



RESOURCE TRACKING FOR IMMUNIZATION IN UGANDA

2014/15 & 2015/16



GAVI EVALUATION

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ACRONMYS

ACRONYM

AFENET	African Field Epidemiology Network
BCG	bacille Calmette-Guérin (tuberculosis vaccine)
CDC	Center for Disease Control
CMYP	Costed Multi Year Plan
CPI	Consumer Price Index
DHO	District Health Officer
DHT	District Health Team
DTP	Diphtheria, Tetanus and Pertussis vaccine
EPI	Expanded Program on Immunization
FA	Financing Agent
FS	Financing Source
GAVI	Global Alliance for Vaccines and Immunization
GOU	Government of Uganda
HC	Health Care Function
HC / HF	Health Center / Health Facility
HEPB	Hepatitis B vaccine
HIB	Haemophilus influenza b
HP	Health Provider
HPAC	Health Policy Advisory Committee
HSSP	Health Sector Strategic Plan
IFMIS	Integrated Financial Management Information System
MCHIP	Maternal and Child Health Integrated Program
MOFPED	Ministry of Finance Planning and Economic Development
MOH	Ministry of Health
NGO	Non-Governmental Organization
NHA	National Health Accounts
NMS	National Medical Stores
OECD	Organization for Economic Co-operation and Development
PCV	Pneumococcal Conjugate Vaccine
PHC	Primary Health Care
PNFP	Private Not For Profit
RED	Reaching Every District approach
RI	Routine immunization
SHA	System Health Account
SIA	Supplementary Immunization Activities
UBOS	Uganda Bureau Of Statistics

UNEPI	Uganda National Expanded Program on Immunization
USAID	U. S. Agency for International Development
VHT	Village Health Team
WHO	World Health Organization

1. Executive summary

Immunization for the prevention of childhood illness is one of the critical interventions for the prevention of under-five mortality. Persistent weaknesses have been noted in securing accurate, reliable and complete data on the internal and external investments in immunization commodities and services, required to accurately inform or guide planning and decision-making by governments and partners. Resource tracking tools are important because they allow for the generation of valuable information on the flow of funds from the source to the beneficiaries. The overall objective of the resource tracking study is to (a) *contribute to the understanding of the magnitude of resources available to support immunization services in Uganda* (resource envelope) in two FYs 2014/15 & 2015/16, and (b) *undertake a detailed immunization expenditure analysis at sub-national level*. This assessment is a follow-on study from the previous resource tracking studies done for the years 2011/12, 2012/13 and 2013/14.

Methods

Similar to the methods applied in the previous resource tracking assignments, a resource mapping methodology was used. This approach covers the mapping of both financial and non-financial (commodity and equipment) resources for immunization. Estimation of government contribution can be largely under-estimated if one considers the annual amounts government spends on vaccines and operational costs alone, and does not take into consideration the huge investment in human resources and infrastructure (necessary for service delivery). Fortunately, a recently concluded costing study for immunization services in Uganda made reasonably good effort in estimating Government contribution to salaries for immunization service delivery for the year 2015/16: "*Costing of Immunization Service Delivery in Uganda*" (WHO, 2015). The System of Health Accounts (SHA) 2011 framework (Figure 2) was used for the financial mapping: financing sources, agents, service providers, functions and line items were coded using the SHA 2011 classification system.

Findings for financial mapping for immunization activities at National level

To estimate the total envelope of immunization funds the following resources were summed up: (a) the mapping of the measured resource envelope for immunization, plus, Government of Uganda's expenditure on salaried labor and proportion of PHC funds spent on immunization at sub national level. In other words, the total resource envelope comprises:

Total resource envelope = Donor funds + GoU (contribution at national level) + GoU (PHC proportion for immunization and % salaried labor attributed to immunization).

The total resource envelope for immunization funding was found to be UGX 216.2 billion in 2014/15 and UGX 284.1 billion in FY 2015/16. We note a remarkable 31% increment in the resource envelope between 2014/15 and 2015/16. This increment in funding is largely attributed to the increase in GAVI funding (increased by 49% between the two years) and also due to the introduction of new vaccines. Further, GOU's contribution also increased by 11% between the two years. GAVI resources form the biggest contribution to the immunization resource envelope, providing UGX 124.1 billion in 2014/15 and UGX 184.4 billion in 2015/16. This accounts for 57.4% and 64.9% in 2014/15 and 2015/16 respectively of total funding (Table 1). GOU makes the second biggest contribution, providing UGX 48.5 billion in 2014/15 (i.e. 22.4% of total resource envelope) and UGX 54.0 billion in 2015/16 (i.e. 19.0% of the total resource envelope). The remaining 20.2% and 16.1% in 2014/15 and 2015/16

respectively came from other development partners (including WHO, UNICEF and international NGOs).

The bulk of the funds (over 80% of total funding) were managed by public entities, which include NMS, MOH and UNEPI. UNICEF also managed a considerable amount (14% of total funds in 2014/15 and 12% in 2015/16) given that UNICEF handles all the vaccine procurements for the country. Majority of service provision is done by public entities, which include: NMS, MOH, UNEPI, public health facilities at district level and District Health Offices. The biggest proportion of the funds is spent on facility-based routine immunization and this includes expenditure on outreaches (i.e. 79% and 81% in 2014/15 and 2015/16 respectively).

A five-year simple trends analysis shows that the resource envelope for immunization has been progressively increasing. This increase is mainly attributed to the contribution by developing partners who have supported various immunization activities relating to new vaccine introduction, mass campaigns, routine immunization activities, and others. In absolute terms, the resource envelope has increased two-fold from UGX 70.5 billion in 2011/12 to UGX 284.1 billion in 2015/16. The biggest increment in funding observed was observed in FY 2014/15 and 2015/16. GAVI resources increased remarkably in these two financial years and this is attributed to the lifting of the ban on GAVI funding as well as new vaccine introduction. GOU was the greatest contributor towards immunization activities in the first three years (2011/12 to 2013/14) but GAVI took over as the biggest contributor in the last two years of the five-year period. This trend raises sustainability concerns given the unpredictability and time-limited nature of donor support.

Findings for expenditure analysis and assessment of flow of funds for immunization activities at sub national level

Seven districts were selected for case studies, to address the second sub-study of the resource-tracking component of the GAVI evaluation. The main objective of the district case studies was to conduct an immunization expenditure analysis, as well as to comprehensively describe and assess bottleneck in the process of flow of funds for immunization from national level to the sub-national level.

From the 7 district case studies, the three most important bottlenecks are: (a) insufficient funds which was reported by 88% of the 24 respondents (b) delay of funds was reported by 92% of the 24 visited sites and (c) inadequate transport means which was reported by 54% of the 24 sampled sites.

The expenditure analysis at the DHO level highlighted that on average, a DHO spends about 15% of its total annual resources on EPI activities. However, in terms of the absolute amounts, the 15% represents about UGX 5 million annually per district¹, which is very insufficient when spread over a year. Furthermore, looking at each of the districts individually, we find that more than half of the sampled districts (4 out of 7 districts) are allocating less than 15% of their total PHC funds to support immunization activities. This finding has been consistent over the past 5 years. Additionally, this finding is irreconcilable with the fact that immunization funding has increased two-fold over the last

¹ Funds per district refer to the amount allocated to the District Health Office activities only excluding that of the Health Sub Districts and health facilities.

5 years. This implies that perhaps the increase in funding at National level doesn't necessarily trickle down to the sub-national, where the bulk of immunization service delivery happens.

Expenditure analysis at health facility level showed that annually, average expenditure for immunization across all levels of care in the sample was 5% in 2014/15 and 6% in 2015/16, which is a slight reduction from the previous study which reported 8% of the total PHC received in 2013/14. This highlights that health facilities are still critically underfunded bearing in mind that government health facilities provide the bulk of immunization services seen in the financial tracking section. Furthermore, the analysis found that by program area; the bulk of the immunization resources at health facility level were used for outreaches accounting for 87% (FY 2014/15) and 88% (FY 2015/16) of the total PHC funds for immunization activities in the 24 sampled health facilities. Social mobilization and collection of vaccines separately accounted for 7% (FY 2014/15) and 6% (FY2015/16) of PHC funds in the sampled facilities.

2. Background

2.1 Overview of the EPI program in Uganda

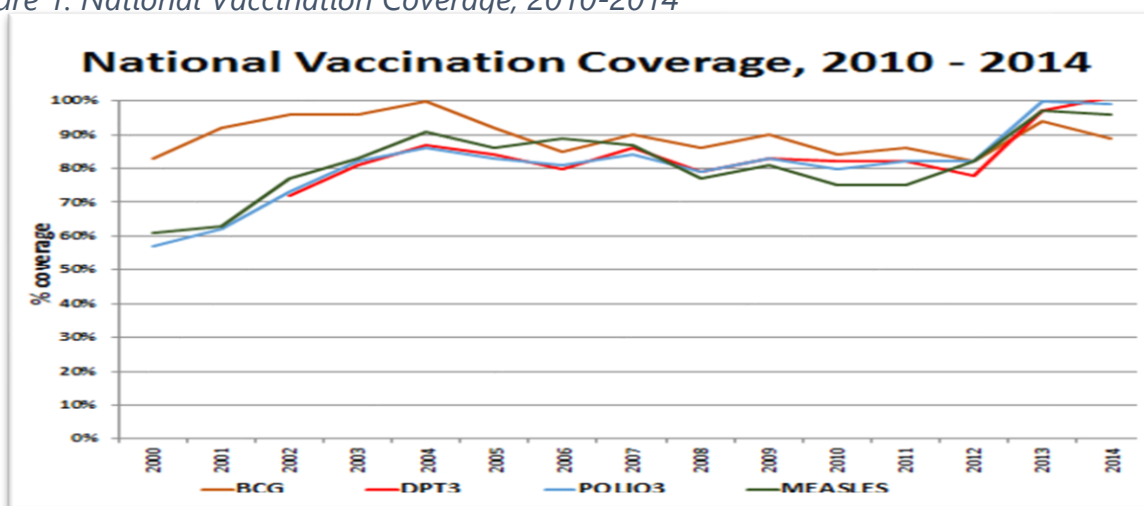
Immunization is a cost effective intervention that plays an important role in not only controlling but also elimination of vaccine preventable diseases. Globally, immunization is estimated to avert approximately 2-3 million deaths each year, and, increasingly the hard-to reach and vulnerable populations have access to immunization services (1). On the global agenda, immunization is a key intervention especially towards the Sustainable Development Goal (SDG) 3 which seeks to end preventable deaths of newborns and children under 5 years of age and specifically to reduce under-5 mortalities to at least as low as 25 per 1000 live births (2).

Notably, the Global Vaccine Action Plan (GVAP) highlights the need to improve health by extending the full benefits of immunization to all people, regardless of where they are born, who they are, or where they live by 2020 (3). Specifically, in Uganda, immunization is one of the key child health interventions and it is part of the Uganda Minimum Health Care Package (4). Management of Uganda's immunization services is managed by the Uganda National Expanded Program on Immunization (UNEPI), which was established in 1983 with a goal of ensuring that every child and high-risk group is fully vaccinated with high quality and effective vaccines against the target diseases and recommended strategies (4). UNEPI is responsible for policy, standards and priority setting, capacity building, coordinating with other immunization partners, resource mobilization, program monitoring, and the provision of technical support supervision to the districts (5). UNEPI has four main focus areas which include: 1) Strengthening routine immunization, 2) conducting Supplemental Immunization Activities (SIAs) to achieve global vaccination targets, 3) Sustaining a sensitive diseases surveillance system within the Integrated Disease Surveillance and Response Framework (IDSR), and to 4) Introduce new vaccines into the routine schedule to expand the vaccination beyond the traditional target group (4). UNEPI links with other MOH departments and divisions through Technical Working Groups, as well as Senior and Top Management committees.

At the district level, the District Health Office (DHO) is responsible for planning, implementation, management, delivery, supervision and monitoring of EPI services (5). The Primary Health Care (PHC) grant from central government and the financial support from donors is used to implement and facilitate immunization activities at the district level and at health facilities (5). Health facilities provide immunization services as part of their routine health care services and this is in addition to the community-based outreaches.

The Expanded Program on Immunization (EPI) utilizes a Country Multi Year Plan (cMYP) to guide implementation of immunization services nationally. This plan was revised in 2015 to guide implementation over the next 5 years from 2016-2020. The cMYP focuses on the main components of the immunization system while still aligning its strategies towards the national priorities for the immunization program. The priorities set out in the (cMYP) are line with the GVAP and the Global Polio Eradication Plan (PEI). For this reason, Uganda has made progress towards achieving the targets in the GVAP by: Improving immunization, being certified as polio free in 2006, elimination of maternal neonatal tetanus, and development of a measles strategy (4). Additionally, Uganda has introduced new 3 antigens into the routine immunization schedule since 2013 and these include: Pneumococcal Conjugate Vaccine (PCV), Human Papilloma Virus Vaccine (HPV), and Injectable Polio Vaccine (IPV). By 2018, the country hopes to have introduced additional antigens including Rota Virus, Meningitis A, Yellow fever, and the Measles Rubella vaccine. Uganda’s immunization schedule as of 2016 is shown in Annex 1. Further, immunization coverage as per the 2014 estimates has also improved for DPT 3 (78% in 2012 to 102% in 2014), Polio 3 (82% in 2012 to 99% in 2014) and Measles (82% in 2012 to 96% in 2014) (4). Trends in national immunization coverage are shown in Figure 1.

Figure 1: National Vaccination Coverage, 2010-2014



Source: Uganda Comprehensive EPI Report, 2014

Despite the improvement in immunization coverage since 2010, Uganda has faced outbreaks of polio, measles, yellow fever, and hepatitis B (4). These events have highlighted the existing gaps in the delivery of immunization service delivery in the country. As stated in the cMYP, several challenges are still faced by the EPI program including but not limited to:

- Over stretched UNEPI national management team.

