtheria (Td) replaced Tetanus Toxoid (TT) in the routine immunization programme. Currently UNEPI has 12 vaccines provided nationwide ([Table 5](#)).

Table 5: Target Immunisable diseases in Uganda

Disease	Vaccine
1. Tuberculosis	➤ BCG
2. Poliomyelitis	➤ OPV/IPV
3. Whooping cough	➤ Pertussis (DPT-HepB - Hib)
4. Diphtheria	➤ Diphtheria (DPT-HepB- Hib)
5. Tetanus	➤ Tetanus (DPT-HepB --Hib)
6. Measles	➤ Measles
7. Neonatal Tetanus	➤ Tetanus diphtheria (Td)
8. Hepatitis B infection	➤ Hepatitis B(DPT-HepB -Hib)
9. H. Influenzae infection	➤ Hib (DPT-HepB -Hib)
10. Cancer of cervix	➤ HPV vaccine
11. Pneumococcal infections	➤ pneumococcal conjugate vaccine
12. Rotavirus – Diarrhoea	➤ Rotavirus Vaccine

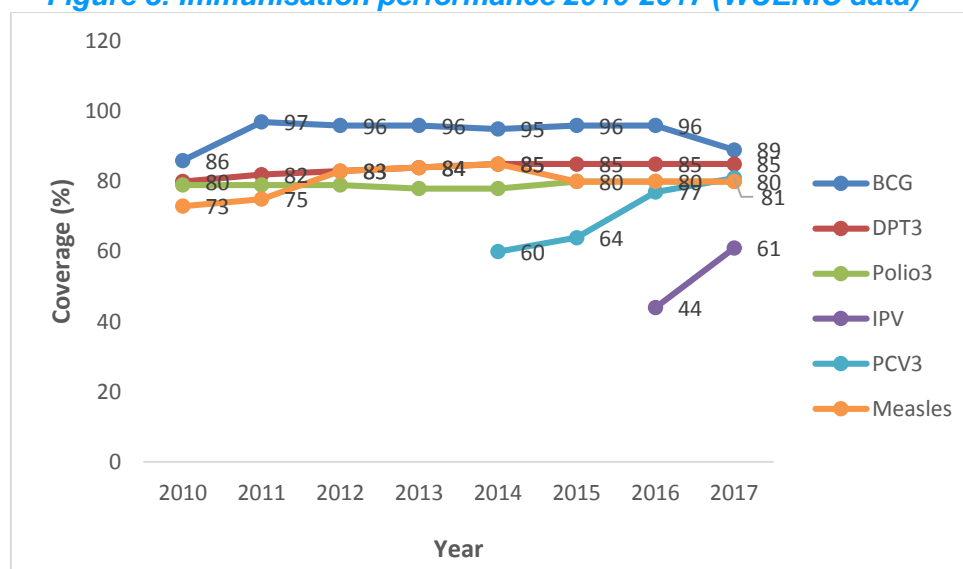
The data sources for the 2017 Joint Appraisal report for Uganda immunization coverage include:

- (i) Administrative data submitted by all districts through the District Health Information System (DHIS2), on a monthly basis
- (ii) WHO/UNICEF (WEUNIC) estimates of National Immunization Coverage for 2017

Trend of immunization performance WUENIC 2010-2017

Immunisation performance at the national level stagnated during the period 2014 – 2017 with coverage of BCG consistently remaining higher than all childhood antigens ([Figure 3](#)). There was a decline in BCG coverage in 2017 and of Measles coverage from 2015. This is attributable to irregular stock levels of the two antigens due to limited funding by Government of Uganda. The Polio coverage remained relatively stable over the years due to replenishment of regular supplies by the campaigns conducted in 2016 and 2017.

Figure 3: Immunisation performance 2010-2017 (WUENIC data)¹¹



The improvements 2010 - 2011 and sustenance of a stagnant trend thereafter have mainly been attributed to greater investment in human resources, strengthening of the cold chain system (i.e. through procurement of additional fridges - including Solar Direct Drive fridges), improvement in vaccine delivery processes, immunisation transport systems (increased vehicles and motorcycles) advocacy, communication and social mobilization.

According to WUENIC 2015-2017, DPT3 and MCV1 coverage was 85% and 80% respectively for three consecutive years and therefore did not meet the GVAP target of 90% and 95% respectively (Table 6).

Between 2016-2017, although there was a difference between the country's administrative figures and the WUENIC results, the difference declined markedly between 2016 and 2017 implying an improvement in consistency. While the average point difference in 2016 was 12, it was 6 in 2017 which is no more than 10 point difference in 2017.

Table 6: Comparison between WUENIC and Administration data

Antigen	2016		2017	
	WUENIC	Admin	WUENIC	Admin
BCG	96	94	89	85
DPT1	95	108	95	102
DPT3	85	101	85	94
OPV3	80	97	80	90
IPV	44	60	61	70
PCV3	77	93	81	90
Measles	80	90	80	83

In 2017 a total of 18 (16%) districts achieved a DPT3 coverage < 80%. This is below the GVAP target of every administrative unit attaining coverage of ≥ 80%. For the past four years, however, no district has recorded DPT3 coverage below 50%; this shows an improvement. However, there are districts that still achieve coverage of over 100%. In 2017, 36 (31%) achieved coverage over 100% with most of them attributing the performance to unreliable denominator data.

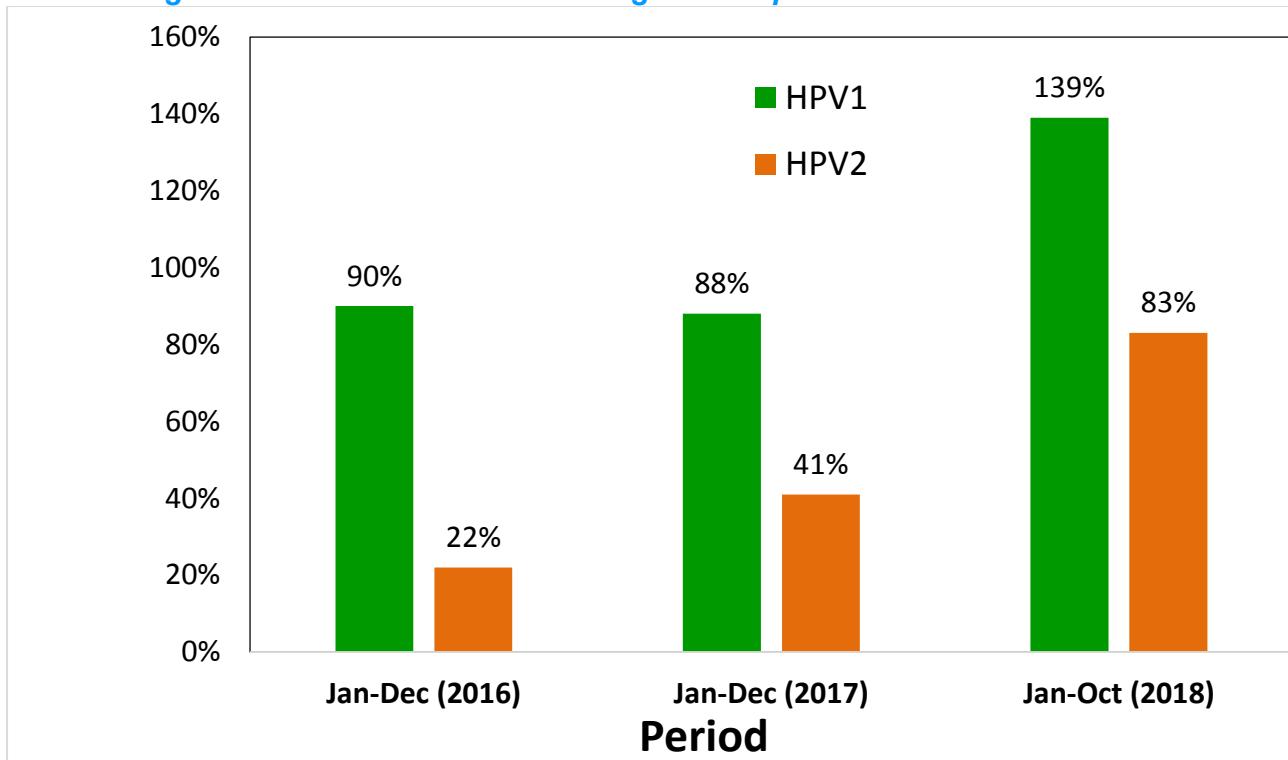
According to Administrative data (2017), national level utilization of immunization services as measured by the dropout rate (DoR) between first and third doses of DPT remained within acceptable levels. The DoR was 8% compared to 7% in 2016. In 2016, 40 (36%) districts had DoR outside acceptable ranges of 0 – 10% with 16 (14%) having negative DoR and 24 (21%) having DoR>10%. In 2017, 44 (36%) districts had DoR outside acceptable ranges of 0 – 10% with only 5

¹¹ To note: 2018 WUENIC data not yet available for comparison

(4%) having negative DoR and 39 (32%) having DoR>10%; showing a marked decrease in number of districts having negative DoR. The high number of districts with DoR>10% suggests multiple causes such as; missed opportunities, unsatisfactory quality of services and low quality of data. The districts with negative dropout rates may depict low data quality as a result of unrealistic denominators and numerators. Through the routine data quality desk review of DHIS2 data, the Programme identified and fixed data quality errors (over reporting) in some districts like Arua District.

Since 2015 when Human Papillomavirus (HPV) Vaccine was introduced into routine immunization schedule of Uganda, uptake of the first dose was good but the challenge has been the second dose. UNEPI and HDPs have supported interventions to improve HPV access and utilization and this is gradually yielding improvements as shown in *Figure 4*.

Figure 4: HPV immunization coverage for the period Jan 2016 to Oct 2018



The HPV Post Introduction Evaluation and support supervisions have identified a number of factors associated with low second dose coverage. The factors include:

1. Weak collaboration between the health and education departments at national and district levels
2. Non-clarity of mobilization messages at national and district levels e.g. targeting P4 girls as opposed to messages clearly targeting 10-year old girls
3. Unclear guidelines on allocation of PHC to immunization
4. Higher than actual denominator for some districts
5. Failure by health facilities to integrate schools into the routine immunization outreach schedules of the health facility
6. Health worker expectation for extra facilitation to reach schools as implemented during the HPV pre-introduction demonstration project

During the course of implementation in 2017 and 2018, the programme has worked with partners to address the likely factors responsible for low second dose coverage. In order to improve the coverage, MoH with support from development partners has developed an HPV coverage improvement plan to be financed by the reprogrammed fund balances from Men A campaign. The Programme with technical and financial support from UNICEF has developed an HPV communication plan whose implementation will commence in 2019.

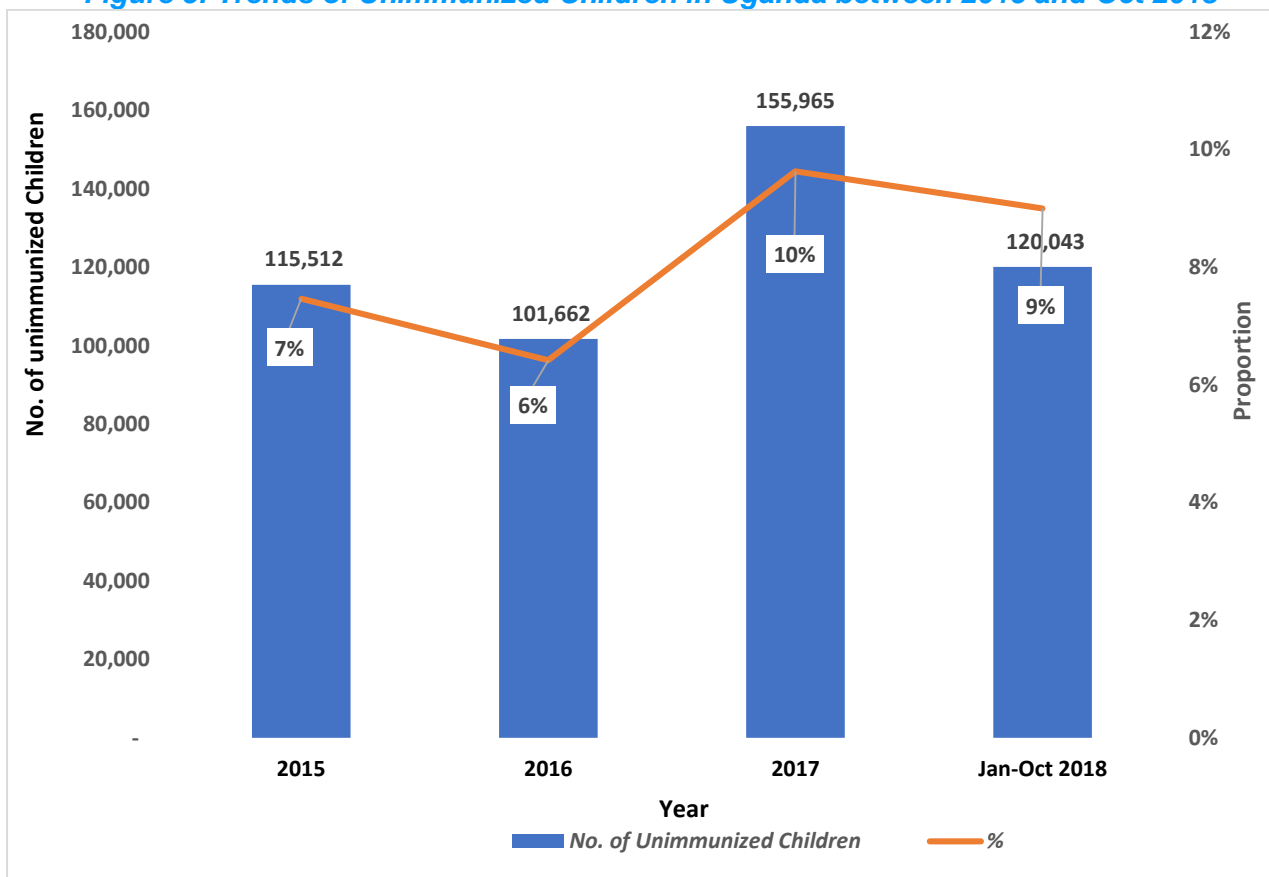
Over the past 2 years, Clinton Health Access Initiative (CHAI) has supported the programme to conduct stakeholder meetings with parents, teachers and health workers in 60 districts. The objective was to increase awareness of HPV demand and uptake of the second dose. Through these engagement meetings the program has reached over 2400 stakeholders including district education officers, district health officers, school nurses, health workers and community leaders.

CHAI and PATH have supported coordination meetings between the education and health sectors at the national level to ensure alignment on the delivery strategy ahead of the implementation of the Coverage Improvement Plan (CIP). As a result of these meetings, the program has optimized health facility catchment population and school mapping tools to improve the way health facilities plan for outreaches targeting girls in school and girls in the community. The program has also improved the message on HPV following consultations with school health stakeholders. The message now emphasizes the target group of 10- year old girls and dropping the communication on girls in P4.

Trends of Unimmunized Children in Uganda

The number of unimmunized children increased from 101,662 (6%) in 2016 to 155,965 (10%) (Figure 5) in 2017. This trend is associated with reduction of financial resources to support outreaches, vaccine shortage, weak leadership and management, weak monitoring and supervision of health facilities.

Figure 5: Trends of Unimmunized Children in Uganda between 2015 and Oct 2018



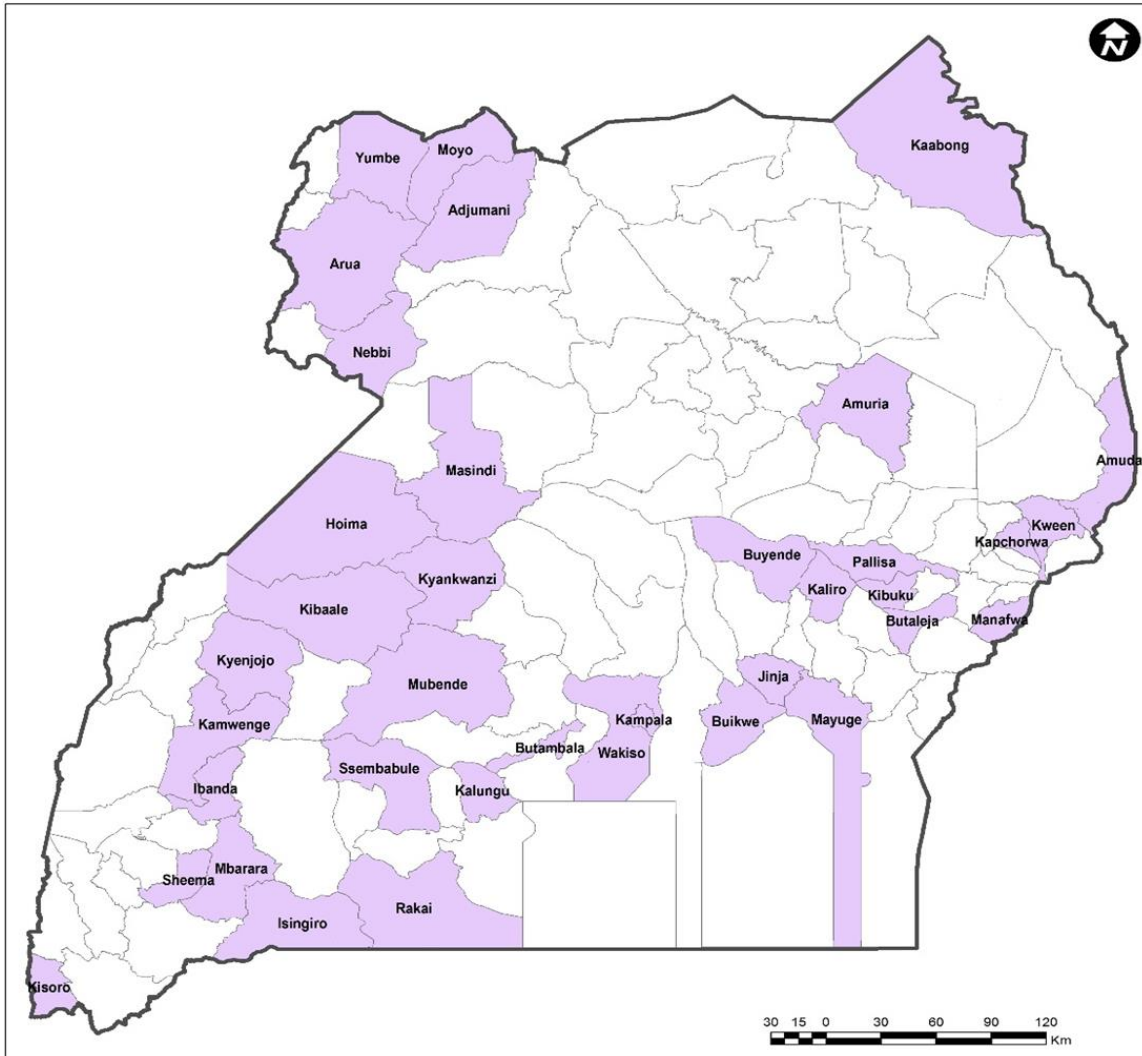
3.1. Coverage and equity of immunisation

Comparative analysis of EPI performance for January to July 2017 and January – July 2018: EPI performance of 37 identified districts with immunization inequities in 2016

The Uganda 2016 National equity assessment report identified 37 districts with immunisation inequities. The 37 districts (

Figure 6)with immunization inequities contributed 53% of the under immunised children (246,778) for DPT3 for the period 2013 to 2015; by region, Eastern had the largest number at 32%, followed by central region at 30%, South West 21% and Northern 17%¹².

Figure 6: Districts with immunisation inequities 2016



At implementation the five divisions of Kampala district were considered as districts making a total of 41 districts with immunisation inequities in 2016. Ministry of Health through Uganda National Expanded Program on Immunisation (UNEPI) with Health Development Partners (HDPs) planned interventions to reach the un-immunised and marginalised communities with immunisation services. From July 2017 to June 2018 through Gavi-PEF funding, a total of 41 districts identified with inequities to immunisation were supported by HDPs to reach the unimmunised in marginalised communities and underserved areas (Table 7).

Table 7: Districts identified with inequities in 2016

Amuria, Buikwe, Butaleja, Buyende, Hoima, Jinja, Kaliro, Kamwenge, Kapchorwa, Kibaale, Kibuku, Kisoro, Kween, Kyankwanzi, Kyenjojo, Manafwa, Masindi, Mayuge, Mubende, Palisa, Wakiso, Adjumani, Amudat, Arua, Butambala, Ibanda, Isingiro, Kaabong, Kalungu, Kampala Central,

¹² Uganda National Equity assessment 2016

Kampala Kawempe, Kampala Makindye, Kampala Nakawa, Kampala Rubaga, Mbarara, Moyo, Nebbi, Rakai, Sembabule, Sheema, Yumbe

Immunisation coverage and equity implementation

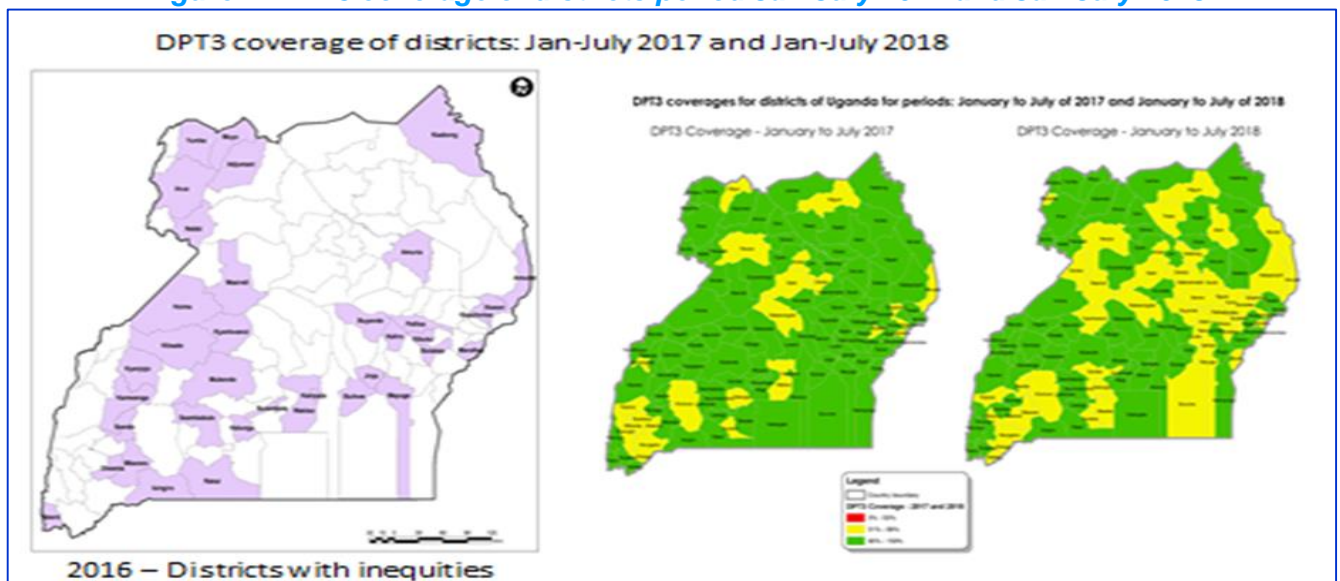
Following the national Immunisation Equity assessment, a package of interventions was developed and supported for implementation at the district and health facility level.

These included: Training in leadership, management and Coordination, Assessments at district level to identify inequity area, Planning and coordination meetings at the district level, Development and update of microplanning, registration of children, distribution of Vaccine and supplies by districts, Supervision and monitoring of service delivery, data review meetings, funding for implementation of outreaches.

The activities conducted with support from hired consultants include; RED/REC coverage and Equity mentorship, training in leadership management and coordination of EPI focal persons at HSDs, EPI review meetings at national level to give feed back to the District Health Teams (DHT) and share best practices to reach more children with immunisation, surveillance activities, support supervision from the Centre by UNICEF EPI consultants and UNEPI teams, micro planning in all 37 districts and financial support for some of the EPI planned activities especially outreaches, integrated child health days, VHTs' facilitation to mobilize for outreaches, and DHT support supervision to lower health facilities.

In the period January to July 2018, 68% of districts (25/37) improved from RED category 3 and 4 to category 1 and 2 and having less than 2000 un-immunised children. Addressing immunisation inequities resulted in improvement however there was a shift of sub-optimal performance to districts that were not supported ([Figure 7](#))

Figure 7: DPT3 coverage of districts period Jan-July 2017 and Jan-July 2018



The districts with inequities that never had dramatic improvement in reduction of unimmunised children were 'Urban areas' namely; Kampala, Wakiso, Mbarara, Mayuge and Sheema. The main factors that were observed for the failure to reduce the unimmunised children included: leadership and Management challenges, unfavourable time for vaccination of working caretakers, failure to put outreaches in urban slums, stock out of vaccines, high cost of transport for the outreaches and charging by private health providers.

Comparing the same period of January-July 2018 and 2017, there is a slight decline in the national EPI performance for DPT3 uptake and this has resulted in increased numbers of unimmunised children at 49,229 (2018) compared to 35,160 (2017) in the same period ([Table 8](#))

In January-July 2018, 16% of the districts (19/122) that are performing poorly and in Category 4 include Abim, Amudat, Budaka, Buhweju, Butaleja, Iganga, Kalangala, Kaliro, Kanungu, Kibuku, Kisoro, Kyotera, Mitooma, Nwoya, Pallisa, Rubirizi, Rukiga, Soroti and Tororo of these a considerable number are newly created districts. The districts with over 2000 un-immunised children in the last 7 months include: Wakiso,

Iganga, Mayuge, Mbarara, Apac, Kyotera, Pallisa and Ntungamo. By July 2018, Kampala district still had the highest numbers of under immunised children at 4,618 and Wakiso had the largest number of unimmunised children at 6,366.

Table 8: Pentavalent Immunisation coverage January-July 2018 and 2017

	DPT 1	DPT3	DPT Unimmunised
2017	102%	96%	35,160
2018	101%	95%	49,229

This shows that despite making improvement in districts with immunization inequities some districts that never had similar interventions did not reach enough children as anticipated. It also indicates interventions work but need to be spread and sustained to all districts for optimal performance.

The major reasons for sub-optimal immunization performance in the districts include:

- Irregular and inadequate distribution of vaccines to lower facilities by districts causing stock outs at health facility levels despite having vaccines at district vaccine stores. The vaccines commonly reported to be out of stock at facilities include: OPV, measles and BCG
- Inadequate supplies from National Medical Stores affected stock levels in the districts with reported stock outs of Measles, bOPV, IPV and Rota vaccines
- Inadequacies in micro-planning and implementation of developed microplans. This is mainly due to lack of funding and efficiency in utilization of available resources
- The failure to reach children in slums in urban areas due to working mothers finding challenges to bring children during working hours of 8-am to 5pm and the high cost of vaccinations by some private providers while the majority of mothers are poor
- Inadequacies in micro mapping and funding to operationalize developed micro plans
- There is inadequate mobilization for statics and outreaches in both urban areas and rural areas due inadequate funds to facilitate VHTs to do mobilization
- The new districts have challenges in staffing levels, lack transport and management capacity of health workers at various levels (district, HSD and facility)

Recommendations to improve performance in the poorly performing districts

Immediate operational recommendations

- Support vaccine forecasting and distribution from the districts to the health facility through adequate planning and allocation of funds to vaccine distribution
- Develop, update district /health facility micro plans and operationalize them through funding
- Special focus on Urban areas specifically ‘Re-Think of Approaches’ – How can community mobilization structure work better in urban areas, Change timing of outreaches in urban areas to weekends especially on Sundays – where people have more time, away from activities of survival. This will enable us to find people in their home areas and with time to come for services.
- Include and utilize coverage and Equity process indicators in monitoring so as to timely address inequities
- Conduct regular focused supervision to districts identified with inequities and poor performance from the quarterly data analysis
- Conduct regular Bi-annual EPI review for all districts using triangulated data to sensitize them on their performance and develop strategies to improve performance.
- Support and spread the interventions done in good performing districts who had immunization inequities to cover all districts for the whole country. Through documentation of good practices and sharing within and outside the districts for implementation
- Integration with other programs on registration of the target population and immunisation service delivery
- Strengthening school health programs through use of school immunization checks / registration at admission
- Implement missed opportunity to vaccination (MOV) plan
- Conduct community awareness, mobilization and child registration to reach target population

Intermediate recommendations

- Advocate for Increased funding for GoU procured vaccines to prevent stock outs at National Medical stores and adequate supplies to districts
- Fast-track the expansion of last mile delivery to health facilities in all districts
- Dialogue and capacity building for Integration / Leveraging of EPI with other intervention projects i.e. HIV, GFF, RHITES
- Plan for establishing electronic registers integrated with the HIV electronic medical records

3.2. Key drivers of sustainable coverage and equity

Leadership, management and coordination:

Improvements in the leadership, management and coordination is key in improvement of immunisation services for effective service delivery and strengthening the health system. Key bottleneck leading to failure in reduction of unimmunised include: lack of skills in leadership and malmanagement to guide planning, functional urban strategy to cater for uniqueness of setting; lack of fully trained health workers in immunisation both public and private clinics; lack of operationalisation of micro plans, inadequate planning, supervision, mentorship, monitoring and use of data for action for decision making; inadequate community engagement and linkages.