- Lack of EPI Reach Every Child micro-plans for health facilities.
- Sub-optimal use of immunisation data to guide action.
- Inadequate cold chain technicians at district level leading to no cold chain inventories and maintenance.
- Vaccine stock outs at district level.
- Gaps in vaccine management at both district and health facility level.
- Inadequate knowledge of Vaccine Preventable Diseases to enhance surveillance.
- 40% of health facilities do not have updated data collection tools including (VIMCBs, child health cards, tally sheets and immunisation registers).

Following the various challenges existing in immunization service delivery, the Global Alliance for Vaccines and Immunization (GAVI) sponsored a prospective Full Country Evaluation (FCE) in four countries: Bangladesh, Mozambique, Uganda and Zambia for four years (2013-2016). The goal of the GAVI Full Country Evaluations is to understand and quantify the barriers to, as well as drivers of: immunization program improvement, including the financial contribution of the GAVI Alliance. A sub-study under the FCE aims to track immunization spending from GAVI and other sources to identify the key bottlenecks affecting flow of funds but also to measure the financial envelope available for immunization activities.

2.2 Financing and Resource Tracking for Immunization

Resource tracking tools are important because they enable the generation of valuable information, which can help improve resource allocation, predictability, and sustainability of financing in the health sector and elsewhere. Additionally, financial flow data is important for planning and decision-making processes by governments and development partners. The main method used to track resources in the health sector is the System of Health Accounts (SHA), which was formally called the National Health Accounts. The SHA uses a framework that systematically describes financial flows related to health care with an aim of describing the health care from an expenditure perspective for both international and national purposes (6). In the latest SHA, WHO and OECD have provided standard approaches for the classification of (a) financial sources, (b) financing mechanisms, (c) health care functions and (d) agencies that use the funds to provide health services. Despite its importance, resource tracking in Low and Middle Income countries (LMICs) still grapples with gaps in securing accurate, reliable, and complete data on health services and commodities. Specific to immunization, systems set in place to track the flow of resources to the point of service delivery is key in monitoring expenditure pattern and also identifying bottlenecks to effective use of resources. Furthermore, the expenditure data is vital in planning for future immunization financing especially in terms of sustainability of existing and new vaccine introduction. Immunization funds in Uganda have been tracked over the last 5 years using the standard SHA methodology. From the previous resource tracking exercises, the total immunization expenditure in Uganda increased by 70% between FY 2009/10 (UGX 51.7 billion) and FY 2013/14 (UGX 87.7 billion) (7). This finding is supported by the recent WHO/UNICEF Joint Reporting Form which reported that Government of Uganda's (GOU) spending on routine immunization per surviving infant increased from \$3 in 2006 to \$11 in 2014 (8). Additionally, the last GAVI evaluation resource tracking study covering FY 2013/14 highlighted that GOU is the largest contributor for immunization activities providing 48.8% of the resource envelope (Including its contribution to salaried labour and PHC). When GOU's contribution to salaried labour

and PHC funds are excluded, GAVI becomes the largest contributor to immunization activities contributing 41.2% of the total resource envelope in FY 2013/14.

2.3 Rationale and study objectives

The GAVI FCE has conducted two resource tracking exercises covering 3 fiscal years including 2011/12, 2012/13 and 2013/14. The current resource tracking exercise covers 2 fiscal years: 2014/15 and 2015/16. Drawing from previous resource tracking exercises, the study aims to answer the following research questions:

1. Where do resources for immunisation activities come from? How much does each source provide? And who manages the resources?
2. How do the different sources channel their resource contributions to different implementing units?
3. What are the enablers or bottlenecks to effective flow of funds at both national and sub-national level, along the cascade of the channeling of funds?
4. How much do health facilities receive for immunisation? How much is actually spent? What do the facilities spend this money on?

The overall objective of the resource tracking study is to understand the magnitude of resources available to support immunization services in Uganda, the channeling of resources as well as identify the enablers or bottlenecks to effective flow of funds both at national and sub-national level. Specifically, the objectives of this study were:

1. To measure and describe the financial envelope for immunization activities in Uganda for FY 2014/2015 and 2015/2016 using System of Health Accounts (SHA) framework.
2. To identify enablers and bottlenecks of effective flow of funds.
3. To conduct an immunization expenditure analysis at sub-national level.
4. To measure and describe the resources received and utilised at sub-national level for Fiscal years 2014/15 and 2015/16.
5. To present a trends analysis for immunization expenditure from 2012/13 to 2015/16.

To answer these questions, the scope of work was divided into two main sub-studies, namely: (a) *mapping of financial resources* at national level, and (b) *expenditure analysis* at sub-national level. The methodology and results for each of these sub-studies is presented in sections 3 and 4, respectively.

3. Methods

The present resource tracking exercise for FYs 2014/15 and 2015/16 used similar methods as those used for the last two resource tracking exercises under the GAVI Full Country Evaluation (covering FY2011/12, FY 2012/13 and FY 2013/14).

3.1 Financial mapping for immunization activities at National level

3.1.1 Conceptual Framework

To quantify the total resource envelop for immunization, a resource mapping methodology was used. This approach covers the mapping of both financial and non-financial (commodity and equipment) resources for immunization. This approach restricts itself to collecting information from all known sources of funding, managers (financing agents) of these funds as well as providers of services using the funds (service providers). Financial data were collected from various immunization stakeholders (Annex 2) through conducting key informant interviews. The scope of the analysis included all public and external sources of financing or commodities, and covered the financial years of 2014/15 and 2015/16.

The analysis used the System of Health Accounts (SHA) 2011 framework (Figure 2) for the financial mapping sub-study. Financing sources, agents, service providers, functions, and line items were coded using the SHA 2011 classification system. Further, the SHA code for the health care functions for immunization (HC.6.2) was further disaggregated to allow for greater detail on the types of immunization activities.

Figure 2: SHA (2011) Financial Framework

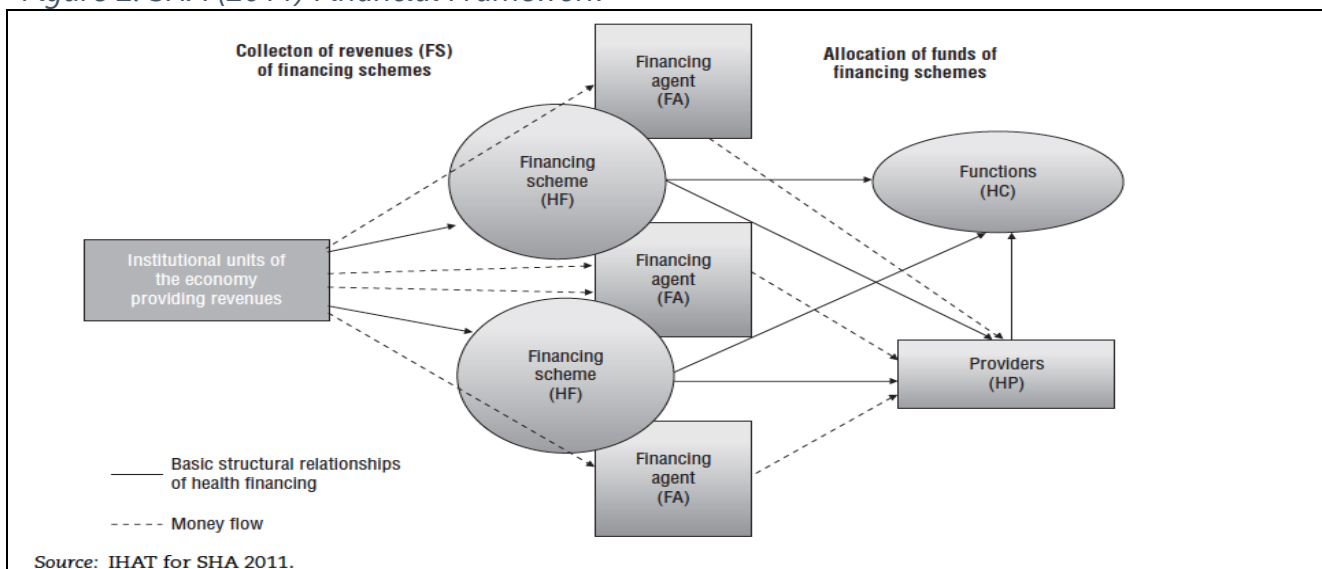
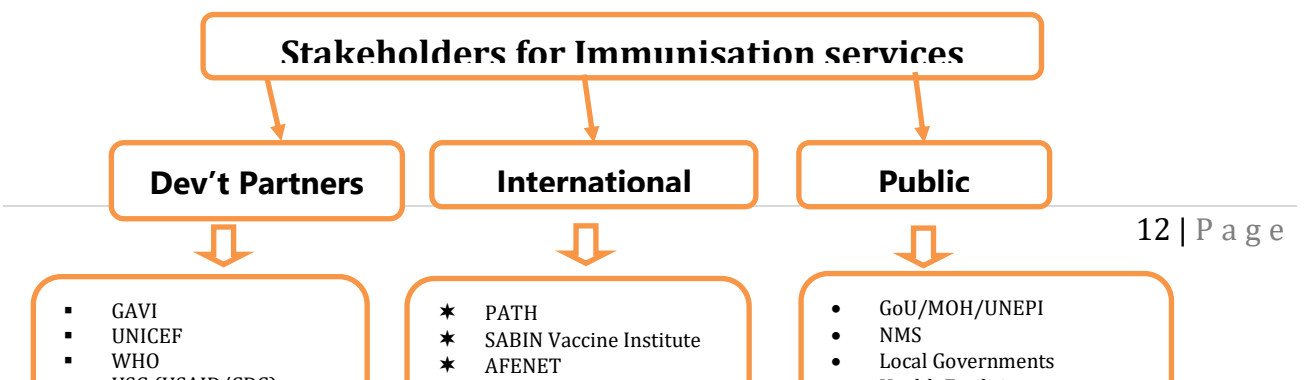


Figure 3 provides an overview of the conceptual framework for the financial mapping sub-study. After identifying the key immunization stakeholders in Uganda, they were broadly categorized as (a) public entities, (b) development partners, and (c) international non-governmental organizations. Interviews were conducted with all stakeholders. After, the stakeholders were then as either (a) sources, or (b) financing agents, or (c) service providers, in line with the international SHA classifications.

Figure 3: Conceptual Framework for mapping of stakeholders for immunization



3.1.2 Tools for data collection

Three data extraction tools were developed and used for this sub-study. The tools were adopted from similar exercises in Uganda (Guthrie et al 2014) and the two previous resource tracking exercises under the GAVI FCE. The tools used were: (a) the Source of Funds tool, and (b) the Financing Agents tool and (c) the Service Providers tool. The data collection team was trained over a 2-day period on the SHA methodology and in the use of the data collection tools. Being a retrospective quantitative study, this exercise mainly relied on a combination of face-to-face Key Informant Interviews (KIIs), using the structured data collection tools, and review of documents provided by respondents. The data collection team administered the data collection tools and extracted all the data themselves. Annex 2 provides a list of all the respondents at national level. The selection of districts is described

3.1.3 Data Entry and Analysis

Data were first captured in the hard copies of the data collection tools. Data were then entered into specially designed Excel® spreadsheets that would allow for easy aggregation. Level 1 data cleaning and verification was done on data entered in the Excel spreadsheets. Thereafter, data were entered into an Excel-based analysis screen and coded using the SHA (2011) codes. Annex 5 provides the detailed codes and for the different financing categories.

3.1.4 Estimation of GOU's contribution to support immunization activities at sub national level

Estimation of government contribution can be largely under-estimated if one considers the annual amounts GOU spends on vaccines and operational costs alone, and does not take into consideration the huge investment in human resources (responsible for service delivery) and other infrastructure. The estimation of funding for salaries was outside the scope of this work, given the required level of effort to estimate and apportion staff time to immunization service provision, within a setting of integrated service delivery. Fortunately, a previous costing study made good effort in estimating Government's contribution to salaries for immunization service delivery for the year 2010/11: "*Analysis of the Costing and Financing of Routine Immunization and New Vaccine Introduction in Uganda*" (Guthrie et al. 2014). In the present study, we used the GOU's contribution to support immunization (salaried labor and PHC funds) estimated by Guthrie et al. 2014.

3.2 Expenditure analysis and assessment of flow of funds for immunization activities at sub national level

3.2.1 Selection of districts

The main objective of the sub national sub-study was to conduct an immunization expenditure analysis at the district level, which mainly involved estimating and describing what EPI resources were received and how they are used. Sampling was guided by RED categorization classification of districts. That is, *poor performing* versus *well performing* districts in the 5 regions of the country namely: North, West, South, Central and East. Due to resource and time constraints, 7 districts were sampled in order to address the second sub-study of the resource-tracking component. The following districts were sampled from the different regions; (a) **North:** Lamwo and Abim, (b) **West:** Masindi, (c) **South:** Mitooma, (d) **Central:** Nakaseke, (e) **East:** Kween and Iganga. In each of the sampled districts, the District Health Office (DHO) was studied, and three health facilities -- a HCIV, HCIII and HCII. The same health facilities studied in the previous resource tracking exercise were visited in this study. Both public and private-not-for-profit facilities were considered in the sample. Thirty-one sites in total were studied (24 health facilities and 7 DHOs).

3.2.2 Tools for data collection

Two data collection tools that were used for the previous resource tracking exercise were used in the present study. A standardized tool was administered at the health facilities and another tool was administered at the DHO. Quantitative data was collected at sub-national level to understand how much funds were availed to health facilities and district health offices to support immunization activities. Special attention was paid to how immunization funds were being utilized and in what proportions. Qualitative data was also collected to understand the flow of funds while documenting challenges in the flow of funds from national level to the end user.

3.1.3 Data Entry and Analysis

Data were first captured (through hand-written notes) in the hard copies of the questionnaires. Information obtained from the interviews were transcribed from the notes taken and entered in separate MS Excel® documents for each health facility. The quantitative data was analyzed in MS Excel® and presented as total expenditure on immunization by program area as well as by immunization line items. In addition, a qualitative analysis framework was developed where emerging thematic areas were identified and used to present findings from the sampled districts.

3.3 Quality assurance

At the level of data collection, entering, and cleaning, the study relied on in-house peer review and supervision of activities by the project team leader. At data analysis level, the team leader ensured quality through review of data. This involved actual review of summaries of the data with the view to assess the robustness and accuracy of the data.