Supply chain:

Vaccines supply is important for efficient uptake of immunization services. Vaccine supplies contributed to inequities to immunisation uptake due to: Irregularities in availability and distribution of vaccines to health facilities; inadequate vaccine supplies from National Medical Stores affecting stock levels in the districts; staffing levels especially for cold chain technicians and lack transport especially for new districts and urban areas; lack of vaccine forecasting, breakdown of fridges requiring spares and technical expertise for repair; changes in gas cylinders requiring motor car transport, Fridge tags are faulty in many health facilities affecting the quality and safety of vaccines.

Service delivery and demand generation:

Availability, proximity and timing of immunisation services with while considering social mapping is important in reaching target population. Gaps identified included: lack of involvement of communities in planning and mobilisation; inadequate mapping of service population; irregular outreaches and static session.

In Urban areas there is lack of appropriate timing of services for working caretakers; high cost of vaccinations by private providers; failure to put outreaches in urban slums; high cost of transport for the outreaches and inadequate mobilization.

Health Work Force:

Under staffing exists at districts level, despite staffing increasing from 71% (2015/16) to 73% in 2017. There is high staff turnover¹³, 30% of staff are absent from duty causing long waiting time and dissatisfaction of services¹⁴. Deployment and work schedules of the existing personnel is not appropriately prioritised to cater for immunisation services at district level.

3.3. Data

Status of Health and immunisation information system:

DHIS2 remained the main information system for entry and storage of data on numbers of children reached with immunization services. In order to keep the DHIS2 and the health sector wide information system relevant and valuable for informing decision making to both MoH and her partners, MoH conducts regular review of the HMIS tools in intervals of 5 years. During the

¹³ HRH audit 2016/2017

¹⁴ Sara 2012

reporting period, MoH through the Division of Health Information conducted a review of the Health Management Information System (HMIS) tools. The review is expected to be finalized by the end of 2018. The review included: dropping fields that may not be relevant anymore, addition of fields for which stakeholders have provided interest in adding, harmonization of data requirements across different health programs and customization of DHIS2 to align with the changes in the hard-copy monthly report. UNEPI in particular, the review included dropping gender from the reporting tool as well as inclusions of elements that will enable computation of indicators needed for WHO data quality and data analysis apps.

In addition to the DHIS2, the EPI program continued to maintain the case based – databases that are used for entry and storage of surveillance case-based data. These include databases for AFP, Measles and Yellow Fever. While the cold chain inventory data were maintained in Ms-access, the vaccine and related supply stocks data were entered and stored in Ms-Excel based spreadsheets. To enhance, data use for action, an EPI web-based dashboard supported by CHAI was developed up to district level. This dashboard will be further improved by introduction of the WHO developed immunization application for use at health facility level. There is a need to encourage use of the dashboard at all levels, particularly at health facility. The intention is to integrate data for all EPI components, i.e. finance, cold chain, surveillance, coverage and vaccine stocks on the dashboard, However, during the period under review, the dashboard contained cold chain inventory, vaccine stock and immunization coverage data. JSI supported division of health information to incorporate a customised RED categorisation tool in the DHIS2 to enhance monitoring and use data at source.

The Ministry recognizes the potential of information and communication technology (ICT) in transforming healthcare delivery by enabling information access and supporting healthcare operations, management, and decision making. However, as observed from the case of EPI data, the Ugandan health sector is characterized by a fragmented landscape of ICT pilot projects and numerous data and health information system (HIS) silos with significant barriers to the effective sharing of information between healthcare participants. To form a national plan and communication, the MOH developed a National eHealth Policy (2013)¹⁵ and draft National eHealth Policy (2017-2021)¹⁶ to guide the use of ICT in supporting health sector transformation.

A comparison of the WUENIC and Administrative data for 2017 ([Table 9](#)), administrative data give higher estimates of coverage compared to WUENIC, the difference is less or equal to 10%. This may point to an improvement in data quality compared to 2016 when the difference between the two sets of estimates had coverage equal or great than 10% except for BCG that had a difference of 2.

Table 9: Comparison between WUENIC and Administrative data

Antigen	2017	
	WUENIC (%)	Admin (%)
BCG	89	85
DPT1	95	102
DPT3	85	94
OPV3	80	90
IPV	61	70
PCV3	81	90
Measles	80	83

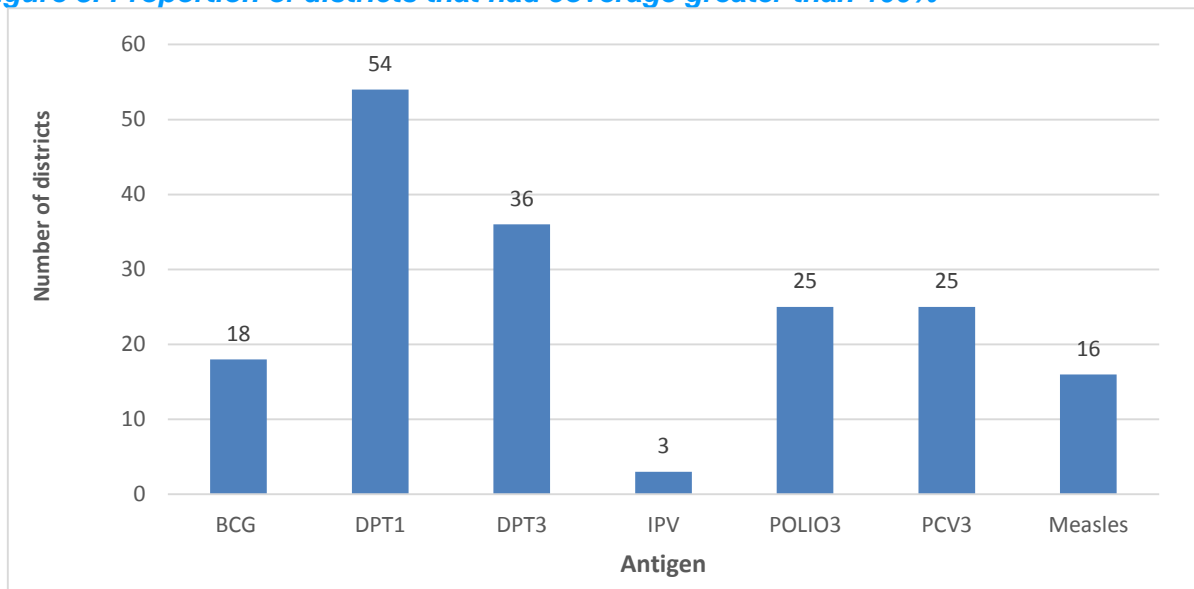
Denominator: The administrative structure of Uganda is National, District, Sub county, Parish and Village in that order of size. The 2014 census provided population numbers up to parish level. This makes it challenging to accurately estimate target populations for health facilities. While at national level admin coverage for all child antigens, except for DPT1 was less than 100%, admin coverage for a number of districts for the different antigens was 100% ([Figure 8](#)). This may either be due to

¹⁵ National Ehealth Policy 2016

¹⁶ National ehealth Strategy 2017 - 2021

the denominator issues or district erroneously reported more children to receive the antigens than actual.

Figure 8: Proportion of districts that had coverage greater than 100%

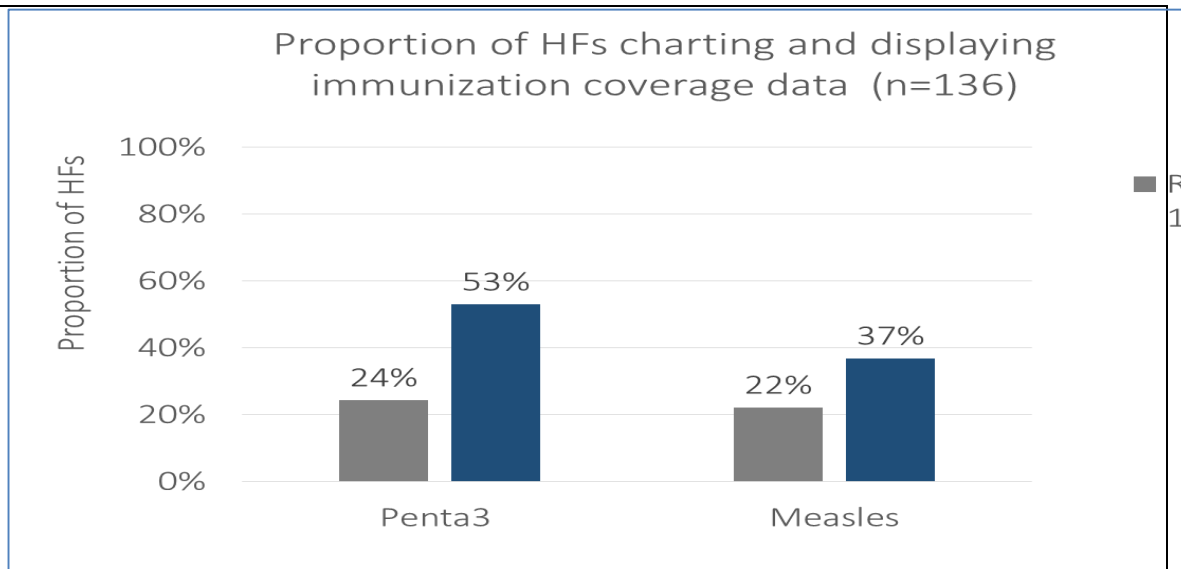


Uganda continues to implement its multi-stakeholder immunization data quality improvement team (DIT) strategy under the leadership of the Ministry of Health (UNEPI and Division of Health Information) and with support from implementing partners including CDC, GAVI, WHO, UNICEF and MCSP. The DIT strategy was developed following the 2013 Uganda immunisation Data Quality Self-assessment, where data quality gaps were identified at all levels of the health system.

The challenges identified through the implementation of DIT are summarized below.

- *Knowledge on target population:* Hoima region increased from 58% to 78% between round 1 (2014) and round 2 (2017) implementations, while for Jinja region it increased from 44% to 65%.
- *Routine Immunization data analysis and use:* The proportion of health facilities charting and displaying immunization monitoring charts increased from 24% to 53% for Hoima region, and from 22% to 37% for Jinja region ([Figure 9](#)).

Figure 9: Proportion of Health Facilities charting and displaying coverage data

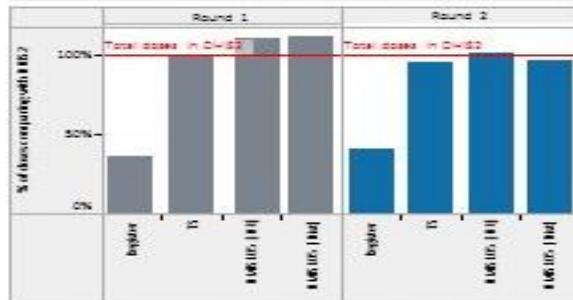


- *Data congruence* – remains a challenge, especially underutilization of the Child Register as shown in graphs below comparing congruence between different data sources from round 1 to round 2 of implementation.
- The bar graphs below demonstrate discrepancy between Child Register, Tally Sheet, Monthly Report and DHIS2 between round 1 (2014 November) and round 2 (2018 April) for Soroti region.
- The scatter plot graphs ([Figure 10](#)) demonstrate congruence between doses of DPT3 and Measles recorded in Child Register vs HMIS 105 monthly report for the same periods compared for Soroti region

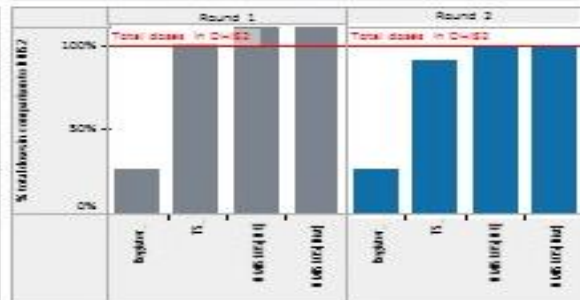
[Figure 10: Immunisation data congruence](#)

Soroti Region - Immunization Data Congruence

Congruence of Penta3 doses between different recording reporting sources vs. DHIS2

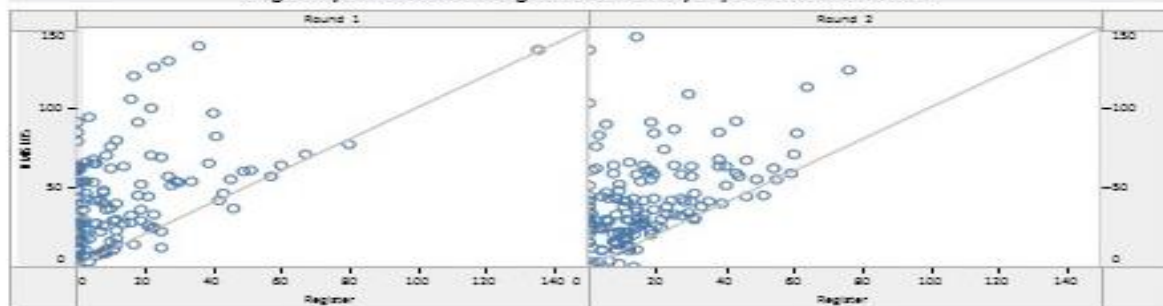


Congruence of MR doses between different recording & reporting sources vs. DHIS2

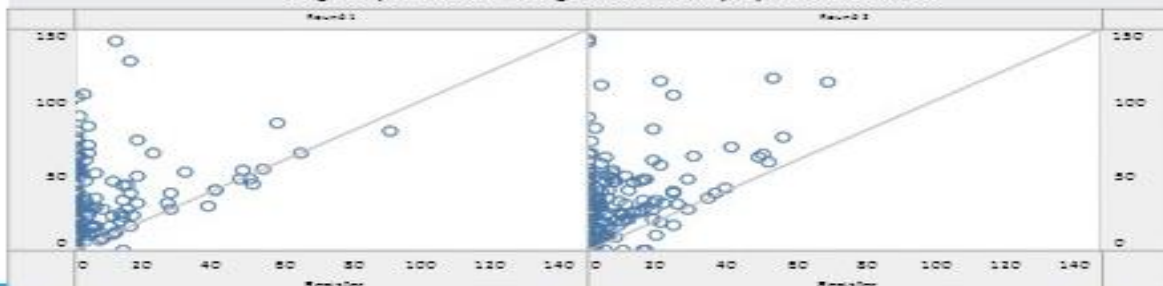


* Blank round 1 graph above denotes no DHIS2 data available for comparison.