3.4 Ethics Considerations

Largely, this study poses no more than minimal risks to participants; nonetheless, ethical approval was obtained for the bigger study (Full Country Evaluation) from the Uganda National Council of Science and Technology (UNCST). In addition, permission was sought from the MOH, UNEPI, District

Health Officers and health facility's managers for each of the sampled districts.

4. Findings

This section presents findings for the financial mapping in section 4.1, as well as the expenditure analysis and assessment of flow of funds at the sub-national level in section 4.2.

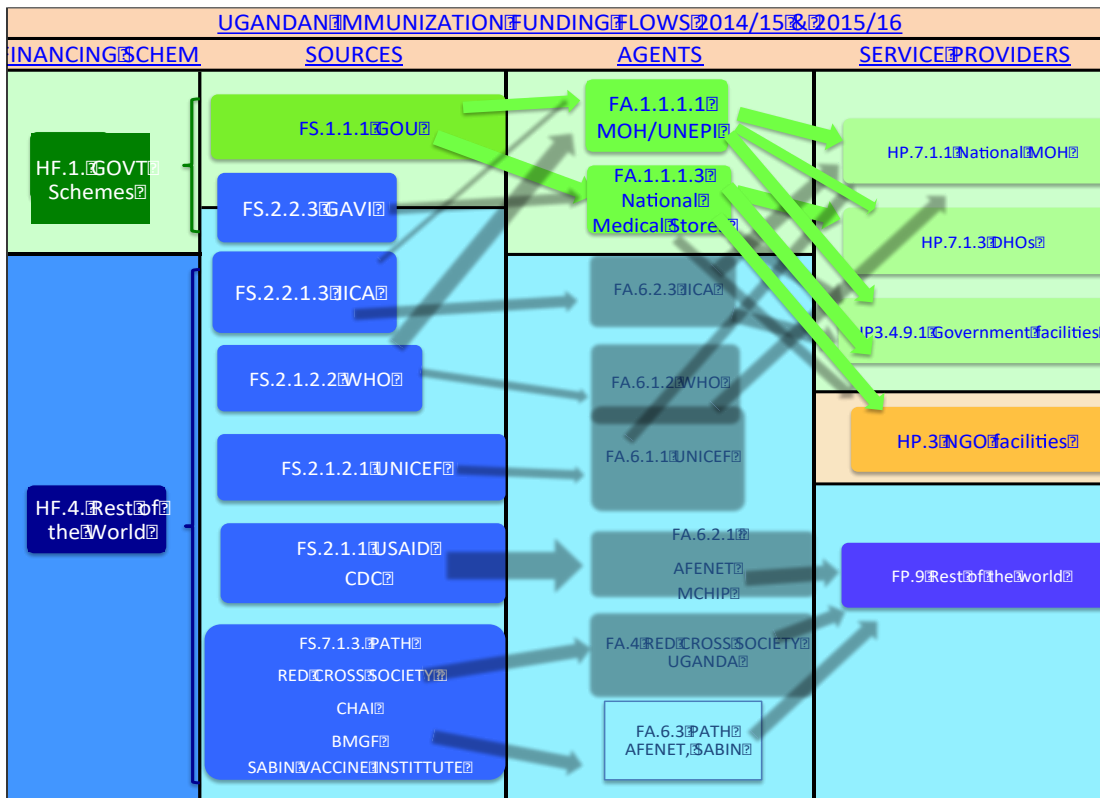
4.1 Resource envelope for immunization activities in Uganda

This section presents findings for mapping of the resource envelope for immunization activities in Uganda for FYs 2014/15 & 2015/16. In section 4.1.1 we present a brief overview of Uganda's financing for immunization. Findings on the resource envelope for 2014/15 and 2015/16 are presented in section 4.1.2.

4.1.1 Overview of financing for immunization in Uganda

Figure 4 shows that there are two financing schemes through which immunization funds for are channeled: "*the government*" and "*rest of the world*" schemes. The *Government scheme* represents public funds that are comprised of **Government of Uganda** funds and the **on-budget donor funds** (from GAVI) targeted to support immunization activities in Uganda. Financing agents for these public funds are MOH / UNEPI and NMS. Providers of services funded by public funds are: MOH / UNEPI, DHOs, government health facilities, and PNFP health facilities. With regards to the *rest of the world* scheme, **development partners** are the source of funds (including UN agencies, bilateral agencies, and international NGOs). Development partners manage the bulk of their funds, with a few exceptions (e.g. WHO and GAVI) whose bulk of the funds are managed by UNEPI and NMS (in the case of vaccine and supplies procurement and handling). Service providers for donor funds are: UNEPI, DHOs, government health facilities, and NGO health facilities. In some cases, the development partners also serve as service providers.

Figure 4: Map of financing and commodity flows for immunization in Uganda



4.1.2 Financing sources for immunization services in 2014/15 & 2015/16

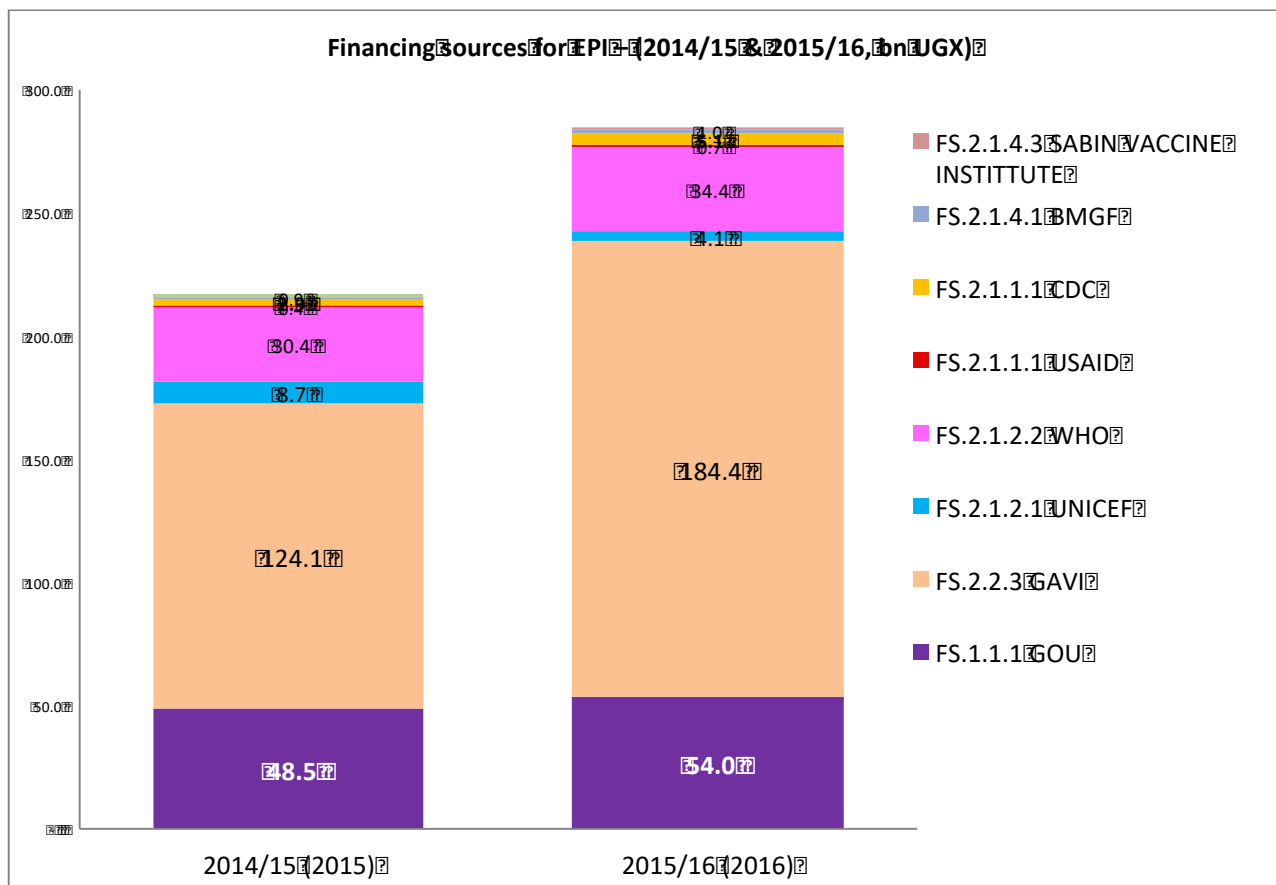
To estimate the total envelope of immunization funds, the resource envelope included (a) the total funds directly to support immunization, plus, Government of Uganda’s expenditure on salaried labor and proportion of PHC funds spent on immunization at sub national level. In other words, the resource envelope comprises:

$$\text{Total resource envelope} = \text{Donor funds} + \text{GoU (contribution at national level)} + \text{GoU (PHC proportion for immunization and \% salaried labor attributed to immunization)}.$$

Sources of funding: FY 2014/15 & 2015/16

Figure 5 and Table 1 show the total amount of funds available for immunization activities in Uganda. In FY 2014/15, UGX 216.2 billion was the total resource envelope for immunization activities while the total resource envelope for FY 2015/16 was UGX 284.1 billion. We note a remarkable 31% increment in the resource envelope between 2014/15 and 2015/16. This increment in funding is largely attributed to the increase in GAVI funding (increased by 49% between the two years) and also due to the introduction of new vaccines. GOU’s contribution also increased by 11% between the two years.

Figure 5: Sources of funding for immunization FYs 2014/14 & 2015/16



GAVI resources form the biggest contribution to the immunization resource envelope, providing UGX 124.1 billion in 2014/15 and UGX 184.4 billion in 2015/16. This accounts for 57.4% and 64.9% in 2014/15 and 2015/16 respectively of total funding (Table 1). GOU makes the second biggest contribution, providing UGX 48.5 billion in 2014/15 (i.e. 22.4% of total resource envelope) and UGX 54.0 billion in 2015/16 (i.e. 19.0% of the total resource envelope). The remaining 20.2% and 16.1% in 2014/15 and 2015/16 respectively came from other development partners (including WHO, UNICEF and international NGOs).

Table 1: Sources of funding for immunization FYs 2014/14 & 2015/16

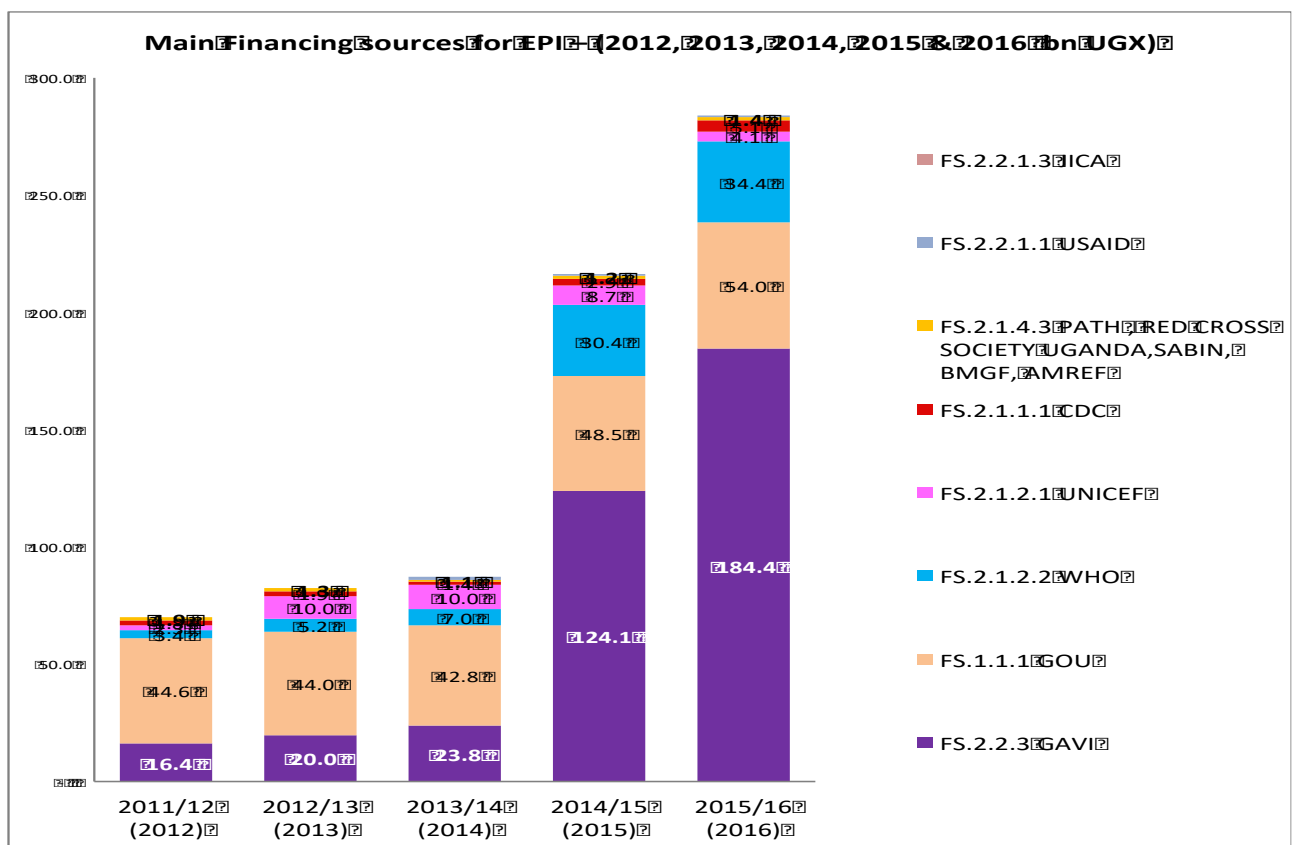
Financing sources for EPI	2014/15 (2015) -bn UGX	As a % of total funds in 2014/15	2015/16 (2016) - bn UGX	As a % of total funds in 2015/16
FS.1.1.1 GOU	48.5	22%	54.0	19%
FS.2.2.3 GAVI	124.1	57%	184.4	65%
FS.2.1.2.1 UNICEF	8.7	4%	4.1	1%
FS.2.1.2.2 WHO	30.4	14%	34.4	12%
FS.2.1.1.1 USAID	0.4	0%	0.7	0%
FS.2.1.1.1 CDC	2.9	1%	5.1	2%
FS.2.1.4.1 BMGF	0.9	0%	1.0	0%
FS.2.1.4.3 SABIN VACCINE INSTITUTE	0.1	0%	0.3	0%

FS.2.1.2 AMREF	0.2	0%	0.1	0%
Grand Total	216.2	100%	284.1	100%

Trend of immunization financing in Uganda (2011/12 – 2015/16)

Drawing from the last two resource-tracking exercises done under the GAVI FCE, the current study was able to make simple trends analysis over the five-year period. The last two resource tracking exercises provided financial data for three years (2011/12 to 2013/14) and the present study provided data for 2 financial years. Over the five-year period, trends show that immunization funding has been increasing. In absolute terms, the resource envelope has increased two-fold from UGX 70.5 billion in 2011/12 to UGX 284.1 billion in 2015/16.

Figure 6: Trend of funding for immunization from 2011/12 to 2015/16



Over the 5 years, on average, the proportional increase in the resource envelope has been around 41% with the biggest increment in funding observed in FY 2014/15 and 2015/16. GAVI resources increased remarkably in the two financial years where the spike in funding is observed and this is attributed to the lifting of the ban on GAVI funding as well as new vaccine introduction. GOU was the greatest contributor towards immunization activities in the first three years (2011/12 to 2013/14) but GAVI took over as the biggest contributor in the last two years of the five-year period. With the exception of UNICEF, we note that all EPI stakeholders including GOU and development partners have progressively contributed to immunization activities as indicated in Figure 6 and Table 2.

Table 2: Trend of funding for immunization from 2011/12 to 2015/16

Main Financing sources for EPI – in bn UGX	2011/12 (2012)	2012/13 (2013)	2013/14 (2014)	2014/15 (2015)	2015/16 (2016)
FS.2.2.3 GAVI	16.4	20.0	23.8	124.1	184.4
FS.1.1.1 GOU	44.6	44.0	42.8	48.5	54.0
FS.2.1.2.2 WHO	3.4	5.2	7.0	30.4	34.4
FS.2.1.2.1 UNICEF	2.3	10.0	10.0	8.7	4.1
FS.2.1.1.1 CDC	1.8	1.9	1.4	2.9	5.1
FS.2.1.4.3 PATH , RED CROSS SOCIETY UGANDA,SABIN, BMGF, AMREF	1.9	1.3	1.1	1.2	1.4
FS.2.2.1.1 USAID	-	-	1.5	0.4	0.7
Grand Total	70.5	82.7	87.7	216.2	284.1

Financing Agents for immunization in 2014/15 & 2015/16

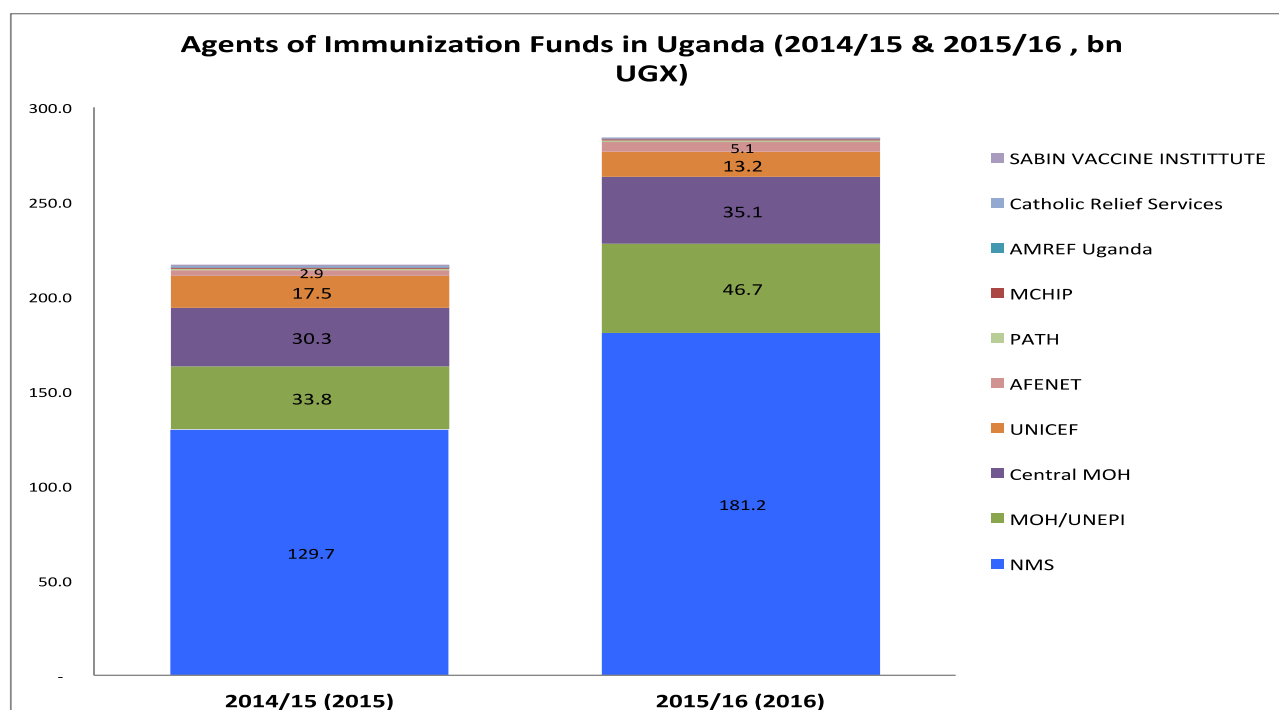
In this section, we present findings on who manages funds for immunization. Figure 7 and Table 3 show that NMS managed the biggest proportion of immunization resources, having managed 60% of the total funds in 2014/15 and 64% in 2015/16.

Table 3: Financing agents of immunization funds in Uganda in 2014/15 & 2015/16

Agents of Immunization Funds	2014/15 (2015) -bn UGX	As a % of total funds in 2014/15	2015/16 (2016) - bn UGX	As a % of total funds in 2015/16
NMS	129.7	60%	181.2	64%
MOH/UNEPI	33.8	16%	46.7	16%
Central MOH	30.3	14%	35.1	12%
UNICEF	17.5	8%	13.2	5%
AFENET	2.9	1%	5.1	2%
PATH	0.7	0%	0.9	0%
MCHIP	0.6	0%	0.9	0%
AMREF Uganda	0.2	0%	0.1	0%
Catholic Relief Services	0.2	0%	0.2	0%
SABIN VACCINE INSTITUTE	0.1	0%	0.3	0%
CHAI	0.1	0%	0.3	0%
Grand Total	216.2	100%	284.1	100%

UNEPI was the second biggest manager of the immunization funds in the two years under assessment as they managed 16% of the total resource envelope in the two FYs. Central MOH also managed a substantial amount of funds; they managed 14% and 12% of the total resources in FY 2014/15 and 2015/16 respectively. UNICEF managed 8% of the total funds in 2014/15 and their share dropped in the subsequent year to 5% of the total resource envelope. The remaining 1% in 2014/15 and 2% in 2015/16 was managed by international NGOs.

Figure 7: Financing agents for immunization funds, 2014/15 & 2015/16



A five-year trend of EPI financing agents reiterates the same finding as that presented in Figure 7. Table 4 presents a five-year trend and it is noted that NMS which has been progressively managing more funds. This is mainly because of the role they play in procurement, storage and distribution of vaccines and other supplies. MOH/UNEPI has also had a remarkable increase in the amount of funds they managed especially in the last 2 years of the 5-year period. This increase is largely explained by the increase in the GAVI funds for ISS and HSS.

Table 4: Financing Agents for immunization funds in Uganda 2012-2016

Agents of Immunization Funds in Uganda (bn UGX)	2011/12 (2012)	2012/13 (2013)	2013/14 (2014)	2014/15 (2015)	2015/16 (2016)
Central MOH	31.4	31.4	29.9	30.3	35.1
NMS	25.4	25.6	30.8	129.7	181.2
UNICEF	5.6	13.4	13.2	17.5	13.2
MOH/UNEPI	4.4	8.9	9.3	33.8	46.7
MCHIP	0	0.4	1.5	0.6	0.9
AFENET	1.8	1.8	1.4	2.9	5.1
CHAI	0	0	0.8	0.1	0.3
PATH	0	1	0.5	0.7	0.9
Catholic Relief Services	0	0	0.2	0.2	0.2
Red cross	1.9	0.2			
SABIN VACCINE INSTITTUTE	0.1	0.1	0.1	0.1	0.3
AMREF				0.2	0.1
Grand Total	70.5	82.7	87.7	216.2	284.1

Providers of immunization services in 2014/15 and 2015/16

Results for immunization service providers are presented in Figure 8 Table 5. Findings show that, as expected, government facilities provide the majority of immunization activities that comprise 74%

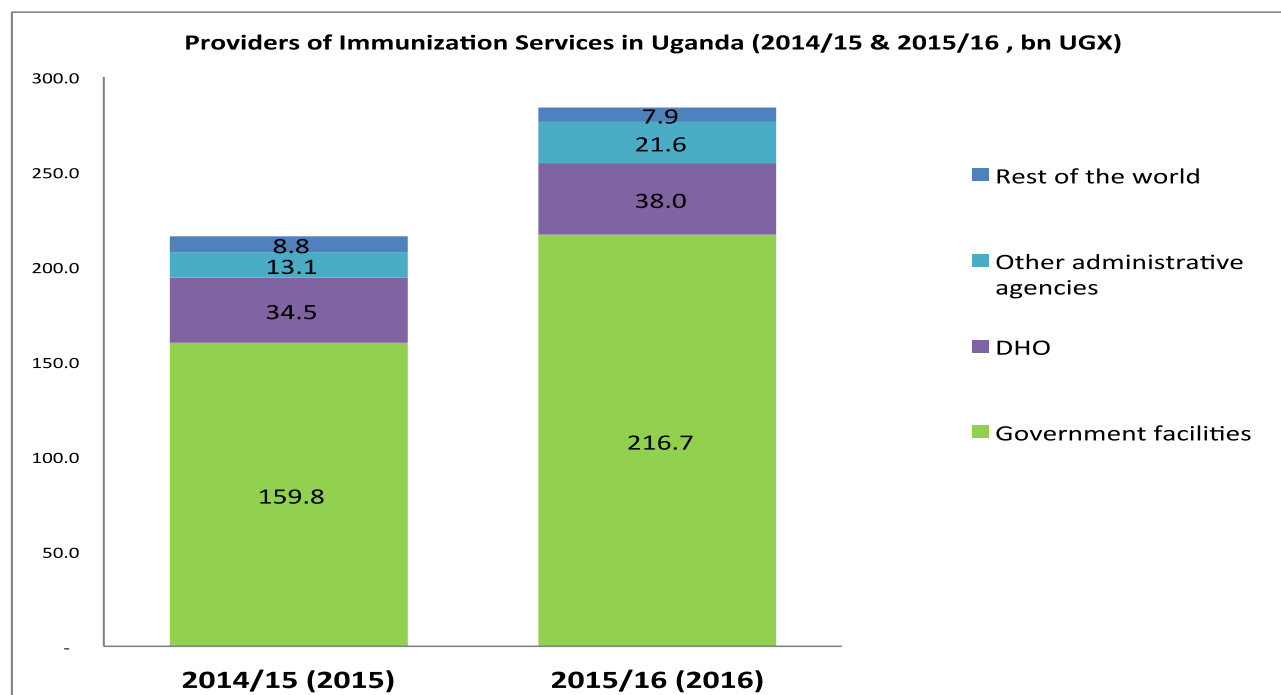
and 76% of total resource envelop in 2014/15 and 2015/16 respectively. Government facilities refer to health facilities of different levels of care including hospitals. District health offices also used a substantive amount of funds accounting for 16% and 13% of total resource envelope in 2014/15 and 2015/16 respectively. Other administrative agencies (mainly NMS and UNEPI) provided services that took up 6% and 8% of total immunization funding in 2014/15 and 2015/16 respectively. UNICEF and other NGOs (MCHIP, AFENET and AMREF) provided services that took up 4% of the total resource envelope in 2014/15 and 3% in 2015/16.

Table 5: Providers of immunization services in 2014/15 & 2015/16

Providers of Immunization Services	2014/15 (2015) -bn UGX	As a % of total funds in 2014/15	2015/16 (2016) - bn UGX	As a % of total funds in 2015/16
Government facilities	159.8	74%	216.7	76%
DHO	34.5	16%	38.0	13%
Other administrative agencies	13.1	6%	21.6	8%
Rest of the world	8.8	4%	7.9	3%
Grand total	216.2	100%	284.1	100%

Interestingly, we observed that government health facilities (providing services worth 75% of the total resources) and District Health Offices (providing services worth 15% of the total resources) provide the largest proportions of immunization activities yet they do not manage an equally large proportion of the funds as seen under the financing agent section above.