Congruency between child register and monthly report for Penta 3 doses



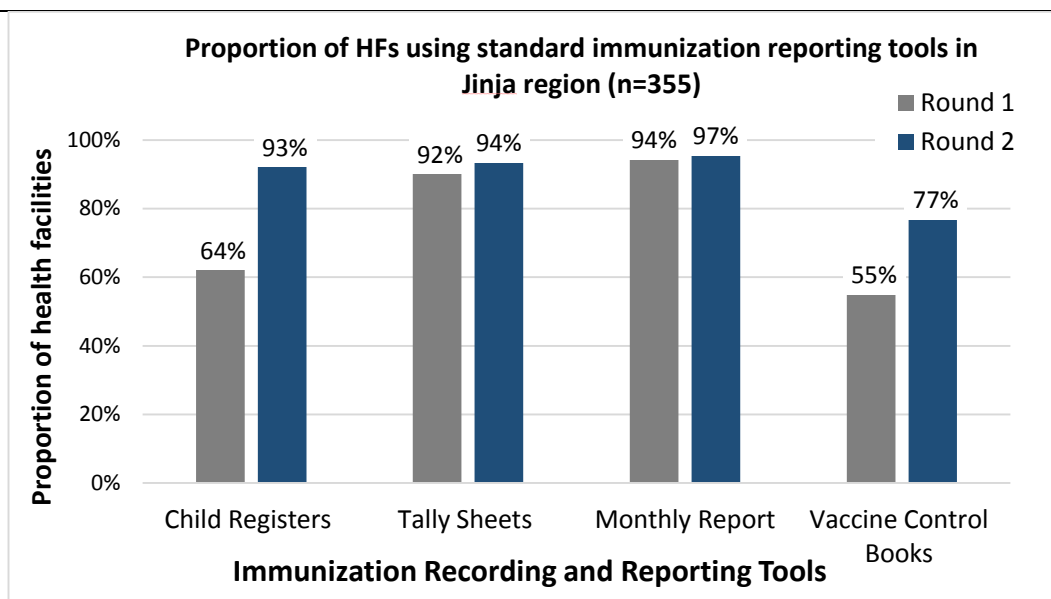
Congruency between child register and monthly report for MR1 doses



Other reported challenges by district teams at regional review meetings included:

- Inadequate supply of EPI data collection tools (e.g. Vaccine and Injection Material Control Books and HPV registers,) was reported as a challenge by several districts participating in the regional review meetings ([Figure 11](#))

[Figure 11: Proportion of HFs using standard immunization reporting tools](#)



- Inadequate leadership, management and coordination capacity: Infrequent internal and external support supervision of immunization services, including data quality, due to inadequate primary health care (PHC) funding
- Staff: unqualified staff, inadequate knowledge, poor attitude and inadequate number of staff
- Irregular data quality review meetings between district health teams and health facility staff due to inadequate funding to implement the review meetings
- Limited implementation of Quality Improvement (QI) projects on EPI including EPI data quality with a heavy focus of attention on heavily funded HIV services
- Lack of finalized and disseminated EPI data validation rules and Standard Operating Procedures for use by district and health facility teams in collecting data and conducting routine data cleaning activities.
- Data validation not done at some health facilities before submitting report to next level
- Discrepancy between antigens provided at the same time is still observed in a few districts, e.g. between PCV3 and DPT3

In 2018, the UNEPI, with support from partners, conducted an in-depth assessment of the information system, data quality assessment in order to develop a strategic data improvement plan. During this process, the following findings were highlighted:

- Poor quality data due to miscounting, tallying, recording, transcribing and lack of verification at data entry point
- Poor data management processes at district level leading to problems with completeness, timeliness, and accuracy of data and reports
- Understaffing of data personnel at all levels (health facility, district, and national)
- Lack of reporting by Private For Profit facilities and registration on DHIS2 platform
- Limited use of empirical evidence from EPI data in decision making at the points of data generation and beyond e.g. district coverage estimates
- Stock out of HMIS tools e.g. home-based records (HBR)
- Limited internet connectivity, current provider does not cover some remote areas and the scope of services does not include emails to enhance communication e.g. reporting to DHIS2
- Limited triangulation of vaccination and vaccine management data due to diverse reasons e.g. the existence of parallel system for vaccine stock and vaccination data management
- Unstable DHIS2 platform especially during reporting time due to limited capacity of the server and time for data entry
- Private facilities that provide vaccination do not systematically report to DHIS2
- National data improvement team not officially established
- Strategic data improvement plan not yet finalized

- Annual data improvement activities have not yet been populated in the annual standard template.
- Quarterly review of data improvement plan has not been systematic

3.4. Immunisation financing

To ensure sustainable financing for immunization, the government of Uganda has the following key documents in place: National Health Financing Framework, Resource mobilization framework, cMYP 2016-2020, Annual Work Plan 2018 and the Grant performance framework. The funding from Partners and activities in CMYP and Annual work plans are captured in National health budgets.

Government of Uganda funds traditional vaccines to a tune of US dollars 2,944,325 (11 billion Uganda shillings) and provides co-financing for new vaccines worth US dollars 2,880,500. Currently GoU has paid all the 2017 co-financing and close to 80% of the 2018 co-financing. However there remains challenges of inadequate funding for traditional vaccines to meet the target population needs resulting in stock outs.

The key issues affecting immunisation financing include:

- 1) Funding cycle of GOU is 1st July – June 30th while most partners have a financial year running from Jan- December. This affects flow of funds when Uganda is paying its co-financing obligations.
- 2) Unresolved Funds flow mechanisms has delayed implementation of HSS2 activities impacting program performance
- 3) Budgeting - The Gavi budgeting and planning template is not linked to GoU's Programme Budgeting System. This creates challenges in reporting financial performance.
- 4) Funds allocation - the funds allocated by GOU for traditional vaccines are under financed hence leading to vaccine stock outs
- 5) Disbursement of fund to districts - Multiple accounting systems supporting disbursement of funds causes hindrances in system-based reporting from District Local Governments (IFMS) to the various supporting partners. The funds disbursement experience minor delays occasionally, however once funds are received, disbursement and execution ordinarily take 2-3 weeks
- 6) Other external factors affecting immunisation financing include: international prices of vaccines having upward tendency because of global price inflation trends, inflation affecting the Uganda shilling value against the USD

4. PERFORMANCE OF GAVI SUPPORT

4.1. Performance of vaccine support

(i) Men A campaign (USD 4.5M)

Achievement against agreed targets

- Funds were received in November 2016 but implementation was done in January 2017
- Achieved coverage for MenA vaccination of 104% against the target 95%
- Implementation of coverage survey commenced on July 17, 2017
- Establishment of meningitis case-based surveillance in the high-risk districts is ongoing

Challenges

- The Program Capacity Assessment (PCA) was ongoing and therefore there was a delay in the choice of a fund management model
- Delayed release of funds

Good practices of innovation

- Use of WHO for funds management due to the Program Capacity Assessment.

(ii) Rotavirus vaccine introduction:

On 26th June 2018, the Government of Uganda in conjunction with WHO, UNICEF, Gavi, and other partners, officially launched rotavirus vaccine into the routine immunization schedule in the country to protect children from rotavirus diarrhea. Diarrhea is among the top ten causes of morbidity in Uganda. Rotavirus disease accounts for almost 40% of all diarrheal cases in Uganda with an estimated 10,637 children under-5 years of age dying annually. The introduction was timely to strengthen the integrated Global Action Plan for the Prevention and Control of Pneumonia and Diarrhea strategy to reduce the morbidity and mortality associated with the severe rotavirus diarrhea. The introduction was also an opportunity to strengthen routine immunization in the country. From June to October 2018, 141% and 69% of 556,464 children under 1 year targeted were reached with Rota1 and Rota2 vaccination respectively (DHIS2 data Jun – Oct 2018).

Other initiatives not supported by Gavi

With support from WHO and UNICEF, UNEPI successfully implemented a sub-national Polio Campaign in September 2017 in 73 districts. The districts were selected based on the following criteria;

- a) Regions with a confirmed polio compatible case in the last two years
- b) Regions currently hosting refugees (West Nile, Hoima, Kabarole, Karamonja, KCCA, Wakiso districts)
- c) Regions with more districts with sub optimal performance in surveillance (<80% of districts with a rate of <2/100,000)

*Past performance for measles and rubella (immunisation coverage analysis and rubella surveillance, performance¹⁷) and progress against the country’s **measles-rubella 5-year plan**.*

The UNITAG has developed a new vaccine introduction prioritization framework for the next five years. Following the framework, Uganda requested and has received approval from Gavi for Measles-Rubella campaign and introduction grant. The Ministry of Health has planned to conduct the campaign and introduce the MR in 2019. Gavi has already approved funding for MR campaign planned for 2019, followed by MR introduction into the routine program as well as measles 2nd dose in 2020.

Uganda applied for a PCV switch grant from Gavi in 2017 with the plan to conduct the switch in 2018. The aim was to facilitate the switch from two-dose vial to four-dose vial; following an eminent shortage of 2-dose vial in 2018 as manufacturers were to stop production. However, Uganda has not received a decision letter.

4.2. Performance of Gavi HSS support (if country is receiving Gavi HSS support)

Provide a succinct analysis of the performance of Gavi’s HSS support for the reporting period.

(i) HSS1 (USD 11.4M)

Achievement against agreed targets

- Exceptional no cost extension running from July 2016 to June 2017 (US\$ 6,144,044) and later extended to 30 November 2017
- Major funding was for construction 26 staff houses and 19 medicines stores and all have been completed

Challenges/Barriers

- Delay in processing of payments to suppliers partly because of upgrade of IFMS and delay in processing payments by MoH
- Quality management issues in construction and delays by contractors majorly related to capacity constraints
- Delay in accountability for funds

¹⁷ Please include analysis of MCV1 and MCV2 routine immunisation and MCV campaign coverage at national and sub-national levels (admin and survey data), information on case distribution by age, geography, vaccination history, etc. for measles and rubella (including CRS), including outbreaks, at national and sub-national level.

- Human resource capacity constraints in supervision of construction
- Low fund absorption of HSS funds leading to protracted grant extensions

Good practices and innovations

- Good level of engagement with development partners such as WHO, UNICEF and CHAI
- Use of IFMS to make payments for Gavi grants
- Use of Gavi TA – to support financial management

(ii) HSS2 (USD 30.6M)

Uganda was approved for the HSSII grant in 2016. USD 560,000 was released by Gavi in June 2018. However, activity implementation delayed to October 2018 awaiting approval of activities by a Technical Coordination committee. Activities are being implemented in quarter 4 of 2018. Full implementation is awaiting Uganda’s successful agreement with Gavi on the funds flow; following a planned Program Capacity Assessment (PCA) in November 2018. The country has set up an independent Fiduciary Management structure and increased staffing to UNEPI to ensure appropriate, timely and efficient use of these Gavi funds.

Out of a total of USD 2.1M of HSS2 planned to cofinance CCEOP, USD 561,000 was released by Gavi to UNICEF supply division for procurement of 608 cold chain equipment (fridges, freezers and accessories) under the first phase. The equipment arrived in the country, launched on 23rd October 2018 and are being distributed to the beneficiary health facilities.

The HSS1 grant had four objectives namely: (1) to improve the delivery of UNMHCP including immunization by providing the necessary infrastructure, logistics supplies and management training; (2) to support the participation of communities in health care delivery and decision making through scaling up of the establishment and training of village health teams; (3) to strengthen the capacity of the health workers at all levels of health care delivery at district level to manage and utilize their data and (4) to strengthen the capacity of the private sector to deliver immunization and other child health services by providing cold chain, training and other related issues.

By close of 2016, activities under objectives 2, 3 and 4 had either been completed or stopped. Only civil works activities under objective 1 which spilled over to 2017 were implemented in 2017 ([Table 10](#)).

Table 10: HSS I objectives 2017 implementation

Objective 1 (HSS1):	
Objective of the HSS grant (as per the HSS proposals or PSR)	<ul style="list-style-type: none"> • To improve the delivery of UNMHCP including immunization by providing the necessary infrastructure, logistics supplies and management training
Priority geographies / population groups or constraints to C&E addressed by the objective	<ul style="list-style-type: none"> • Twenty-six (26) health staff houses were constructed in in hard to reach communities of 15 districts • Nineteen (19) medicine stores were constructed in 19 districts
% activities conducted / budget utilisation	<ul style="list-style-type: none"> • 100% activities implemented • 95% of the budget had been utilized
Major activities implemented & Review of implementation progress including key successes & outcomes / activities not implemented or delayed / financial absorption	<ul style="list-style-type: none"> • Completion of construction • Supervision of civil works
Major activities planned for upcoming period (mention significant changes / budget reallocations and associated needs for technical assistance ¹¹)	<ul style="list-style-type: none"> • Handover of staff houses, fixing of construction snags and official closure of the HSS1 grant.

4.3. Performance of Gavi CCEOP support (if country is receiving Gavi CCEOP support)

Uganda submitted Cold Chain Equipment Optimization Platform (CCEOP) support application to Gavi - The Vaccine Alliance in May 2016 with the objective of strengthening the supply chain and contributing to the efforts of improving coverage and equity of immunization services in Uganda. In April 2017, the Government of Uganda received the approval of Gavi support for a 2-year grant worth \$8.31m.

A Project Management Team (PMT) led by the Program Manager of the immunization program in the Ministry of Health was set up to coordinate the CCEOP implementation process. Deviation officers both at national and district level were identified to manage any deviations that could arise using the deviation protocol.

Year 1 Implementation Process

In June 2017, Uganda developed an Operational Deployment Plan (ODP) for the first year of the CCEOP totaling to 700 equipment. A site readiness assessment was conducted for the identified facilities with support from partners to inform the ODP submitted to UNICEF SD in July 2017.

UNICEF was responsible for issuance of tenders for a service bundle and development of the Costed Operational Deployment Plan (COP). The COP was reviewed and approved by Gavi and MOH in November 2017. Cost estimates (CE) were then issued to Ministry of Health (MOH) for approval and acceptance. This subsequently reduced the number of equipment to be procured from 700 to 608 equipment under phase one of CCEOP Implementation ([Table 11](#)).

Table 11: Initial country request vis-à-vis the approved quantities by model

Equipment Models	Initial request	New approved COP	DIFFERENCE
VLS200A Green line	93	65	28
VLS300A Greenline	63	45	18
VLS400A Greenline	16	11	5
MF314	137	96	41
VLS054SDD Greenline	196	196	0
VLS094SDD Greenline	195	195	0
TOTAL	700	608	

In close collaboration with UNICEF SD and manufacturer of the equipment, a local service agent, LM Engineering company was contracted to receive, store, distribute, install, commission cold chain equipment and train health workers. A team from Uganda conducted a pre-shipment inspection of the equipment from 3rd- 6th July 2018([Figure 12](#)).

The first consignment of the 608 equipment arrived in the country on 1st October 2018. Customs clearance was done by UNICEF on behalf of MOH. Equipment was received and are currently being distributed and installed ([Figure 13](#)).