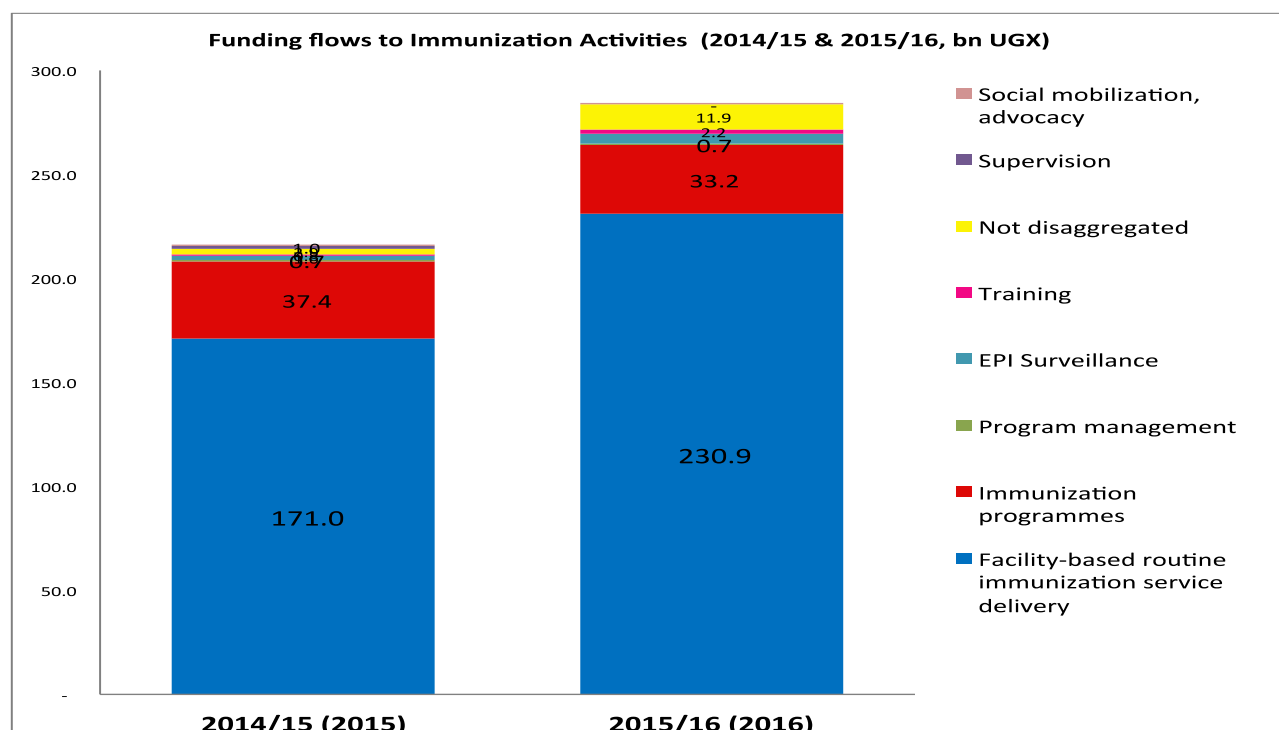
Figure 8: Providers of immunization services in 2014/15 & 2015/16



Health Care Functions / Immunization activities in 2014/15 and 2015/16

Figure 9 and Table 6, show that the biggest proportion of the resources is spent on facility-based routine immunization activities, which take up about 80% of the total resources available for immunization in both years. For this analysis, spending on facility-based routine immunization also includes expenditure on human resources and also on immunization outreaches. It was difficult to tease out expenditure specific for outreach-based services.

Figure 9: Funding flows to immunization activities in 2014/15 & 2015/16



Immunization activities and other logistics (namely: new vaccine introduction, SIAs, and support for immunization activities at national level) took up 17% and 12% of the resource envelope in 2014/15 and 2015/16 respectively. The remaining 3% in 2014/15 and 7% in 2015/16 of total funding was spent on EPI surveillance, program management, social mobilization / advocacy and training.

Table 6: Funding flows to immunization activities in 2014/15 & 2015/16

Funding disaggregated by Immunization Activities	2014/15 (2015) -bn UGX	As a % of total funds in 2014/15	2015/16 (2016) - bn UGX	As a % of total funds in 2015/16
Facility-based routine immunization service delivery	171.0	79%	230.9	81%
Immunization programmes	37.4	17%	33.2	12%
Program management	0.7	0%	0.7	0%
EPI Surveillance	1.6	1%	4.6	2%
Training	0.8	0%	2.2	1%
Not disaggregated	2.9	1%	11.9	4%

Supervision	1.0	0%	-	0%
Social mobilization, advocacy	0.8	0%	0.5	0%
Grand Total	216.2	100%	284.1	100%

A five-year trend for EPI expenditure disaggregated by immunization activities is presented in Table 7. A similar trend is observed over the five-year period as facility based routine immunization activities take up the bulk of EPI resources. It is important to note that the bulk of the facility-based activities are accounted for by the cost of human resources. In other words, excluding human resources, very little funds are spent at health facility level.

Table 7: Funding flows to immunization activities in 2011- 2016

Funding flows to Immunization Activities in bn UGX	2011/12 (2012)	2012/13 (2013)	2013/14 (2014)	2014/15 (2015)	2015/16 (2016)
Facility-based routine immunization	62.7	60.8	64.6	171.0	230.9
Immunization programmes	3.2	16.1	16.6	37.4	33.2
Program management	0.2	0.1	0.9	0.7	0.7
EPI Surveillance	1.3	0.8	2.0	1.6	4.6
Training	1.3	1.3	1.5	0.8	2.2
Not disaggregated	0	3.4	1.5	2.9	11.9
Supervision	0	0	0.5	1.0	0.0
Social mobilization, advocacy	1.6	0.3	0.1	0.8	0.5
Grand Total	70.5	82.7	87.7	216.2	284.1

4.2 Assessment of flow of funds and Expenditure analysis for immunization activities at sub national level

This section presents findings that describe and assess the flow of funds from national to sub national level as well as the results from the expenditure analysis conducted at the sub-national level. It is important to highlight that since the last resource tracking exercise, the team found that the process of the flow of funds as well as bottlenecks in the flow of funds have not changed significantly especially for the donor funds. There has been a slight change in the flow of public funds and this is described in turn.

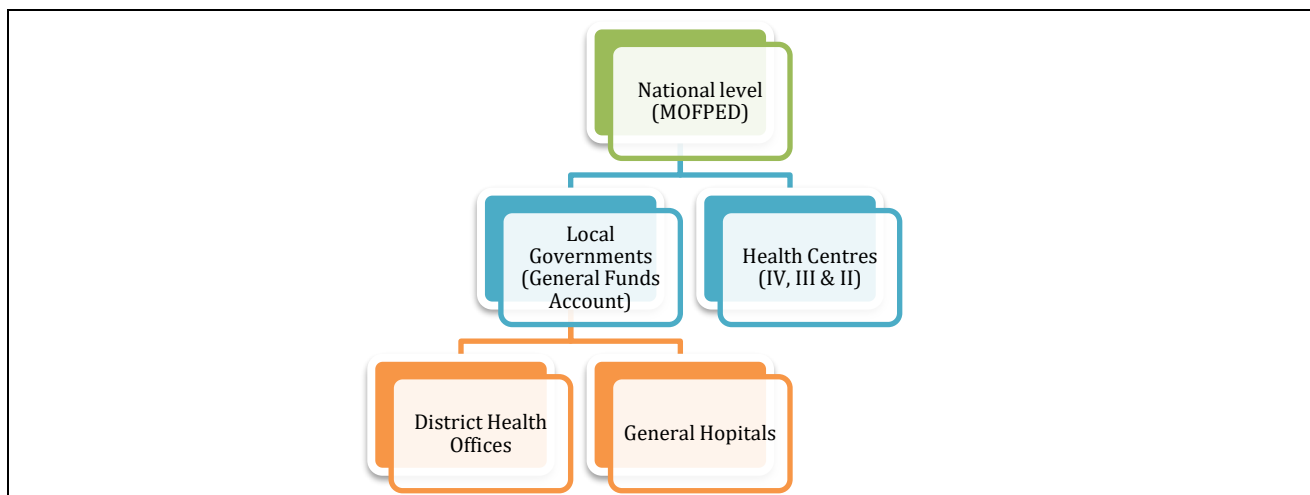
4.2.1 Description of flow of funds at sub-national level in Uganda

Immunization activities at sub-national level are funded by two key players: (a) Government of Uganda through the PCH non-wage fund and (b) Donors and international NGOs and these include: UNICEF, WHO, GAVI, USAID (through MCHIP) and CDC (through AFENET). The primary service providers of immunization services at sub national level are the public health facilities, the district health office as well as PNFP health facilities. International NGOs like MCHIP and AFENET are also involved in the implementation of immunization activities in a few selected districts. MCHIP, which is funded by USAID implements immunization activities in 5 districts (Kapchorwa, Busia, Iganga, Rukungiri and Kabale) while AFENET, which is funded by CDC, is operating in 21 districts.

4.2.1.1 Public Funds

Figure 10 shows flow of Primary Health Care funds from national level to sub-national level. PHC funds are released on a quarterly basis from MOPFED to (a) district local governments (for DHOs and for hospitals) and (b) individual health facilities. Funds sent through the district local governments for the DHOs and hospitals are allocated based on an econometric resource allocation formula. The formula takes into account most of the ingredients of needs-based resource allocation formula: population size, indicator of need (as a weighting factor for the population), a factor to take into account differential costs of service provision (e.g. remoteness, terrain etc.), and presence of other funding sources (e.g. if some districts receive direct funding from donors). The Chief Administrative Officer and the Chief Financial Officer in each district approve requisitions submitted by the DHO and the general hospitals. Once the requisitions have been approved, transfer of funds is made to these two entities (DHO and general hospital). Funds sent to the hospitals are to facilitate activities at the hospital level only unless a unique arrangement is in a position at a district for example when the general hospital doubles as a health sub district.

Figure 10: Flow of public funds (PHC non-wage) at sub national level



Funds for lower level health facilities are sent directly from MOFPED to the bank accounts of individual health facilities. However, the health facilities have to obtain approval from sub-county chiefs through the Health Sub Districts before they can access the funds.

4.2.1.1 Donor Funds

Funding from donors is channeled differently for each donor, as presented in Table 8.

Table 8: Description of flow of funds from Donors and International NGOs

Donor	Activity funded	Description of flow of funds	Remarks
UNICEF	Family Health Days Social mobilization Immunization campaigns	Funds are sent from the UNICEF office at national level to a UNICEF specific bank account opened in the district. A UNICEF accountant placed in each of the districts that UNICEF supports manages the funds. These funds can be accessed by the District Health Team who work closely with a UNICEF technical person in the district.	These funds are not further disbursed to lower level health facilities but rather, health workers from HFs are paid off these funds for activity implementation at the district health office.
GAVI	Social mobilization EPI outreaches Support supervision EPI Training New vaccine introduction	GAVI funds come through MOH and are routed to the district general collection account. The finance department at the district of availability of funds notifies the District Health office. DHO submits a requisition and funds are transferred to the health committee account. The requirements to access funds include a clear work-plan and proof of accountability for previously received funds. After receipt of funds, guidelines on how the funds should be used are sent by GAVI to the DHO.	These funds are not further disbursed to lower level health facilities but rather, health workers from HFs are paid off these funds for activity implementation at the district health office.
WHO	EPI surveillance Campaigns New vaccine introduction	WHO funds are sent from MOH to the general fund collection account. The DHO makes a requisition to the CFO and CAO. Funds are then wired to the health committee account. As a requirement to access these	These funds are not further disbursed to lower level health facilities but rather, health workers from HFs

		funds, the DHO must submit a financial report for the previous batch of funds received. Expenditure is guided by work plans and guidelines provided by WHO.	are paid off these funds for activity implementation at the district health office.
AFENET	Training Surveillance	AFNET gets funding from CDC to support immunization activities in 17 districts. AFENET however does not make direct financial transfers to districts. AFENET directly implements activities in the districts where they are operating.	Direct financial transfers are not made to the districts. AFENET staff does activity implementation.
MCHIP	Operational level Training Support RED strategy Cold chain maintenance Micro planning at DHT Support supervision	MCHIP gets funding from USAID to implement the listed activities in 5 districts. MCHIP does not make direct financial transfers to the districts.	Direct financial transfers are not made to the districts. The international NGO staff does activity implementation.

NOTE: In one of the districts visited it was also discovered that there was an NGO operating locally (within the district) to support immunization activities. In this district, AVSI (an international NGO) provided in-kind support (fuel) to facilitate EPI outreaches at lower level facilities and support supervision at the DHO and the HC IV.

4.2.2 Assessing flow of funds and financing bottlenecks at subnational level

The assessment of financial flows draws from responses obtained through key informant interviews conducted at 31 sites (24 health facilities and 7 District Health Offices) in the seven districts, as well as observations made by the research team. Section 4.2.2.1 presents an assessment for flow of funds from *national level to district level* (for both public and donor funding). In section 4.2.2.2, we discuss challenges in the flow of funds *within the districts* i.e. from DHO level to health facilities. Sub-section 4.2.2.2 describes the flow of public funds only, because donor funds are not further disbursed to health facilities.

4.2.2.1 National level to DHO and general hospitals

Public funds

As indicated in Figure 10, funds are released from national level to local governments (i.e. districts) which then transfer the funds to (a) District Health Office and (b) General hospitals. When funds are received by the district, a circular is sent by the Chief Administrative Officer to all the self-accounting entities in the district (DHO and Hospitals included) stipulating the quarterly release and how much funds each of the entities will be receiving based on their annual work plans. The DHO and hospital then prepare their quarterly requisitions, which are reviewed and approved by the CFO and CAO. Funds are then wired to the bank accounts of these entities. In turn is a description of the bottlenecks that were highlighted through an assessment of the flow of at this level.

1. Late release of PHC funds

Delays were noted in the flow of funds from national level to district level. 6 out of 7 districts reported that delays range from 1 to 2 months. We found that usually, funds arrive in a district in the second or last month of a quarter. This challenge is exuberated in quarter four where funds are usually received towards the end of the financial year. For instance, in Kween district, funds for Quarter 4 reflected on the DHO account on 02/06/2015 and were accessed on 10th/06/2015 which is approximately nineteen days to the end of the financial year. We also found that these delays were quite pronounced in the first quarter and at times they would only be accessed in the second quarter. Another example to illustrate this challenge was noted in Kween district where funds reflected on the DHOs account on 24th/09/2014 and were accessed on 14th/10/2014, when the quarter had ended. These kinds of delays highlight some of the major challenges that constrain implementation activities in a specific quarter. In addition to delays from national to district level, there are further internal delays at the district level. We found that even after funds have been transferred to the district, 71% (5 out of 7 districts) reported that it takes between 1 to 2 weeks to access the transferred funds. These delays are further worsened when one of the signatories to the health account such as DHO, CAO or CFO is not available to approve the request to withdraw funds.