Figure 12: The team that participated during the PMT central level Training

Figure 13: LM Engineering Warehouse storage of equipment



A national level training for PMT and 15 identified regional cold chain technicians was conducted on 22nd October 2018. The training covered basic handling of equipment, user level preventive maintenance, warranty terms and conditions in relation to usage (including claim procedures) and overview of corrective maintenance requirements for each category of CCE. This was followed by a national level launch ceremony presided over by the Hon. Minister of Health on 23rd October 2018 in presence of the Permanent Secretary MOH, Partners, MOH Officials and several local leaders as way of promoting ownership. Districts were officially notified about the expected equipment and installation timelines. Implementation is currently being monitored through monthly PMT meetings.

To capitalize on the benefits of CCEOP, the following areas of focus have been identified for support:

- Strengthening capacity for preventive maintenance
- GPS mapping of health facilities
- Decommissioning of obsolete equipment

4.4. Financial management performance

- By 31st Dec 2017, USD 16,421,701 (85%) of the approved HSS1 Grant had been disbursed by Gavi. HSS1 Grant officially closed on 30th Nov 2017.
- By 31st Oct 2018,
- Financial reports have been submitted for 2017. Financial report for Rota to be submitted.
- Audit reports from 2017 is yet to be received.
- The country has provided a status update on the cash programme audit and GMRS. There is an ongoing monitoring review to review the financial management systems and to recommend funding modalities going forward.
- The programme uses IFMIS and currently improvements are ongoing for reporting. Advances management module has been activated and districts are operating a treasury single account on IFMIS. There is also a Programme Based Budgeting System PBS which is linked to IFMIS. However, this is not linked to the Gavi budgeting templates. To follow up with MoFPED.

Grant	Grant Category	Approved (USD)	Absorbed (USD)	Utilized (USD)	% utilized
HSS	HSS1	19,242,000	16,421,701	16,421,701	85%
	HSS2	30,600,000	1,122,572	1,122,572	4%
ISS	ISS1	818,424	818,424	818,424	100%
	ISS2	2,649,520	2,649,520	2,649,520	100%
VIG	PCV	1,372,000	1,372,000	1,372,000	100%

	HPV	1,336,980	1,336,980	1,336,980	100%
	IPV	1,356,500	1,356,500	1,356,500	100%
	Rotavirus	1,506,500	1,506,500	1,506,500	100%
Men A Campaign	Men A Campaign	4,080,621	4,080,621	2,969,878	73%
CCEOP	CCEOP	8,310,085	0	0	0
MAC	MAC	308,743	253,308	253,308	82%

4.5. Transition planning (if applicable, e.g. country is in accelerated transition phase)

Uganda is still in the initial self-sustaining stage as per Gavi Transition framework. So this is not applicable.

4.6. Technical Assistance (TA)

PEF ACTIVITIES

In 2017 and 2018, health development partners through Gavi Partner Engagement Framework (PEF) funding supported the Ministry of Health Uganda National Expanded Program on Immunisation to implement key priority Annual Work Plan Activities.

1. Leadership Management and Coordination (LMC) – Activity completed by UNICEF and CHAI, and WHO

The results of the immunization equity assessment in Uganda revealed that one of the key constraints contributing to the lower coverage of immunization is the weak management and governance capacity of the health management teams and the EPI supervisors. More specific constraints that were observed were related to the lack of team work at district level, lack of evidence-based planning and monitoring, and lack of capacities in distribution and management of the stock outs and high absenteeism.

In November 2017, UNICEF worked with UNEPI and HDPs to conduct Leadership, Management and Coordination trainings for EPI health workers managing immunization in 37 districts identified with immunization inequities. In the meeting bi-annual review meetings for EPI focal persons were recommended to help leaders better manage service delivery systems and review performance regularly and put timely corrective actions. Leadership, Management and Coordination (LMC) capacity building was also recommended to cover all EPI focal persons countrywide.

On 22-23 October 2018, EPI-Review workshop on LMC was conducted with attendance of 44 EPI focal including refugee hosting districts. The review focused on management indicators and EPI performance for the periods January – July 2017 and January – July 2018. Comparative analysis revealed marked improvement in 68 % of districts with immunization inequities, with un-immunized children reduced to less than 2,000 in each of the districts. Well performing districts shared best practices and meeting concluded with recommendations to districts to follow the best practices, improve on their management and technical skills and performances. Other recommendations made in the meeting were (1) strengthening the community mobilization with megaphones and allowances for VHTs to mobilize communities for outreaches and static sessions; (2) supporting quarterly regular repair of fridges to ensure continuous functionality; (3) providing fridge tags to every district to replace those that get faulty on a quarterly basis; (4) scale up of leadership and management training to all HSDs; (5) planning for exchange visits between well performing units and poorly performing units within districts; (6) supporting outreaches in slum areas and establishment of VHT system / functionality of VHT system in urban areas; and (7) involving local leaders in planning and review of immunization at all levels.

On 1- 3 October 2018, the consultant working with Human Resource Management Development Centre (HMDC) – Mbale, updated the Leadership and Management training materials (LMC) using feedback received from the EPI review meeting. The HMDC, MoH and UNICEF’s technical support developed LMC materials that are easy to understand and use by health facility staffs focusing on addressing identified management gaps that affect reaching all children with immunization.

On 5-8 November 2018, additional 41 health workers from 41 districts were trained in LMC led by facilitators from HMDC. The training equipped DHT and HSD EPI focal persons with knowledge, skills and competencies of leadership for immunization in the areas of supervision, micro planning, financial management, social mobilization, advocacy, monitoring, team building, managing change, managing conflicts, team building and facilitating trainings so that they can support health workers in districts and facilities with immunization inequities to implement targeted interventions to reach un-immunized and marginalized children. The LMC trainees recommended follow up visits by central teams to allow sharing of work-based issues and find hands-on solutions.

Immunisation Coordination Committee (ICC)

At the National level, UNEPI/GAVI coordination unit worked with CHAI and WHO to establish the Immunisation Coordination Committee (ICC), which was named the Immunisation Board (IB) in order to align with the Immunisation Act 2017. The Inaugural meeting for the 10-membership board was conducted on the 21st September 2018 and chaired by the Minister of Health. The ICC/IB membership is served by the Permanent Secretary as the board chairperson, with the commissioner as secretariat supported by the UNEPI/GAVI coordination team and partners. The 10 ICC/IB members are listed in the table below

No.	Designation	Role
1.	Permanent Secretary Ministry of Health	Chairperson ICC/IB
2.	National Medical Stores (NMS)	Member
3.	Ministry of Education and Sports	Member
4.	United Nations Children’s Fund (UNICEF)	Member
5.	Civil Society	Member
6.	Ministry of Local government	Member
7.	UK Department for International Development (DFID)	Member
8.	Private Sector	Member
9.	Ministry of Finance	Member
10.	World Health Organization (WHO)	Member

Following the inaugural meeting, all 10 members were oriented on the Terms of Reference in early November 2018. a Technical Coordinating Committee (TCC) was also established to support the ICC in review of the EPI technical components such as work plans, procurements and other immunisation processes. The TCC will conduct regular reviews with the immunisation program and provide recommendations for approval to the ICC/IB. The ICC/IB will provide strategic oversight and guidance on the performance and financial management of the immunisation program including the ensuring compliance with the Immunisation Act, 2017 and operationalizing the immunisation fund. The ICC/IB will review immunisation performance and audit reports and provide recommendations for the immunisation program but also recommendations pertaining the intervention of key institutions represented in the board membership.

CHAI also worked with the immunisation program to develop national and district immunisation work-plans for 2017 and 2018. The national immunisation work plan is a costed, prioritised and time bound operational plan where immunisation activities have been categorised into 7 immunisation specific areas/components (ISC). The ISCs include: Program management and financing; New vaccine introduction; Service delivery and training; Supply chain and cold chain logistics management; Advocacy and social mobilisation; Disease surveillance; Data management and Monitoring and Evaluation

Each ISC has a lead person assigned by the Immunisation program manager to ensure effective implementation of activities as per the workplan and coordination with partners throughout the year. With support from CHAI, UNEPI conducted 4 quarterly reviews of the 2017 annual work plan achieving 80% completion rate of activities by the end of the year. In 2018, the immunisation

program conducted 3 quarterly reviews for the 2018 annual work plan however activity completion rates remain low below 50%, due to delayed disbursement of funds such as HSS funding.

At the district level, the immunisation program with support from CHAI, has worked with district health teams in 7 focus districts (Yumbe, Moyo, Kalungu, Sheema, Wakiso, Bukomansimbi and Alebtong) to develop district immunisation workplans as the leadership, management and coordination tool to improve immunisation planning, accountability and resource management. In districts where more than one immunisation partner has provide support, eg Kalungu with CHAI and JSI, the immunisation program has ensured coordination of activities between the partners to avoid duplication of efforts. For example, the program has ensured joint planning and quarterly review meetings with district health stakeholders in Kalungu over the past year.

In addition to development of work plans, UNEPI with support from CHAI conducted quarterly reviews of work plans from the previous financial year (2017/2018) which showed 43% activity completion rate among all 7 districts combined. UNEPI also conducted mentorship and supervision visits to selected health facilities to improve vaccines management and service delivery.

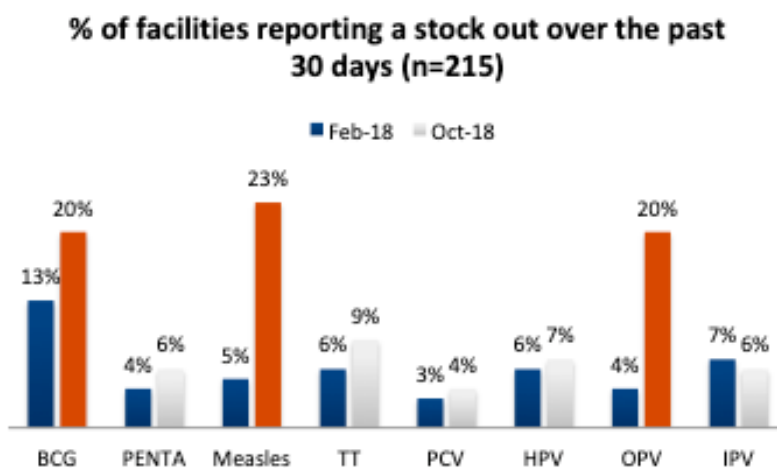
Districts noted the following challenges to achieving coverage through the work planning processes

- i) Stock outs of OPV and Measles in Moyo and Yumbe districts
- ii) Lower district target population’s district compared to Uganda Bureau of Statistics (UBOS) in Sheema, Moyo and Bukomansimbi districts, which resulted in coverage appearing low. This was informed by on-going registration of all children under 5 coordinated by the planning departments within the local governments of each of these districts.

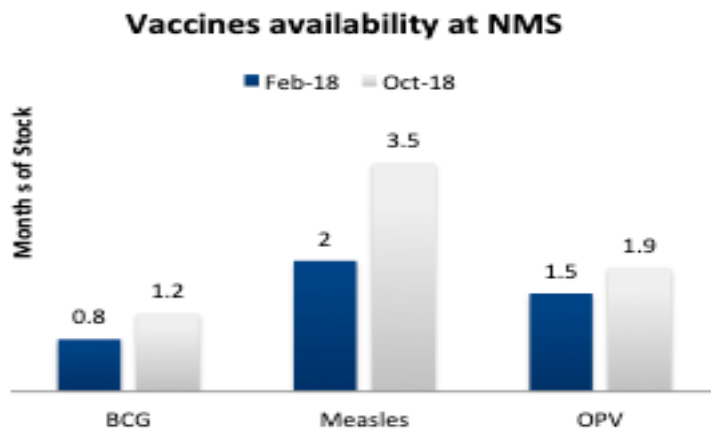
Stock availability in 7 focus districts: a high proportion of facilities in the 7 LMC districts reporting a stock out in the past 30 days especially for BCG, Measles and OPV. (See graph A)

However, central level stock for BCG, Measels and OPV showed available stock at NMS at the same time point (see graph B)

The district stock out rates therefore are likely driven by forecasting, quantification and redistribution practices between the district and health facility level.

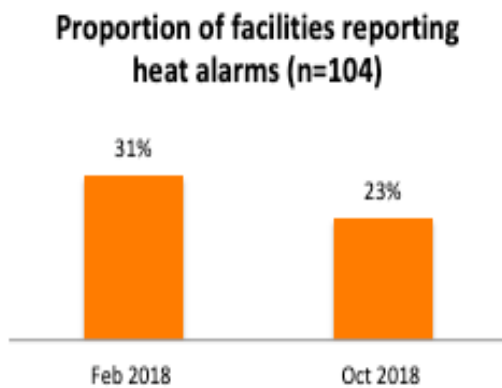


Graph A : Percentage of health facilities in the 7 LMC districts reporting a stock out in the past 30 days, a comparison between February 2018 and October 2018



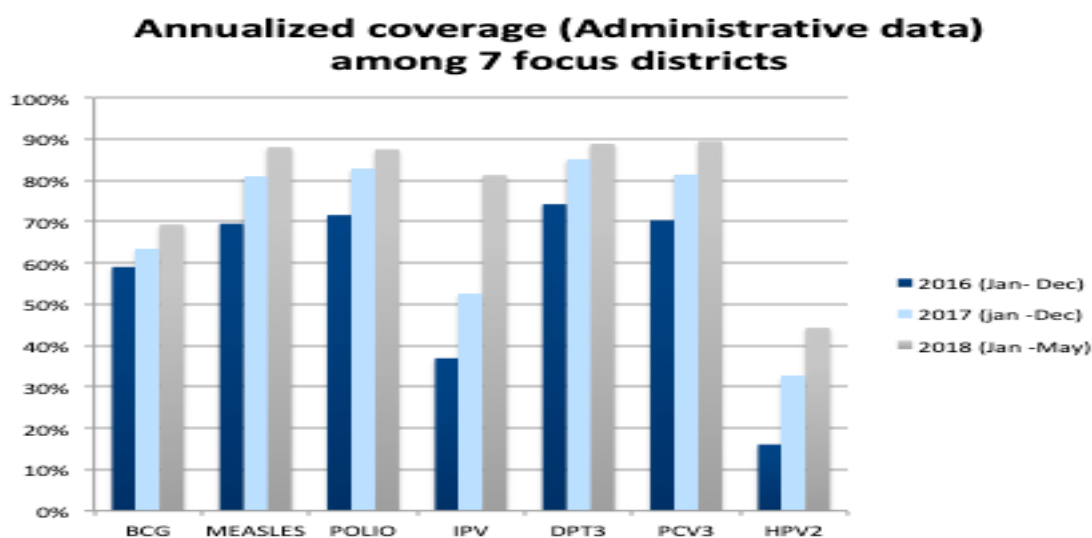
Graph B : The stock levels of BCG, Measles and OPV at NMS represented in months of stock.