2. Inadequate funding for immunization activities

Most of the districts (5 out of 7), reported to be having inadequate PHC funding to support immunisation activities. From the sampled districts, the funds received annually to support DHO immunisation activities were ranging from UGX 3,307,000 to 6,910,719 for FY 2015/16. In one of the districts, there was no PHC allocation to immunization activities due to the insufficient funds and other competing priorities in the district. The district only relied on donor support to facilitate EPI activities at the DHO. In the remaining six districts which were allocating a proportion of their funds to immunization activities, we found that there is no formal guideline which ensures that resources for immunization activities at DHO level are ring-fenced. This has serious implications for priority setting for immunization activities at the DHO. Furthermore, we found that the district health teams in all the sampled districts did not have prior knowledge of what resources to expect for EPI activities at the beginning of a year or quarter; this makes effective planning of activities difficult.

Donor funds

Donor agencies like GAVI, UNICEF and WHO provide funding to support immunization activities at sub-national level. As mentioned earlier, these funds are managed and utilized at the DHO level. Districts receive funds from donors, which come through MOH and are routed to the district general collection account. The finance department at the districts then notifies the DHO of the availability of funds. DHO then submits a requisition and funds are transferred to the health committee account. The requirements to access funds include a clear work-plan and proof of accountability for previously received funds. After receipt of funds, guidelines on how the funds should be used are sent by National level to the DHOs. Drawing on the key informant interviews at DHO level, the following observations were made:

1. Communication on the release of funds

Communication on the disbursement of donor funds is usually not sent to the districts or at times it there is a delay in notifying the district that funds have been sent from National level. As a result, implementation of activities is delayed.

2. Reporting requirements

Districts reported that there are different expenditure recording and reporting requirements for the different donors which must be fulfilled before the release of the new cycle of funds. Because of these differences in reporting, several respondents noted that the reporting for donor funds is quite tedious and time consuming. One respondent in one of the district noted that *"I have to take the UNICEF FACE form to Moroto district for approval from the UNICEF regional accountant. This process takes a lot time"*.

3. Unpredictability of funds

Respondents in the sampled districts noted that they were not aware of future donor commitments. They only had information about funds currently available to in a given financial quarter. This finding emphasizes the fact that donor funds are unpredictable and implicitly unsustainable in nature. Furthermore, we noted that all the sampled districts do not plan or budget for donor funds as part of their annual planning cycle. Funds are only planned for once they have been received in the district. Donors also provide guidance on how the disbursed funds should be spent and on which specific activities.

Apart from financial related challenges, districts also highlighted some of the challenges that hold back the implementation of immunisation activities and these include:

- Inadequate transport facilities
- Lack of functional district vaccine store for example in Kween district
- Inadequate staffs at the health facilities and at the district health offices
- Lack of qualified cold-chain technicians
- Inaccurate reporting from lower level facilities
- Some districts have many hard to reach areas with cliffs and mountains like in Kween district
- Lack of enough cold-chain equipments such as fridges for example in Kween district six facilities were reported having no fridges
- Stock outs and wastage of vaccines
- Some district are under staffed at the district level
- Poor internet connectivity which hinders communication especially when it is through email

4.2.2.2 National level to lower level health units through the Health sub district

Lower level units receive PHC funds on a quarterly basis to support immunization activities. With the new financial reform, funds for health units are sent directly to the bank accounts of individual health units. Health facilities need to get approvals and signatories from the health sub district to access

their funds. This reform is relatively more efficient than the previous system where lower level units had to get approvals from both the district and the health sub district. Cutting out the DHO level, in the flow of funds to health facilities, reduces on the transaction time as some of the respondents noted that delays have been reduced on average by 2-3 weeks. This approach however reduces the managerial “power” of the DHO. One of the respondents noted that *“The DHO no longer has power over the lower level facilities since they do not owe him [the DHO] any accountability and even when the DHT goes for supervision, they not aware of how much funds the facility received and therefore what targets they should have met”*. Using the information obtained through key informant interviews, we assessed the bottlenecks associated with immunization financing and flow of funds to health facilities. The findings of the assessment are presented below.

Table 9: Summary of the key issues / challenges reported at health facilities

Challenge	Number of facilities reporting challenge (out of 24)	Total number of facilities (n)	%
Insufficient funds	21	24	88
Delay of funds	22	24	92
Vaccine stock outs	6	24	25
Inadequate transport facilities	13	24	54

1. Insufficient funds

Responses from 7 districts indicate that 21 out of the 24 health facilities reported inadequate levels of funding to support routine immunization activities at their respective health units. This challenge is further exuberated by high bank charges on PHC funds. A respondent at one of the health facilities noted that *“The bank charges on the PHC funds are large and reduce further the already insufficient funds. They charged the facility amount 146,000 this quarter and we thought it was an error but the bank confirmed that; that was the cost,”* in-charge HC II. Another respondent noted that, *“A HC II gets about UGX 400,000 per quarter. About 240,000 of these funds go to compound workers. UGX 160,000 is left to cover all other activities... When there is no money what do you do?... Health workers do not go out to do outreaches as a result.”* DHO in one of the sampled districts.

2. Delays in the disbursement of funds

We also found that 92%of the health facilities studied reported delays in the receipt of PHC funds as a bottleneck. On average PHC funds were received between the second to third month of the quarter and at times funds were received when the quarter had ended. The delay in receiving funds is due to late release of funds from national level as well the long bureaucratic requisitioning process required to access PHC funds. A respondent at one of the health centers said *“After being informed of the arrival of funds, it takes about 2 weeks before funds are available for use. Sometimes the funds are in the bank but the health facility is not aware. In some other cases, the signatories are not readily available to approve the funds. Other times, the signatories are changed and the bank requires formal*

introduction of the new signatories. A respondent mentioned that *"Sub county chiefs are transferred very often which means the account signatories have to keep changing. This process is very long and sometimes results into delays in accessing funds"*. This process is worsened if one of the key signatories is not readily available, for instance, one respondent noted that *'CAO was in a workshop and couldn't write an introduction for the new signatory. The Muynidi at Crane Bank couldn't give us the funds...'* Other bottlenecks in the provision of immunization services, that are not necessarily related to the flow of funds include the following:

3. Inadequate transport

Slightly over half of the sampled facilities (54%) reported a lack of sufficient transport as one of the key challenges that constrains EPI service delivery. In one of the hard to reach districts sampled, we found that health workers had been given bicycles to support EPI activities but they were not happy with bicycles and instead wanted motorcycles given the nature of the terrain in the district. One respondent at the HC IV noted that *"Health facilities received bicycles from UNICEF but they still don't go out to conduct outreaches because it's very tiring to ride a bicycle to most of the outreach posts. The health workers prefer to use motorcycles and not bicycles."*

4. Vaccine stock outs

A quarter of the respondents reported to have experienced vaccine stock outs. This challenge has remarkably reduced given that in the previous resource tracking exercise 75% of the respondents reported to have severe shortages in vaccine supply. The new vaccines (HPV, PCV and IPV) seemed to be most affected by the challenge of stock outs. One respondent lamented that, *"IPV has been stocked out for over 3 months. Mothers were really excited about IPV since its launch and they had really liked and understood its benefits. But now they come to the facility and request for it but we just tell them that we do not have it."* Respondent at HC II

4.2.3 Expenditure analysis for immunization activities at sub national level

Data on actual expenditures was collected from the 24 health facilities as well as the 7 DHOs for the FYs 2014/15 and 2015/16. Expenditure analysis estimates present the average expenditures for immunization activities at the sub-national level both by program area and by line item classification. This section presents findings of the expenditure analysis for immunization activities at the: DHO level (section 4.2.3.1) and Health facility expenditure analysis in section 4.2.3.2.

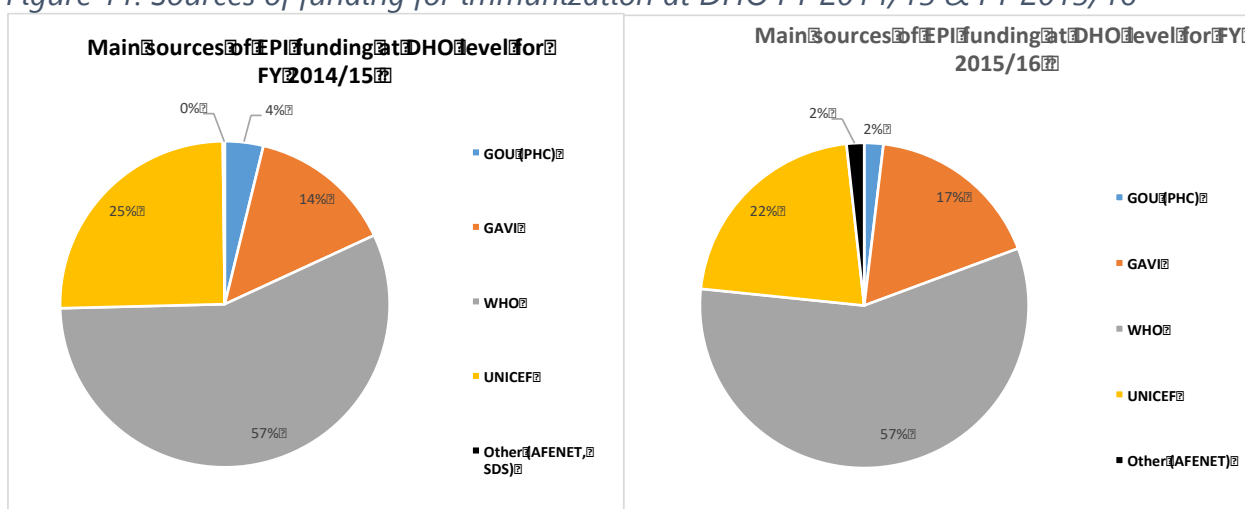
4.2.3.1 Expenditure Analysis at the District Health Office

As mentioned earlier, the DHO receives immunization funding from two sources: *public funds* (PHC grant) and *donor funds* (from GAVI, UNICEF and WHO). Details of the expenditure analysis for these two streams of resources are described below.

Main sources of funding for EPI activities at the DHO

Figure 11 shows the sources of funds for immunization activities at DHO level. Considering total immunization funding for all the 7 districts, Figure 11 shows that, WHO provided the biggest proportion (57%) of funds for the 7 districts in the two years, followed by UNICEF that provided about a quarter of the total EPI resources in the sampled districts in for both years. GAVI averagely provided 15% of the funds at the DHO level in the sample districts in both 2014/15 and 2015/16. The PHC funds accounted for about 3% of the total resource envelope in the 7 districts in both years under assessment. However, it is important to note that GOU's contribution is underestimated, as this estimate does not include the cost of salaried labour, purchase, storage, and distribution of vaccines. It is also important to note the variation in the total amounts received by the 7 sampled districts. Iganga, Kween and Lamwo district make up a very substantial amount of the total resources to support immunization activities in 7 districts (see Annex 4). This variation in resource allocation might highlight inequality concerns that need further investigation.

Figure 11: Sources of funding for immunization at DHO FY 2014/15 & FY 2015/16



Public funds (GOU-PHC grant)

Table 10 shows the proportion of the PHC grant received by DHO that is allocated to immunization activities.

Table 10: Proportion of PHC allocated to immunization, FY 2014/15 & FY 2015/16

District	Total DHO budget (PHC)		GOU (PHC) for EPI		Proportion allocated to EPI	
	FY 2014/15	FY 2015/16	FY 2014/15	FY 2015/16	FY 2014/15	FY 2015/16
Abim	27,000,000	27,000,000	3,307,000	3,307,000	12%	12%
Iganga	48,395,425	51,504,711	4,100,000	4,100,000	8%	8%
Kween	14,956,000	13,414,000	6,711,472	4,223,900	45%	31%
Lamwo	21,144,262	24,514,524	-	-	0%	0%
Masindi	45,450,000	45,850,000	6,600,000	5,800,000	15%	13%
Mitooma	13,063,770	14,244,060	4,463,100	5,097,600	34%	36%
Nakaseke	32,259,057	34,553,598	6,451,811	6,910,719	20%	20%
Total	202,268,514	211,080,893	31,633,383	29,439,219	16%	14%

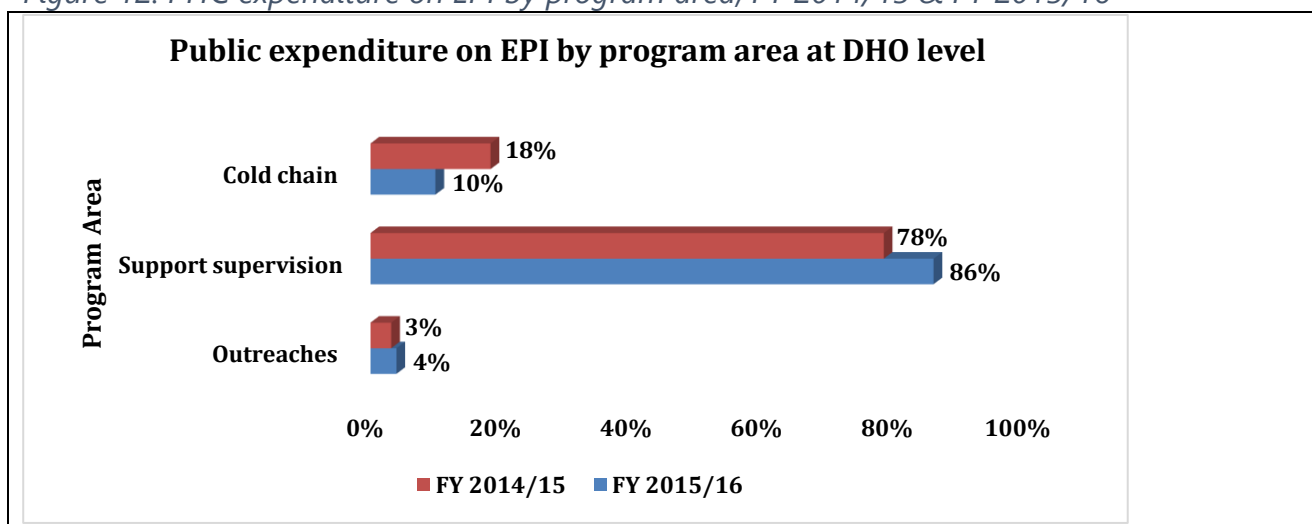
Table 10 shows that on average, a DHO spends about 15% of its total annual resources on EPI activities. However, in terms of the absolute amounts, the 15% represents about UGX 5 million annually per district. Furthermore, more than half of the sampled districts (4 out of 7 districts) allocated less than 15% of their total DHO funds to support immunization activities, with the proportion allocated ranging from 0% to 45% in the two years of the study.