Cold chain management among 7 focus districts: As a result of UNEPI supervision visits with support from CHAI, the number of heat alarms in the 7 focus districts has reduced by 8% and the number of freeze alarms has reduced by 66% see graphs C and D below.



Graph D

Coverage improvements among the 7 focus districts: As shown in the graph below, UNEPI with support from CHAI has worked among the 7 focus districts over the past two years (2017 and 2018) to monitor and improve overall coverage among these districts



2. Immunisation Coverage and Equity

In the period 2017/2018 UNEPI through UNICEF PEF conducted mentorship and supervision to ensure update and use of REC micro plans with focus on district level immunisation inequities using uniform approach. This also entailed support to urban and peri-urban communities in 4 districts - KCCA, Iganga, Arua, Jinja so as to improve access of immunization services targeting the informal settlements.

Forty-three districts were supported by hired EPI consultants to develop EPI RED/REC micro plans with specific interventions to reach children in high risk populations including reaching more children in urban poor communities and informal settlements. Child health-days' activities were included in most micro plans. UNICEF supported 56 districts for child days activities of October 2018 including the districts with inequities. Accomplishments include:

- i) 43 district micro plans and 178 DHT members oriented in RED/REC/C&E
- ii) 1,368 health facility micro plans developed for implementation
- iii) 2,924 Health Workers supervised and oriented on RED/REC/C&E
- iv) All the District and HF updated the costed micro plans and included high risk communities, prioritized for inclusion in health service delivery. The DHT to conduct resource mobilization for additional activities required
- v) A total of 3,102 health workers were mentored outreach audit methodology and community approaches
- vi) DHT and Health facility in-charges have started functionalizing outreaches and making them effective through use of community mobilization structures
- vii) Districts have started to use the government airtime on local radio stations under RDCs' office to effectively communicate to the communities on immunization, UNICEF is running radio spots on immunization and IEC materials on immunization developed and distributed to the districts
- viii) A total of 43 districts and 1,200 health facilities were supported in skills of good supervision, mentored on immunization and the high-risk communities, provided supervision checklists and conducted follow up of the supervision practices
- ix) A total of 1,368 out of 1,425 health facilities (96%) were supported to develop immunization monitoring charts

Kampala City Council Authority (KCCA) needed special attention due to population size and significant informal settlements. During July 2017 to October 2018 the following activities were supported:

- i) Consensus building meetings with private health care providers
- ii) Supported identification of the unreached populations and under-served area. Worked with KCCA divisional Medical Officers to develop area specific EPI micro plans to reach more children
- iii) Provided support to cold chain maintenance and repairs
- iv) Distribution of vaccines to all health facilities during October child days with embedded supportive supervision by the health managers and supervisors
- v) Provided support to community dialogue with religious leaders
- vi) Implementation of immunization outreaches in slum areas and underserved communities
- vii) Conducted EPI review meetings with KCCA divisions
- viii) Training of the two EPI focal persons from each of the five divisions in leadership and management for immunization

As result, the comparative analysis of DHIS2 data for period of January – July 2017 and January July 2018 showed:

- i) Reduction of under-immunized children (drop outs DPT1-DPT3) by 32% from 6,886 to 4,618 in the two periods
- ii) KCCA shifted from category 2 (2017) to Category 1 (2018)

Despite the improvement, KCCA still has the largest number of under-immunized children in the whole country. More funds have been disbursed to KCCA to continue implementation of planned activities.

Next Steps

- i) Align and establish RED/REC/ C&E district micro plans in the districts FY plans for sustainable financing
- ii) Support the districts in RED/REC/ C&E training, supervision and monitoring to reach the target population

- iii) Conduct Leadership, Management and Coordination in all districts of Uganda to ensure optimal immunization service delivery
- iv) Conduct social mobilization through community structures to improve demand and uptake of immunization

In April 2017, Uganda was approved to benefit from the CCEOP support with equipment worth \$10.76m with the objective of strengthening the supply chain and contributing to improving coverage and equity of immunization. Funds for the 1st 2 years were approved. A project Management Team (PMT) led by the program manager of the immunization program in the Ministry of Health was set up to coordinate the entire process. Officers both at national and district level were identified to manage any deviations that could arise using the drafted deviation protocol.

3. Cold Chain Equipment Optimisation Platform

Site assessments for the identified facilities with support from partners (UNICEF, CHAI, PATH) were conducted and a completed Operational Deployment Plan (ODP) was submitted to UNICEF SD in July 2017. UNICEF was responsible for issuance of tenders for a service bundle and development of the Costed Operational Deployment Plan (COP), the COP was reviewed and approved by Gavi and MOH in close collaboration. Cost estimates (CE) were then issued to Ministry of Health (MOH) for approval and acceptance. Due to increased capacity requirements, the number of equipment to be procured reduced from 700 to 608 under phase one of CCEOP Implementation. The first consignment of the 608 Cold Chain Equipment arrived in the country on 1st October 2018. Customs clearance was done by UNICEF on behalf of MOH. The manufacturer engaged a local service agent, LM Engineering company to be responsible for receiving, storing, distributing, installing, commissioning of the cold chain equipment and training of both health workers and the Project Management Team. The equipment was launched by the Hon. Minister of Health on 23rd October 2018, and the Permanent Secretary MOH, Partners, MOH Officials and several local leaders attended. Distribution and installation is in progress. PMT will monitor the installation process in collaboration with the regional cold chain teams. Development of second year ODP is in progress for the 2500 expected units.

4. Finalise and disseminate the EVMSA findings and finalise the EVM implementation plan, quarterly monitoring of the EVMIP with support from the regional teams.

Increasing demand for vaccines due to population growth and cost of vaccines are making countries' financial investment in vaccines to keep rising. Apart from the cost of purchase, vaccines require other financial commitment for management especially with greater storage volumes that will be required at every level of the cold chain system at national and sub-national level. Therefore, countries must conduct accurate forecast for vaccine requirements, adjust stock levels, reduce wastage, and prevent equipment break-down of storage and transport equipment. To achieve these, consistent high standard of supply chain management practices is required. The EVM initiative provides the materials needed to monitor and assess vaccine supply chain and to help countries improve system performance.

In Uganda immunization supply chain operates in three levels namely national (primary), district (lowest distribution) and service point (health centres). On 15– 19 October 2018; Uganda conducted Effective Vaccine Management assessment targeting national store, 21 district stores and 22 health centres that provide immunization service to targeted children and women.

The 2018 assessment followed the assessments conducted in 2011 and 2014. The 2018 assessment reviewed records of the past 12 months from 1st July 2017 to 30th June 2018. The findings revealed that the country met the minimum score requirement and had made progress in all required vaccine management criteria compared with 2014 EVM assessment result.

- The national medical store met requirement of 80 per cent and above in all the criteria and showed progress when compared with 2014 EVM assessment
- The 21 districts assessed met the mean criteria score of 80 per cent and above in 7 out of the 9 applicable criteria
- E5: Maintenance and E6: Stock Management were below target
- E9: Information and Supportive Functions were below target at service level

A follow up EVM implementation plan has been developed to address the identified gaps in the supply chain.

5. Demand promotion

Engaging the non-health stakeholders (CAO, RDC, LC5, district planner, Secretary for Health, district councils, CDOs, etc.) with special focus in the 36 districts identified with inequities.

A two-day dialogue meeting on EPI Communication for Routine Immunisation was held from 20th to 21st June 2018 with social cultural leaders comprising of religious and traditional leaders, district, political and technical teams (Local Council V chairpersons, Chief Administrative Officers, District Education Officers, Inspectors of schools, District Community Development Officers, District Health Officers, District Health Educators, EPI Focal Persons and DHIs). Participants were drawn from 5 districts with inequities in South Western Uganda, namely Mbarara, Sheema, Isingiro, Ibanda and Kisoro.

The key deliverable from the meeting was the development of communication plans for each district on how to tackle specific routine immunisation communication related issues. (Report and draft Communication Plans are available). A concept note, plan and budget to rollout this engagement at district level and sub-county level in an additional 55 districts with inequities and high numbers of deprived children has been developed.

6. Comprehensive EPI communication strategy

The review and update of National EPI Communications strategy is in the final stage of completion. Awaiting final review and comments from key Ministry of Health technical persons in Health Promotion, Education & Communication department. A stake holders' meeting to review the draft strategy was held on 18th-19th October 2018 and the update of the National EPI Communication Strategy was completed. A final draft is in place awaiting finalisation by MOH. The roll out plan is being developed by the consultant to guide the dissemination of this key document for district and sub-district levels. Regarding how the strategy addresses inequities, these were captured in the situation and behavioural analyses. They were addressed through key interventions under strategic communication interventions of behaviour change communication, social change communication, social mobilization and advocacy.

Next steps include the development of a detailed 5-year implementation plan, development of an M&E framework with indicators and development of the roll-out framework of the National EPI Communication Strategy.

Printing and dissemination of the communication plan with special focus on identified districts with gaps, barriers high risk to immunisation.

7. Support to national level leadership, management and coordination meeting on HPV mobilization for improved uptake

This is on-going and led by UNEPI. Meetings with key HPV vaccination stakeholders, including Ministry of Education and Implementing Partners have been held regularly. The National HPV Coverage Improvement Plan has been developed and its implementation is on-going. The National HPV Communication strategy is being developed to improve HPV uptake and guide the stakeholders in generating demand for HPV services.

8. Sensitization of district leadership and stakeholders on HPV uptake with emphasis on utilizing the school mapping of static and outreach strategies per health facility (to cover 36 districts of C&E)

HPV sensitisation regional workshops were conducted in December 2016 covering all districts clustered in 10 Health regions participants included District Education Officers, Inspectors of Schools, District Community Development Officers, District Health Officers, District Health Educators and Secretaries for Health.

Lessons learnt during these workshops contributed to the development of the National HPV Coverage Improvement Plan that has been developed by the Ministry of Health.

9. Support development of a specific HPV Communication strategy & plan

The HPV Communication Strategy development process is ongoing. UNICEF hired TA to support MoH in the development process. Desk review was undertaken to better understand the factors affecting uptake of HPV vaccination. The review report was presented to key stakeholders during a national level meeting as well during district consultations in 6 districts (Kamuli, Mbale, Lira, Kisoro, Rukungiri & Bushenyi) to further understand factors that affect uptake of HPV vaccination and preferred channels of communication for the target audiences.

The next steps include using the information from the desk review and district consultative meetings to finalise the development of the National HPV Communication Strategy; a stakeholder consultative meeting to gather inputs and feedback into the HPV Communication strategy is being planned and the draft National HPV Strategy will be shared Ministry of Health, Ministry of Education and key partners after which the HPV implementation and monitoring plan will be developed.

10. Multimedia HPV campaign (radio, TV, social media, Ureport, mTRAC)

Message development and target audience selection/segmentation will be informed by the EPI Communication Strategy and the HPV communication strategy. The communication strategies and plans will be completed January 2019.

11. HPV Vaccine TA

Working with other partners and through UNEPI guidance, PATH supported efforts to improve HPV vaccination uptake. PATH convened and facilitated engagements between Ministry of Health and Ministry of Education and Sports that sought to engage the education stakeholders at all levels to support HPV vaccination efforts. In line with this, support was provided to finalize the Coverage Improvement Plan that is yet to be implemented awaiting funds release through WHO.

PATH was allocated 2 regions of sub-national support for HPV, i.e., Mbarara and Kabale regions that have a total of 14 districts. During the October Child Health Days, PATH supported a team of supervisors from UNEPI and Ministry of Education and Sports to support 8 districts from the same regions on HPV vaccination uptake and improvement. The week-long activity commenced with a half-day workshop with district representatives from Health and Education to review district performance, share lessons and challenges across districts and develop concrete action plans and performance targets for individual districts.

JSI wrote and submitted a proposal to Gavi through the Uganda EPI program manager. Comments from Gavi were received October 2018, JSI is processing responses.

12. Rota virus vaccine introduction

On 26th June 2018 the Government of Uganda in conjunction with UNICEF, WHO, Gavi, and other partners, officially launched Rotavirus vaccine into the routine immunization schedule to protect children from Rotavirus infection. Rotavirus diarrhoea is among the top ten causes of morbidity in Uganda. Rotavirus disease accounts for almost 40 per cent of all diarrheal cases in Uganda with an estimated 10,637 children under-5 years of age dying annually. The introduction was timely to strengthen the integrated Global Action Plan for the Prevention and Control of Pneumonia and Diarrhea strategy to reduce the morbidity and mortality associated with the severe rotavirus diarrhea. The introduction was also an opportunity to strengthen routine immunization in the country. From June 2018 to September 2018, 612,012 and 251,733 children under 1 year have been reached with Rota1 and Rota2 vaccination respectively. Complete Rotavirus report is under review by MoH before dissemination.

13. Last Mile Delivery Pilot:

UNEPI in collaboration with National Medical Stores and with funding from GAVI is conducting the Last Mile delivery Pilot through a private Logistics Service Provider (LSP), Freight in Time/UPS. UNEPI and NMS with support from Clinton Health Access Initiative provided oversight and coordination of the 18-month pilot that kicked off with preparatory meetings in May 2018. Through the Pilot, FIT/UPS is conducting delivery of vaccines from the district to the health facility level in 3 districts (Wakiso, Nakaseke and Nakasongola) over a period of 18 months.

A project management team supported by CHAI was constituted to provide oversight and coordination for the pilot. The PMT consisted of UNEPI, NMS, FIT, and partner representatives. To date, the PMT has conducted 11 bi weekly meetings, 3 support supervision visits and maintained key documents to ensure successful implementation of the pilot. These documents include a project implementation plan to track progress against key activities and a risk mitigation matrix file to take stock of all risks that may threaten implementation and strategies to address these risks throughout the pilot.

A baseline assessment was conducted in July 2018 by CHAI and showed the following key findings:

- A total of 164 health facilities from 3 pilot districts were assessed

- At the time of visit, none of the 3 districts had all 9 vaccines in stock in the fridge. The average length of stock out days was 12 days over the past 30-day period
- HPV, Rota, bOPV and Measles had the lowest stock availability rates at the last mile facilities visited. PENTA, PCV and Td had the highest stock availability rates
- All Cold chain equipment within the pilot facilities was reported as functional at the time of the visit
- The total cost of the existing last mile delivery system was valued at ~26,000USD, with recurrent costs accounting for the largest cost driver at 53% of total costs. The average cost per facility was estimated at ~5USD. Of the total cost, facility transportation pick-up cost of vaccines accounted for least cost proportion at 3%, while labour and maintenance accounted for key cost drivers at 37% and 31% respectively.
- The majority of facilities 74%(n=164) reported picking vaccines from the DVS. Only 4% (n=164) of facilities direct district-delivery of vaccines to health facilities. 22% (n=164) reported picking vaccines from another health facility.
- Only 16% (27/164) were aware of the last mile delivery pilot project by the time of the baseline data collection and the majority of this proportion were from Wakiso district. 68% (112/164) of respondents reported having received vaccine management training in the past one year, while 32% (52/164) had not. Among the 52 respondents, 40/52 had received training at some other point in their provision of immunization service. Nakasongola district had the highest proportion of respondents who reported receiving vaccine management training in the past year at 85% (29/34) while Nakaseke reported the lowest proportion at 58% (15/26)

Following the baseline assessment FIT/UPS has worked with the district health teams and the project management team to implement key activities and address key risks in order to ensure successful implementation. Key activities included conducting preparatory engagement meetings with the districts and health facility staff in preparation for launch, conducting trainings for both UNEPI staff on the logistics management information systems (Logisitimo). Conducting training of district and health facility staff, deployments of transportation systems and kicking off distribution of vaccines. FIT/UPS has conducted distribution of vaccines for 3 cycles since the kick off the pilot.

14. Multi-Antigen campaign in 11 refugee hosting districts

Gavi provided support through UNICEF, for the Multi-Antigen campaign in 11 districts, aiming at reducing morbidity and mortality from vaccine preventable diseases among children under 5 years living in refugee settlements and hosting communities. Round 1 was conducted from 17th November to 23rd November 2018 in 7 districts.

Ministry of health with support from UN agencies have developed a Health Sector Integrated Refugee Response Plan (IRRP) which will ensure full integration of comprehensive primary health care services for refugees into national and local government systems. Health partners will continue to enhance coordination and inter-sectoral collaboration; strengthen the provision of equitable, safe, quality and sustainable health services in refugee-hosting districts, both for new refugee arrivals and long-term refugees; and reinforce health systems in refugee-hosting areas.

UNICEF received funds from Gavi in 2018 to support the implementation of the multi-antigen campaign in 11 refugee hosting districts. The campaign for 7 out of 11 districts started on 17-23 November 2018. Kampala has received funding and is in process of implementing the vaccination. The remaining 3 districts have accountability issues of previous UNICEF disbursed and utilised funds. UNICEF is working with the districts to improve financial accountability before disbursement of the funds. We highly appreciate Gavi's agreement to extend the funding duration to cover the first half of 2019. This will allow MoH and UNICEF to ensure monitoring and document key success and lessons learned for future scale up/implementation and system strengthening in Uganda.

15. Technical assistance with support from other sources – other than Gavi

JSI under the SS4RI and MCSP projects supported 24 districts (Kanungu, Butaleja, Mitooma, Ntungamo, Mbarara, Bushenyi, Sheema, Kibuku, Bulambuli, Pallisa, Butebo, Mayuge, Luuka, Kaliro, Buikwe, Nakaseke, Butambala, Kalungu, Bukomansimbi, Apac, Kole, Oyam, Otuke, and Alebtong) to roll out the RED/C strategy through adding Quality improvement (REC-QI approach) focusing on planning at HF (REC micro plans) & district level, Support supervision, data use for Action through technical support to HFs and district plus regular meetings to review performance at HF and district levels, linking services with the communities including engagement of none

health EPI stakeholders and establishment of RI Quality Work improvement teams involving VHTs at HFs and supporting Routine data quality self-assessment and improvement at the source (immunization sessions & HF). Through these activities, districts and health facilities could clearly identify ALL communities in the district (with & those without inequities) and strategically assigned each community to a health facility for service delivery, thus establishing HF and Immunization outreaches target populations for effective planning, implementation, monitoring and following up on defaulters and left out. Using a set criteria, JSI under MCSP project funded by USAID, developed 16 Centres of Excellence (Model Health facilities) for Routine Immunization in the following districts: Rwoburunga HCIII in Mitoma district; Kitondo, Nyakyera and Rweikiro HCIII in Ntungamo; Nyabubaare, Buyanja, Kyeizooba and Kakanju HCIII in Bushenyi district, Kakoba HCIII in Mbarara; Bumwambu HCIII and Buginyanyanya HCIII in Bulambuli; Nabuli HCIII in Kibuku; Kaneke HCIII in Pallisa district, Kigandalo HCIV in Mayuge and Nagwere HCIII in Butembo.

A set of six best practices in these Health facilities that enabled them to significantly improve their performance have been documented and they include:

- a. Routine Immunization program for static and outreaches printed and disseminated to all stakeholders including LCs, VHTs, religious leaders.
- b. VHTs register all children in the village and using a tracking tool, track those who have not completed vaccination schedule to ensure they are brought to the session.
- c. Performance review monthly and quarterly at the Health facility by Health workers together with VHTs.
- d. Transparency in use of PHC funds and ensuring 20% of quarterly release is allocated to EPI and is managed by the EPI focal person.
- e. Engagement of Non-health stakeholders such as subcounty chiefs and parish chiefs in monitoring EPI coupled with sub-counties contributing funds from their local revenue to supplement PHC and the in-charge regularly attending subcounty meetings to discuss EPI performance and challenges. A number of sub-counties have come forward to contribute resources to facilities additional outreaches and purchase gas cylinders and megaphones for social mobilisation.
- e. Data validation at end of each EPI session is done to enable Health workers harmonize doses used at the session with children tallied on tally sheet and children recorded in the child register. This helps to improve data quality. Similar Model Health facilities have also been developed in the 10 districts supported by SS4RI and they are used as peer learning centres for the facilities in the same sub-county or HSD.

JSI under the SS4RI and MCSP projects supported one VHT from each village in 24 districts to register children below 1 year and their routine immunization status. Through this exercise, targets for each immunization service delivery point (static & outreach) were established basing on actual village census, data linked to HF child registers for effective monitoring and defaulter tracing and many unimmunized and under immunized children were identified and referred for immunization. VHTs and Parish chiefs also continually follow up these children to ensure completion of the immunisation schedule.

JSI under the SS4RI and MCSP supported districts to engage non-health stakeholders including the CAOs, RDCS, Secretaries for Health, SASs and LC 111 during QRMs to discuss performance and mobilize support from them for RI (including extra resources from government and private). These non health stakeholders have taken up their responsibilities and now provide extra resources, monitor performance and take action e.g. In two districts, district leadership has signed performance contracts with HF in-charges to ensure better leadership and management at that level. Uganda government is considering establishing the position of HF In-charge other than remaining just an assignment to further improve leadership management and accountability at that level.

With funding from Bill & Melinda Gates Foundation, PATH has been able to support UNEPI on specific immunization supply chain management components including; the cold chain capacity enhancement initiatives that trains newly recruited District Cold Chain Technicians on technical and practical cold chain equipment and vaccine management tasks. The technicians spend up to 2 weeks at the central workshop in Kampala and under the guidance and facilitation of UNEPI technicians, are attached to selected health facilities for on-job mentorship and oversight.

PATH has also supported the regional cold chain maintenance work that has leveraged the existing biomedical regional maintenance workshops to support cold chain management in

respective districts. As a member of the CCEOP project management team, PATH has also leveraged BMGF funding to support related activities including health facility assessment and deployment planning. With the same funding, PATH has led initiatives to engage high level policy makers including Members of Parliament to take interest in immunization related work especially on financing and on the ADI. There's been great commitment from MPs to support immunization work, going forward.

5. UPDATE OF FINDINGS FROM PREVIOUS JOINT APPRAISAL

Prioritised actions from previous Joint Appraisal	Current status
1. Program management, planning and financing i. Conduct on site mentorship and coaching on leadership, management and coordination of UNEPI and district managers of immunization services – UNICEF - 40%, WHO - 40%, CHAI (support TOT), JSI-20%	UNICEF <ul style="list-style-type: none"> Conducted LMC training of 41 EPI focal persons from poorly performing HSDs in 41 districts EPI review meeting with EPI Focal persons from 44 districts with inequities in 2017 and 2018 was conducted to review EPI performance and previously agreed upon management indicators
	WHO <ul style="list-style-type: none"> Not yet done, pending revitalisation of HMDC
	JSI <ul style="list-style-type: none"> Did not get PEF funds for LMC, however with support from USAID and Gates foundation conducted LMC training for all health facility in-charges in 17 districts
ii. Reactivate and support the parliamentary immunization forum for resource mobilization and institutionalisation of immunization Act- PATH	PATH: Not done
iii. Consolidate information from assessment to inform the contents of the Act- PATH	PATH: Not done
iv. Support country ownership of the Addis Declaration on Immunisation (ADI) – WHO	WHO: Not done
v. Revitalize the Health Man Power Centre training program for immunization Training Needs WHO	WHO <ul style="list-style-type: none"> A concept note has been developed by WHO. MoH needs to be supported in operationalizing the concept note by selecting the Immunization Champions. This is expected to be concluded by February 2019 A consultant to undertake the revitalization of HMDC has been identified and recruitment process will be finalized by 15th December 2018. The consultants output are the following; <ul style="list-style-type: none"> Baseline assessment report A roadmap for implementation of recommendations of LMC by HMDC Develop a comprehensive proposal on training needs of health workers especially for the EPI program.
2. Service delivery	WHO

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<ul style="list-style-type: none"> Review and update the micro planning tool to improve utilization (HR TA- WHO) 	<ul style="list-style-type: none"> supported MoH to develop a draft Micro-planning tool and Job Aid. Next steps include, Stakeholders meeting that should be convened by the MoH. This meeting will bring together key Departments in the MoH and Partners for their briefing and input in the drafts
<ul style="list-style-type: none"> Conduct nationwide mentorship and supervision to develop/update and utilize REC micro plans including immunization inequity using uniform approach (HR TA- UNICEF-40%, WHO-40% & JSI-20%) 	<p>UNICEF</p> <ul style="list-style-type: none"> Hired consultants who conducted EPI mentorship and supervision in 43 districts. They supported districts including Kampala to develop EPI micro plans to reach more children with immunisation in underserved areas (including urban poor communities and informal settlements). A total of 1,368 health facility micro plans developed, 2,924 Health Workers supervised and oriented on RED/REC/C&E, and a total of 1,368 out of 1,425 health facilities (96%) were supported to develop immunization monitoring charts <p>WHO: Not done This can only be implemented after the approval of the revised micro-planning tool that has been finalized</p>
<ul style="list-style-type: none"> Support development and implementation of the immunization strategy for urban population (WHO & CDC) 	<p>WHO: Not done</p> <ul style="list-style-type: none"> An Urban Immunization WG meeting will be held from 1st to 2nd December in Kampala, to develop the strategy aimed at improving immunization coverage and reducing inequities in urban areas.
<ul style="list-style-type: none"> Conduct an assessment and implementation of the Missed Opportunities of Vaccination (MOV) findings (WHO&CDC) 	<p>WHO:</p> <ul style="list-style-type: none"> A concept note has been developed and TA from HQ has been secured Training is planned for beginning of December 2018
<ul style="list-style-type: none"> Plan and respond for refugees through routine immunization activities and surveillance strengthening- (UNICEF/WHO/Gavi) 	<p>UNICEF:</p> <ul style="list-style-type: none"> MoH and EPI Partners agreed to conduct Multi-Antigen campaign in 11 districts hosting refugees. <ul style="list-style-type: none"> National trainers and supervisors were trained to support the districts Training in 7 districts has been conducted Vaccination campaign conducted in 7 districts on 17th-20th November 2017 Kampala has received funds and is in process of planning to implement the campaign UNICEF is supporting 3 districts who have accountability problems to comply with HACT requirements then disburse the funds Vaccination of refugees is integrated in routine immunisation program within the host districts. <ul style="list-style-type: none"> To cover refugee vaccination requirements, UNICEF regularly procures vaccines and related supplies to supplement the national stocks
<ul style="list-style-type: none"> Strengthen the functions of UNITAG -WHO 	
<ul style="list-style-type: none"> Support districts to deliver HPV within the routine immunization schedule 	<p>WHO:</p> <ul style="list-style-type: none"> Provided technical support in development of HPV coverage improvement plan <p>UNICEF:</p> <ul style="list-style-type: none"> This is ongoing. Meetings with key HPV vaccination stakeholders, including Ministry of Health, Ministry of Education and Implementing Partners have been held

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	<p>regularly. The National HPV Communication strategy is being developed to improve HPV uptake and guide the stakeholders in generating demand for HPV services.</p> <p>PATH</p> <ul style="list-style-type: none"> Supported MoH to engage MoE through a national stakeholders meeting and district level workshops in 14 districts. Provided technical support in development of HPV improvement plan
<ul style="list-style-type: none"> Sensitization of district leadership, care takers and stakeholders on HPV uptake with emphasis on utilizing the school mapping of static and outreach strategies per health facility- (UNICEF - 80% / JSI-20%) 	<p>UNICEF:</p> <ul style="list-style-type: none"> A two-day dialogue meeting of participants from 5 districts with immunisation inequities was conducted on EPI Communication for Routine Immunisation A concept note, plan and budget to rollout this engagement at district level and sub-county level in an additional 55 districts with inequities and high numbers of deprived children has been developed <p>JSI: Never received PEF funding</p>
<ul style="list-style-type: none"> Orient Parent Teachers Association and School management committees on school health focusing on HPV (UNICEF - 80% / JSI-20%) 	<p>UNICEF:</p> <ul style="list-style-type: none"> Pending finalization of the HPV communication plan. The activity is part of the Coverage Improvement Plan which is planned for implementation in early 2019 when schools re-open
<ul style="list-style-type: none"> Conduct reorientation of health workers, managers and VHT on HPV starting with the 2017 polio campaign in 73 districts and focused support on low performing districts (WHO 80% /CHAI-20%) 	<p>WHO:</p>
<ul style="list-style-type: none"> Support implementation of the 2017 HPV PIE recommendations -WHO 	<p>WHO: Not done</p> <ul style="list-style-type: none"> Implementations of the recommendation have been included in the HPV coverage improvement plan
<p>3. Immunisation supply chain and Logistics management</p> <p>i. Operationalize the stock management and cold chain tools and identify platforms for integration (UNICEF, PATH, CHAI) HR -TA</p>	<p>UNICEF:</p> <ul style="list-style-type: none"> Stock management and reporting tools were printed and distributed in all the 122 districts <p>CHAI and PATH</p> <ul style="list-style-type: none"> Provided technical input on the Stock management and reporting tools
<p>ii. Support the implementation of the CCEOP plan (To conduct health facility assessment, monitoring and supervision, developing ODP) UNICEF 70%, PATH 15%, CHAI 15% TA & funds</p>	<p>UNICEF/PATH/CHAI:</p> <ul style="list-style-type: none"> An Operational Development Plan for CCEOP phase 1 implementation was developed A total of 608 fridges were procured and received in-country LM engineering Ltd is distributing, Installing the fridges and training the health workers on equipment use Development of ODP for 2nd phase of CCEOP complete for 2500 fridges
<p>i. Functionalize the regional model of cold chain equipment management (UNICEF, PATH TA-HR)</p> <p>ii.</p>	<p>UNICEF:</p> <ul style="list-style-type: none"> Training of 46 regional cold chain maintenance (RCCM) members done RCCM teams supported to conducted cold chain equipment maintenance in a total of 122 districts