Out of the total 7 districts, 1 district (Lamwo) reported 0% allocation of the PHC grant to support immunization activities at the DHO level. This is because the district primarily relied on donor support to implement EPI activities. Iganga and Abim district reported to have allocated less than 15% of their total PHC fund on immunization activities in both years. Kween district reported the highest proportion (45%) allocated to immunization from the total PHC grant in FY 2014/15. However, the allocation reduced by 14% in FY 2015/16. Masindi's allocation of the PHC grant to immunization activities similarly dropped by 2%, while that of Mitooma increased by 2% over the two-year period. Nakaseke's PHC allocation to EPI remained constant at 20% in both years.

Public funds expenditure by program area at DHO level

Figure 12 provides a summary of PHC expenditure at DHO level broken down by program area. The bulk of the PHC funds are spent on EPI support supervision, which accounted for 78% in FY 2014/15 and increased to 86% in FY 2015/16. Expenditure on cold chain activities showed a reduction of 8% in FY 2015/16 while expenditures on outreaches increased by 1% from 3% in FY 2014/15 to 4% in FY 2015/16.

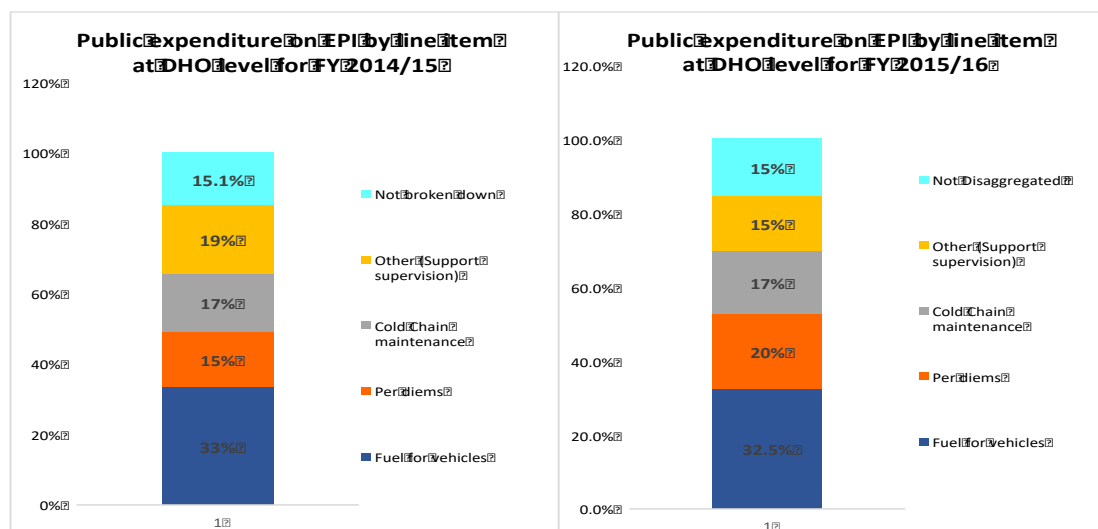
Figure 12: PHC expenditure on EPI by program area, FY 2014/15 & FY 2015/16



Public funds expenditure by line item at DHO level

When expenditure at DHO level is presented by line item as shown in Figure 13, it is noted that the bulk of the PHC funds were spent on fuel for vehicles for support supervision and vaccine distribution that accounted for approximately 33% of the total PHC funds in the 7 districts. Per diems for outreaches took up 20% and 15% of the total PHC funds in FY 2014/15 and FY 2015/16 respectively. Activities relating to support supervision and cold chain ranged between 15% and 19% in both study years.

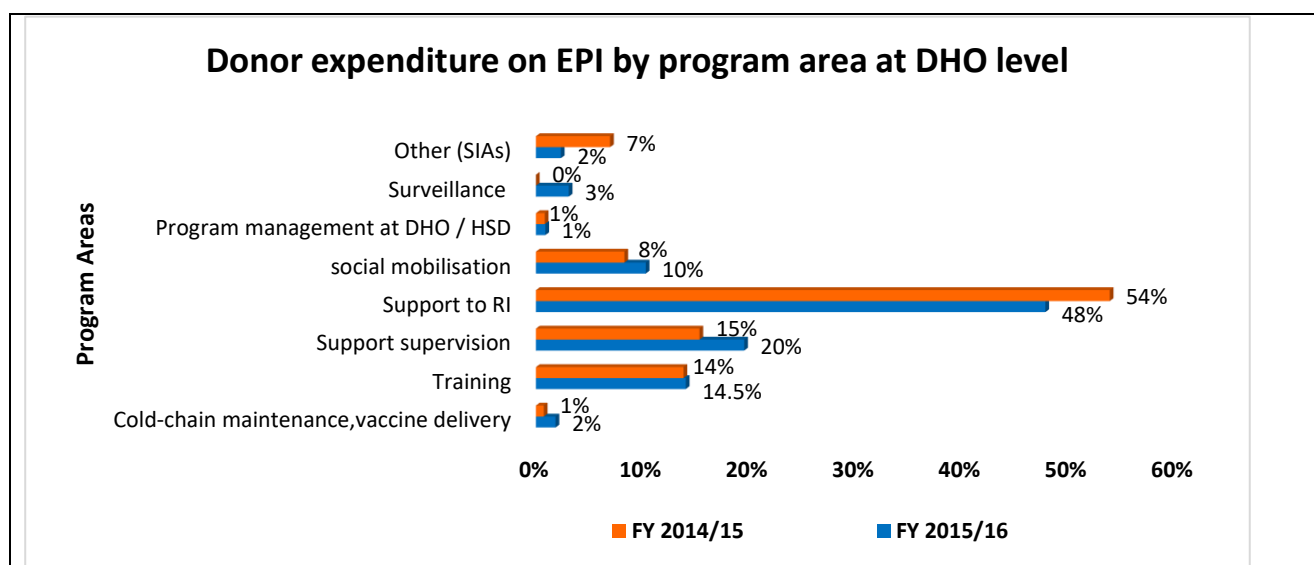
Figure 13: PHC expenditure on immunization by line item, FY 2014/15 & FY 2015/16



Donor funds expenditure by program area at DHO level

Figure 14 shows a summary of expenditure of donor funds broken down by program area at the DHO level. In the two study years, the bulk of donor funds were used to support routine immunization, which include: vaccine collection and per diems to support outreaches 54% (2014/15) and 48% (2015/16). An increment in allocation of donor funds to other program areas was reported with support supervision increasing by 5% (15% to 20%), training by 0.5% (14% to 14.5%), social mobilization by 2% (8% to 10%), surveillance by 3% (0% to 3%), and cold chain maintenance increased by 1% (1% to 2%) in FY 2015/16. Support to SIAs using donor funds declined by 5% from 7% in 2014/15 to 2% in 2015/16 while resource allocation to trainings remained constant at 14.5% in the sampled districts.

Figure 14: Donor expenditure on immunization by program area, 2014/15 & 2015/16



4.2.3.2 Expenditure Analysis at health facility level

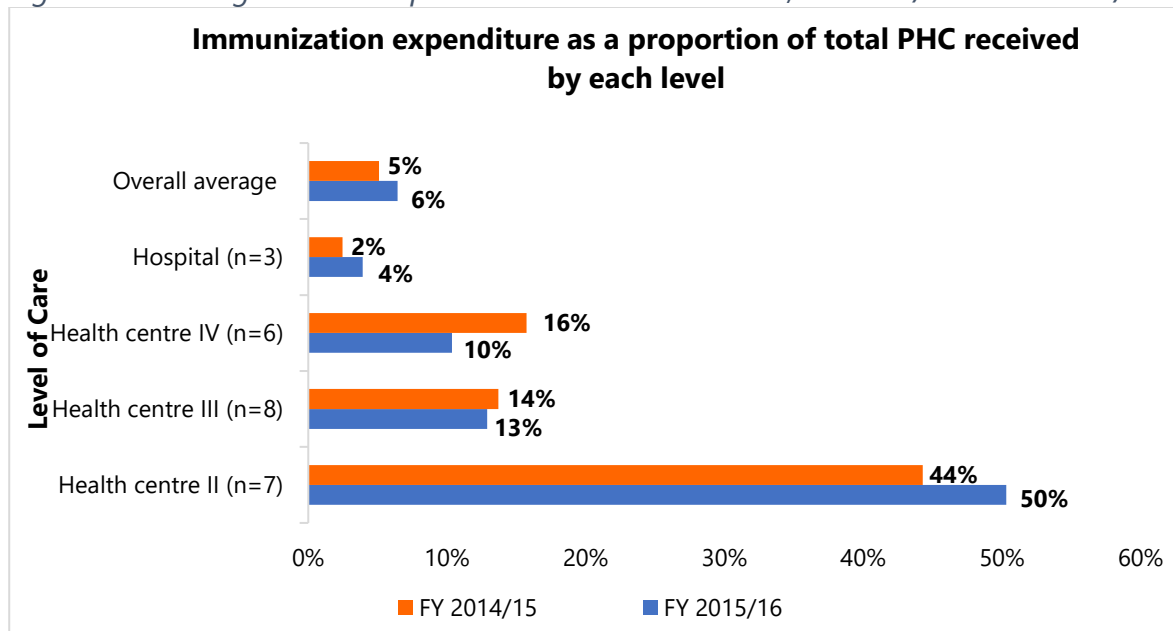
Health facilities spend a proportion of their PHC funds on immunization activities. Table 11 and Figure 15 show the annual average amount spent on immunization activities as a proportion of the average annual PHC funds received by the different levels of care. Figure 15 shows that Health Centre IIs spend the largest proportion of their PHC funds on immunization standing at 44% in 2014/15 and increased to 50% in 2015/16. In absolute terms, the 44% represents 966,286 UGX while 50% represents 1,292,629 UGX (Table 11). This is followed by HC IVs, in 2014/15 that reported to have spent about 16% of their total PHC funds on immunization activities. Expenditures on immunization activities at HCIVs notably reduced to 10% in FY 2015/16. HC IIIs on average spent 14% and 13% of their total PHC funds on immunization activities in FYs 2014/15 and 2015/16 respectively.

Table 11: Average annual expenditure on immunization, FY 2014/15 & FY 2015/16

Facility type	Avg. annual PHC UGX (FY 2014/15)	Avg. annual immunization expenditure UGX (FY 2014/15)	Avg. annual PHC UGX (FY 2015/16)	Avg. annual immunization expenditure UGX (FY 2015/16)
Health Centre II (N=7)	2,181,651.43	966,285.71	2,569,094.71	1,292,629.43
Health Centre III (N=8)	15,722,541.75	2,153,577.13	16,361,435.63	2,112,127.13
Health Centre IV (N=6)	14,220,596.67	2,236,366.50	33,917,955.50	3,516,033.33
Hospital (N=3)	142,124,610.00	3,509,333.33	140,080,849.33	5,484,519.67
Overall average	174,249,399.85	8,865,562.67	192,929,335.17	12,405,309.55

As expected, hospitals reported the least expenditure of their annual PHC fund on immunization activities of 2% in FY 2014/15, which slightly increased to 4% in FY 2015/16. Overall, the annual average expenditure for immunization across all levels of care in the sample was 5% in 2014/15 and 6% in 2015/16, which is lower than the MOH recommendation that stipulates an allocation of at least 10% of the PHC grant to be spent on immunization activities. This highlights that health facilities are still critically underfunded bearing in mind that government health facilities provide the bulk of immunization services seen in the financial tracking section.

Figure 15: Average annual expenditure on immunization, FY 2014/15 & FY 2015/16



PHC funds expenditure on immunization by program area at health facility level

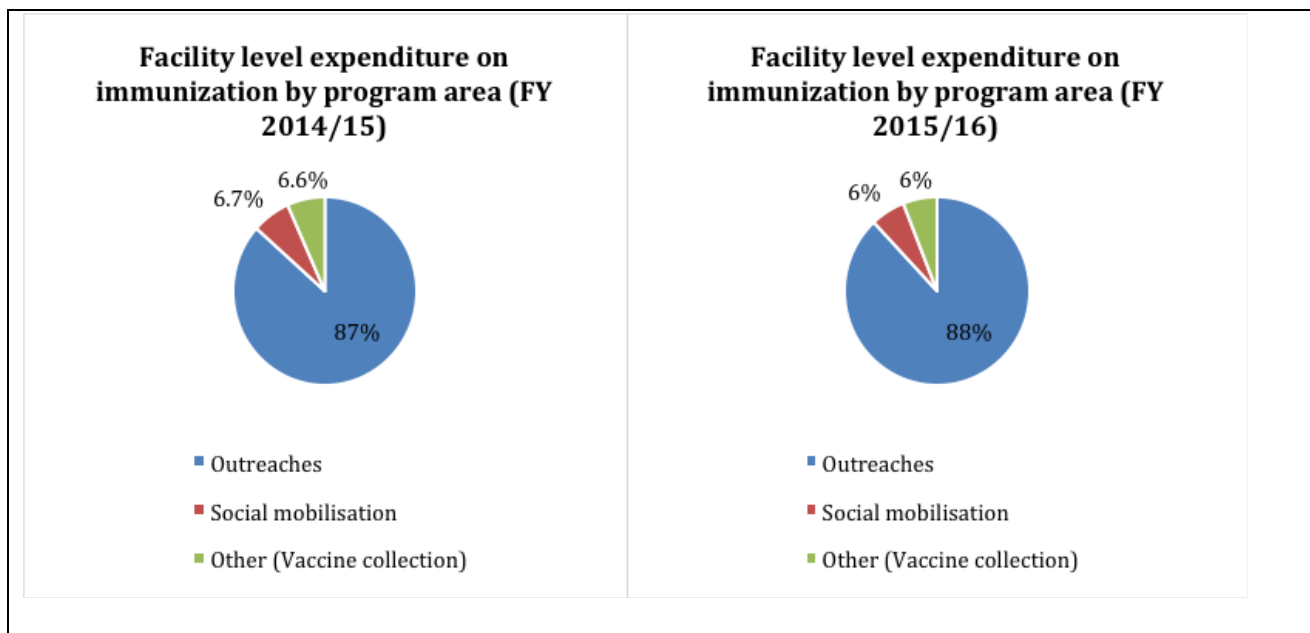
Table 12 and Figure 16 present the total PHC expenditure for each level of health facilities, broken down by program area. The amounts presented in Table 12 are not average expenditures per level of health care. Instead, it is total spending by **all** the sampled health facilities for a given immunization program area.