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	<ul style="list-style-type: none"> Conducted 2 national level feedback meetings from the 2 round of support supervision
i. Implement the Disposal plan of obsolete equipment as per GOU legal framework(Funds for disposal)- PATH	PATH: Not done, Funds not received
ii. Support implementation of recommendations of the EVMA – UNICEF-60%, PATH-20%, CHAI-20%	<p>UNICEF</p> <ul style="list-style-type: none"> Supported the establishment of the RCCMT with aim of improving EVM key performance indicators Hired a consultant to support development of stock management and reporting tools Supported the printing of stock management and reporting tools <ul style="list-style-type: none"> Conducted EVM assessment in October 2018 and Improvement plan has been developed, dissemination to be conducted in December 2018. The implementation of improvement plan to be supported in the TCA 2019
iii. Procure and distribute the inner fridge compartments for existing fridges to separate EPI and non-EPI supplies - UNICEF	Not Done: These are not WHO pre-qualified, so UNICEF cannot procure them
4. Social Mobilization:	UNICEF
i. Engaging the non-health stakeholders (CAO, RDC, LC5, district planner, Secretary for Health, district councils, CDOs, etc.) in performance monitoring for immunization (UNICEF-80%, JSI-20%)	<ul style="list-style-type: none"> A two-day dialogue meeting on EPI Communication for Routine Immunisation was conducted for social cultural leaders, political leaders and technical teams from 5 districts with inequities. Communication plans for each district on how to tackle specific routine immunisation communication was developed. A roll out plan for additional 55 districts with inequities and high numbers of deprived children has been developed <p>JSI</p> <ul style="list-style-type: none"> JSI held some district leaders Non Health stakeholders meeting in July 2018 to review commitments made in October 2017 towards EPI support and share progress and lessons learnt toward REC QI implementation.
ii. Support districts to develop, implement and monitor tailored communication plans for routine immunization including risk communication- UNICEF	<p>UNICEF</p> <ul style="list-style-type: none"> Review and update of National EPI Communications strategy has been conducted. The roll out plan is being developed by the consultant to guide the dissemination
5. Vaccine Preventable Disease Surveillance:	WHO
Strengthen Vaccine Preventable Diseases (WHO) Revitalize and regularly monitor the EPI/IDSR Support supervision strategy (supervision, mentorship) - WHO	<ul style="list-style-type: none"> All the 14 Regional Hubs received financial and technical support. This has contributed to the National performance of EPI and IDSR as evidenced by the following indicators: NPFR= 3.09; Timeliness of Reporting= 94% Completeness of reporting= 100%; DPT3 Coverage=
Strengthen the new vaccine sentinel surveillance sites including capacity building in documenting impact of NVs - WHO	<p>WHO</p> <ul style="list-style-type: none"> 10 Coordination meeting to ensure high quality and continuous functioning of surveillance in the sentinel surveillance sites. Collected, analyzed, reviewed and shared with new vaccine sentinel surveillance global network monthly data from the 3 sites for the last 10

	months. Provided feedback about data quality to the surveillance team and laboratory
Strengthen capacity of Health workers to investigate, document and report NNT- WHO	WHO <ul style="list-style-type: none"> A total of 5 NNT cases have been detected and reported in HMIS of which four NNT cases have been investigated by health workers nationwide
Additional significant IRC / HLRP recommendations (if applicable)	Current status

If findings have not been addressed and/or related actions have not taken place, provide a brief explanation and clarify whether this is being prioritised in the new action plan (section 6 below).

No known significant IRC/HLRP recommendation

6. ACTION PLAN: SUMMARY OF FINDINGS, ACTIONS AND RESOURCE/SUPPORT NEEDS IDENTIFIED AND AGREED DURING THE JOINT APPRAISAL

Briefly summarise the **key activities to be implemented next year** with Gavi grant support, including if relevant any introductions for vaccine applications already approved; preparation of new applications, preparation of investment cases for additional vaccines, and/ or plans related to HSS / CCEOP grants.

*In the context of these planned activities and based on the analyses provided in the above sections, describe the five **highest priority findings and actions to be undertaken to enhance the impact of Gavi support or to mitigate potential future risks to programme and grant performance.***

Please indicate if any modifications to Gavi support are being requested, such as:

- Changes to country targets as established earlier, either from the agreed Grant Performance Framework (GPF) or as part of the NVS renewal request submitted by 15 May;
- Plans to change any vaccine presentation or type;
- Plans to use available flexibilities to reallocate budgeted funds to focus on identified priority areas.

Overview of key activities planned for the next year:
 From the analysis of 2018 data and comparing with the previous years, there is an observed stagnation tending to decline of the immunization coverage. District analysis show a remarkable improvement in the districts that various partners have supported. Most of these districts were previously under performing and with immunization inequities. However, 32% of the districts supported are still performing sub optimally. The concern is the districts that were doing well and not supported that have declined in performance. Vaccine stock outs at the service delivery level need to be urgently addressed. Need of resources for sustained community mobilization using the available structures. Leadership, commitment, accountability

Key finding / Action 1	Program management, planning and financing Key constraints contributing to the lower coverage of immunization is the weak management and governance capacity of the health management teams and the EPI supervisors. More specific constraints observed were related to the lack of team work at district level, lack of evidence-based planning and monitoring, and lack of capacities in distribution and management of the stock outs and high absenteeism.
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Joint Appraisal (full JA)

Current response	A total of 37 districts (41 counting Kampala divisions as district) were trained in Leadership, Management and Coordination. EPI review meetings for the 37 districts were conducted and additional 41 EPI health workers from lower level health facilities were trained in LMC. The intervention led to marked improvement in 68 per cent of districts with reduction in immunization inequities and reduction of the un-immunized children to less than 2,000 in each of the districts.
Agreed country actions	<ul style="list-style-type: none"> ○ Scale up of LMC to training of all EPI focal persons (UNICEF/WHO/CHAI) ○ Regular review meetings at all levels involving local leaders and providing feedback and sharing best practices. Conduct exchange learning visits within and outside of the districts (UNICEF/WHO/CHAI) ○ Strengthen the functions of UNITAG/TCC/ICC (WHO/CHAI)
Expected outputs / results	<ul style="list-style-type: none"> ○ Reduction in numbers of unimmunised children through improved planning, implementation and monitoring of immunisation services
Associated timeline	April 2018 to April 2019
Required resources / support	<ul style="list-style-type: none"> ○ TA for consultants ○ Funding for LMC activity implementation
Key finding / Action 2	Service delivery addressing equity and coverage
Current response	<ul style="list-style-type: none"> ○ Follow up of the 37 districts identified with inequities where specific district inequities were identified. Districts were supported to develop health facility based micro plans addressing the indented inequities. Out of the 37 districts 25 have improved and 12 districts still need follow up. Though KCCA still has the largest number of under-immunized children, improvement was observed in the reduction of DPT3-1 dropout rate and the absolute numbers of children reached with immunization services increased
Agreed country actions	<ul style="list-style-type: none"> ○ Analysis of all relevant data at end 2018 to identify districts for follow up with mentoring and implementation (WHO/ UNICEF) ○ Conduct RED-REC-C&E-MOV training, supervision and mentorship with focus on immunisation inequities to reach the target populations and marginalised/high-risk communities. Implementation in $\geq 60\%$ districts (UNICEF/WHO/ CHAI/JSI) ○ Development and implementation of minimum package of health services including immunisation in urban and pri-urban setting to reach marginalised target populations (as per urban health strategy) i.e KCCA, Wakiso, Iganga, Arua (UNICEF)
Expected outputs / results	<ul style="list-style-type: none"> ○ LMC Training reports and Quarterly EPI performance reports on coverage and absolute numbers reached with immunization ○ Reduction in numbers of unimmunised children
Associated timeline	April 2018 to April 2019
Required resources / support	<ul style="list-style-type: none"> ○ TA for consultants ○ Funding for RED/REC/C&E/MOV/Urban settlements activity implementation
Key finding / Action 3	Immunisation supply chain and Logistics management
Current response	<ul style="list-style-type: none"> ● EVMA completed and EVM Improvement Plan developed (EVMIP). Discussions and inputs from Regional Cold Chain Management Teams (RCCMTs) on the EVMA findings and EVMIP have been completed and TOR reviewed and deliverables clearly defined and reporting requirements streamlined. The EVMA findings and EVM IP dissemination meeting for the district cold chain technicians and assistants is planned for December 2018. ● CCEOP ODP phase1 on going for 608 cold chain equipment installation.

Agreed country actions	<ul style="list-style-type: none"> Support implementation of the EVMA Improvement plan. Wastage and temperature monitoring; procurement and on job mentoring on proper use of fridge tags; Build capacity to use data in the supply chain management specifically in districts and health facilities (UNICEF/CHAI/PATH) Support to the CCEOP Program Management Team to monitor and supervise 1st phase installations and 2nd phase CCEOP implementation in 2019 (UNICEF/CHAI/PATH) Conduct hands on practical training of Regional Biomedical Engineers on Efficient Vaccine Management (UNICEF) Conduct capacity cold chain and vaccine management enhancement for selected districts (UNICEF) Support and expand the Last mile delivery of vaccines (CHAI) Design cold chain curriculum for training institutions, on job training and mentorship for the health workers (PATH/CHAI)
Expected outputs / results	<ul style="list-style-type: none"> Quarterly review and update of the EVMIP; Regular reporting of the EVM KPIs including vaccine wastage and temperature monitoring CCEOP phase 2 Operational Deployment plan report Report on training, supervision and mentorship
Associated timeline	April 2018 to April 2019
Required resources / support	TA and funding for procurement
Key finding / Action 4	Immunisation Mobilisation and Demand generation
Current response	EPI Communication strategy and HPV communication plan have been developed. Implementation plans are under development in preparation for rollout.
Agreed country actions	<ul style="list-style-type: none"> Dissemination of the updated EPI communication strategy and HPV communication plan to guide the stake holders for generation demand; roll out of the EPI communication strategy with special focus on areas with large numbers of unimmunized children and in urban and peri urban communities; use local community structures to generate demand for EPI services including megaphones use in selected areas (UNICEF) Engaging the non-health stakeholders (Cultural leaders, CAO, RDC, LC5, district planner, Secretary for Health, district councils, CDOs, etc.) with special focus in the 61 districts identified with inequities (UNICEF/JSI). Airing of comprehensive media campaign for routine and HPV immunisation (UNICEF)
Expected outputs / results	Increased demand for immunisation services
Associated timeline	April 2018 to April 2019
Required resources / support	TA (Consultancy); Funds to implement the activities
Key finding / Action 5	Data and surveillance: Suboptimal data management and reporting, Low detection and reporting for notifiable vaccine Preventable Diseases (AEFI, measles, NNT) through case-based surveillance
Current response	Nationwide Implementation of immunisation data quality improvement strategy focusing on identification and solving of data quality gaps at all levels of the health system.
Agreed country actions	<ul style="list-style-type: none"> Finalize the strategic data improvement plan (DIP), Update cMYP, launch DIP, develop annual DIP and Implement plan (WHO, PATH, CDC, CHAI) Provide quality training, supportive supervision and mentorship on data handling and use for action at the point of data generation through use of innovative technologies (WHO, CDC-AFENET)

Expected outputs/ results	Innovative technologies rollout to all districts in one region Improved immunisation data quality and data use for action at all levels
Associated timeline	April 2018 to April 2019
Required resources / support	TA (Consultancy); Funds to implement the activities

7. JOINT APPRAISAL PROCESS, ENDORSEMENT BY THE NATIONAL COORDINATION FORUM (ICC, HSCC OR EQUIVALENT) AND ADDITIONAL COMMENTS

- Does the national Coordination Forum (ICC, HSCC or equivalent) meet the Gavi requirements (please refer to <http://www.gavi.org/support/coordination/> for the requirements)?
- Briefly describe how the Joint Appraisal was reviewed, discussed and endorsed by the relevant national Coordination Forum (ICC, HSCC or equivalent), including key discussion points, attendees, key recommendations and decisions, and whether the quorum was met. Alternatively, share the meeting minutes outlining these points.
- If applicable, provide any additional comments from the Ministry of Health, Gavi Alliance partners, or other stakeholders.

UNEPI led the coordination and chairing of the JA. The meetings were attended by MoH-UNEPI, WHO, UNICEF, CHAI, JSI, CDC-AFENET and PATH. In all the meetings it was all inclusive to ensure all components delivered during the PEF period are included. The refined report was shared with global partners including Gavi, WHO regional office, ESA/IST, UNICEF regional office and in country partners for their review, comments and input in preparation for the workshop planned for November 26th – 29th 2018.

Date	Venue	Key comments
August 6 th 2018	MOH-UNEPI	Distribute sections to the different focal persons
August 15 th 2018	MOH-UNEPI	Discussion of program outputs
October 17, 2018	MOH-UNEPI	Start report writing
November 07, 2018	WHO	Discussion of draft report
November 14, 2018	WHO	Discussion of draft report
November 15, 2018	MOH-UNEPI	Discussion of draft report
November 16, 2018	MoH-UNEPI	Share report with external partners

8. ANNEX: Compliance with Gavi reporting requirements

Please confirm the status of reporting to Gavi, indicating whether the following reports have been uploaded onto the Country Portal. **It is important to note that in the case that key reporting requirements (marked with *) are not complied with, Gavi support will not be reviewed for renewal.**

	Yes	No	Not applicable
Grant Performance Framework (GPF) * reporting against all due indicators	√		
Financial Reports *	√		
Periodic financial reports	√		
Annual financial statement	√		
Annual financial audit report	√		
End of year stock level report (which is normally provided by 15 May as part of the vaccine renewal request) *	√		
Campaign reports *			
Supplementary Immunisation Activity technical report	√		
Campaign coverage survey report			√
Immunisation financing and expenditure information			
Data quality and survey reporting			
Annual data quality desk review	√		
Data improvement plan (DIP)	√		
Progress report on data improvement plan implementation	√		
In-depth data assessment (conducted in the last five years)	√		
Nationally representative coverage survey (conducted in the last five years)	√		
Annual progress update on the Effective Vaccine Management (EVM) improvement plan			
CCEOP: updated CCE inventory	√		
Post Introduction Evaluation (PIE)	√		
Measles & rubella situation analysis and 5-year plan	√		
Operational plan for the immunisation programme	√		
HSS end of grant evaluation report	√		
HPV specific reports	√		
Reporting by partners on TCA and PEF functions			

In case any of the required reporting documents is not available at the time of the Joint Appraisal, provide information when the missing document/information will be provided.

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