Table 12: Annual expenditure on immunization by program area, FY 2014/15 & FY 2015/16

Program areas	Health centre II		Health centre III		Health centre IV		Hospital	
	FY 2014/15	FY 2015/16	FY 2014/15	FY 2015/16	FY 2014/15	FY 2015/16	FY 2014/15	FY 2015/16
Outreaches	5,280,000	7,336,406	13,993,617	13,582,017	11,748,379	17,869,780	10,528,000	13,300,000
Social mobilization	1,484,000	1,392,000	1,515,000	1,595,000	229,812	582,140	-	-
Other (Vaccine collection)	-	-	1,720,000	1,720,000	1,440,000	1,800,000	-	-
Total	6,764,000	8,728,406	17,228,617	16,897,017	13,418,191	20,251,920	10,528,000	13,300,000

Taking into consideration spending by all the 24 health facilities studied, Figure 16 shows that outreaches consumed the bulk of the immunization resources, accounting for 87% (FY 2014/15) and 88% (FY 2015/16) of the total PHC funds for immunization activities in the 24 sampled health facilities. Social mobilization and collection of vaccines separately accounted for 7% (FY 2014/15) and 6% (FY2015/16) of PHC funds in the sampled facilities.

Figure 16: Facility PHC expenditure on immunization by program area, FY 2014/15 & FY 2015/16



PHC expenditure on immunization broken down by line item at health facility

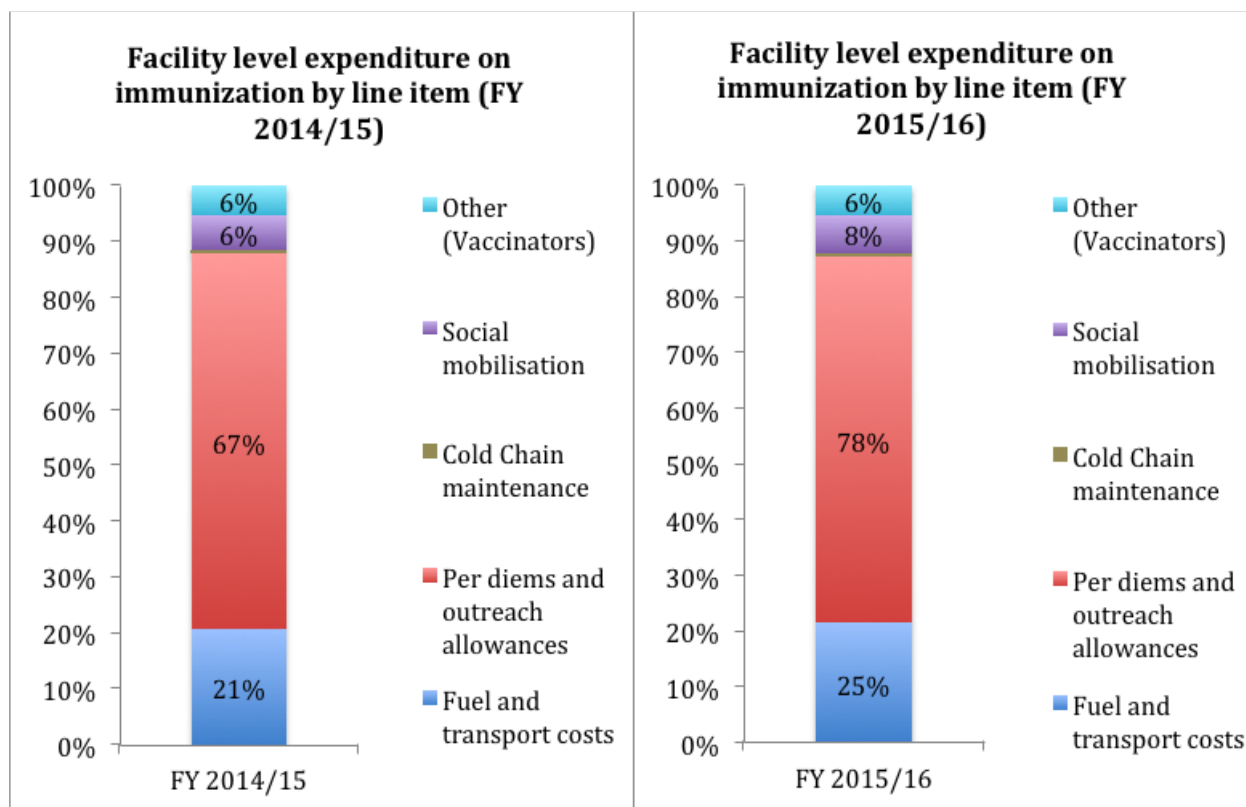
Expenditure of PHC funds on immunization at the health facility was also classified by line item and the results are shown in Table 13 and Figure 17. Per diems and outreach allowances took up the largest share of the amount spent on immunization with a proportion of 67% in 2014/15 and 78% in 2015/16. This was followed by transport and fuel expenditures that accounted for about a quarter of the total PHC resources earmarked for EPI in the sampled health facilities in the two years under assessment. The remaining 12% in 2014/15 and 14% in 2015/16 was spent on social mobilization activities, cold chain maintenance, and facilitation for vaccinators.

Table 13: Health Facility annual expenditure on EPI by line item, FY 2014/15 & FY 2015/16

Line items	Health Centre II		Health Centre III		Health Centre IV		Hospital	
	FY 2014/15	FY 2015/16	FY 2014/15	FY 2015/16	FY 2014/15	FY 2015/16	FY 2014/15	FY 2015/16
Fuel and transport costs	1,404,000	1,518,000	3,732,617	3,447,017	4,613,460	7,133,420	180,000	-
Per diems and outreach allowances	4,311,000	5,293,406	10,431,000	10,135,000	7,134,919	8,568,640	10,348,000	13,300,000
Cold Chain maintenance	-	-	360,000	360,000	-	-	-	-
Social mobilization	1,100,000	1,712,000	1,515,000	1,595,000	229,812	582,140	-	-
Other (Vaccinators)	-	-	1,200,000	1,200,000	1,440,000	1,800,000	-	-
TOTAL	6,815,000	8,523,406	17,238,617	16,737,017	13,418,191	18,084,200	10,528,000	13,300,000

Funds spent on fuel and transport costs (transportation to outreach posts and vaccine collection) and social mobilization increased by 4% and 2% respectively in FY 2015/16. Expenditures on vaccinators remained at 6% in the two years while that of cold chain maintenance stayed 1%.

Figure 17: Health facility expenditure on EPI by line items, FY 2014/15 & FY 2015/16



5. Conclusion and recommendations

5.1 Conclusions and recommendations on the resource tracking at national level

The mapping findings show for the two years under assessment, GAVI was the largest funder for immunization activities providing 58% and 67% of the total resource envelope in 2014/15 and 2015/16 respectively. GOU was the second largest contributor providing 22% and 18% of the total resource envelope in 2014/15 and 2015/16 respectively. It is important to note that the bulk of GOU's contribution is towards salaried labour and therefore, operational EPI activities over the last two years have heavily relied on donor support. The contributions of development partners therefore play a very critical role in the delivery of immunization services in Uganda. This raises sustainability concerns as well all the challenges that come with over dependency on donor funding to support a critical and essential national program such as immunization.

A five-year trends analysis shows that funding for immunization has been progressively increasing. In absolute terms, the resource envelope has increased two-fold from UGX 70.5 billion in 2011/12 to UGX 276.5 billion in 2015/16. For the first three years, 2011 to 2014, GOU was the greatest contributor towards immunization activities primarily because of its contribution to salaried labour at district

level. In the last two years however, GAVI surpassed GOU as the largest contributor to immunization activities. This is partly because the ban on GAVI funding was lifted and also the introduction of new vaccines. A slight increase (UGX 0.6 bn) was noted in GOU's contribution between 2014/15 and 2015/16 and this was a result of the increment in the government's co-financing for new vaccines. In light of new vaccines as well as the need to increase coverage rates due to population growth, such a small increase in GOU's expenditure raises programmatic and financial sustainability concerns for EPI.

Suggested recommendations

1. GOU should increase its financial commitment to the immunization program.
2. An immunization financial sustainability analysis is recommended given the high level of donor dependency of the program.
3. Further financial mappings will be very crucial in coming years. Funding needs, flows and gaps are likely to be larger with introduction of new vaccines. Programme efficiency and sustainability could be compromised without robust resource mobilization and tracking.
4. A recommendation would be to set up single system that captures all funding and contributions from partners and ensure that this is aligned to government's work plans and priorities for the immunization program.
5. A gap analysis is recommended to make a comparison between the required costs to implement immunization activities and the available resources.

5.2 Conclusions and recommendations on the flow of funds and expenditure analysis at subnational

From the 7 district case studies, the three most important bottlenecks are: (a) insufficient funds which was reported by 88% of the 24 respondents (b) delay of funds was reported by 92% of the 24 visited sites and (c) inadequate transport means which was reported by 54% of the 24 sampled sites. With regards to the expenditure analysis component, we found that WHO provided the biggest proportion (57%) of funds for the 7 districts in the two years, followed by UNICEF that provided about a quarter of the total EPI resources in the sampled districts for both years. GAVI averagely provided 15% of the funds at the DHO level in the sample districts in both 2014/15 and 2015/16. The PHC funds accounted for about 3% of the total resource envelope in the 7 districts in both years under assessment. However, it is important to note that GOU's contribution is underestimated, as this does not include the cost of salaried labour, purchase, storage and distribution of vaccines.

The **expenditure analysis at the DHO level** also highlighted that on average, the proportion of total funding spent on immunization activities was 16% in 2014/15 but decreased to 14% in 2015/16. This allocation is still within acceptable range as per the MOH recommendation that 10-20% of funds at the DHO should be spent on EPI. However, in terms of the absolute amounts, the 16% represents UGX 5 million annually per DHO, which is very insufficient when spread over a year. Furthermore, looking at each of the districts individually we note that more than half of the sampled districts (4 out of 7 districts) are allocating less than 15% of their total PHC funds to immunization activities. This finding has been consistent over the past 5 years. Additionally, this finding is irreconcilable with the

fact that immunization funding has increased two-fold over the last 5 years. This implies that perhaps the increase in funding at National level doesn't necessarily trickle down to the sub-national, where the bulk of immunization service delivery happens.

Expenditure analysis at the facility level showed gross underfunding for immunization activities. The annual average expenditure for immunization across all levels of care in the sample was 5% in 2014/15 and 6% in 2015/16; this is lower than the 8% reported in FY 2013/14. This highlights that health facilities are still critically underfunded and yet government health facilities provide the bulk of immunization services as seen in the financial tracking section. Furthermore, the 5% and 8% average allocation of PHC grant to immunization at health facility level is lower than the MOH recommendation, which stipulates that at least, 10% of the PHC grant at each health facility should be spent on EPI activities.

Recommendations

1. Putting in place a mechanism that protects resources for immunization activities at sub-national level is highly recommended.
2. An expenditure analysis involving a bigger and more representative sample at sub-national level is recommended. Such an evaluation should take into account geographic equity in resource allocation for both public and donor resources, and how this impacts on immunization coverage through routine immunization activities.
3. We recommend an increase in funds at the DHO and health facilities level through innovative approaches to mobilize and increasing resources for routine immunization.
4. At both national and sub-national level, improved accounting and transparency around actual expenditures by government and partners has the potential to improve efficiency in resource usage.

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7. Annexes

Appendix 1: Immunization schedule in Uganda

Vaccine/ Antigen	Dosage	Doses required	Min. Interval between doses	Min. Age to Start	Mode Administration	Site of Administrati on
BCG	0.05ml up to	1	None	At birth(or	ID	R-Upper Arm
DPT- HepB+Hib	0.5 ml	3	1 Mo. (4 wks)	At 6 wks	IM	Outer Upper Aspect of L-
OPV	2 drops	0+3	1 Mo. (4 wks)	At birth or within	Orally	Mouth
Rotavirus vaccine**	1.5 ml	2	1 Mo (4 wks)	At 6 and 14wks	Orally	Mouth
PCV	0.5 ml	3	One Mo(4wks)	At 6 wks	IM	Outer Upper Aspect of R-
IPV***	0.5 ml	1	None	At 14 weeks	Intra- muscularly	L-thigh 2cm
Measles	0.5 ml	1	None	At 9 Mo (or	SC	L- Upper Arm
Tetanus Toxoid	0.5 ml	5	TT1 & TT2; 4 wks TT2 & TT3; 6 Mo TT3 & TT4; 1 year TT4 &	At first contact with a pregna nt	IM	Upper Arm Deltoid
HPV	0.5ml	2	6 months	At first contact with 10	IM	Upper Arm Deltoid

Source: Comprehensive EPI Multi Year Plan (2016- 2020)

Annex 2: List of Immunization stakeholders at National level

- 1) UNICEF
- 2) WHO

- 3) PATH
- 4) GAVI
- 5) MoH (Planning and budgeting)
- 6) MoH (UNEPI)
- 7) NMS
- 8) CDC - AFENET
- 9) USAID - MCHIP
- 10) SABIN
- 11) JICA
- 12) Red Cross
- 13) CHAI
- 14) AMREF Uganda
- 15) MACIS

Annex 3: 5- year immunization funding trends by financing sources, agents, providers and immunization activities

Main Financing sources for EPI – (bn UGX)	2011/12 (2012)	2012/13 (2013)	2013/14 (2014)	2014/15 (2015)	2015/16 (2016)
FS.1.1.1 GOU	44.6	44	42.8	48.5	54.0
FS.2.2.3 GAVI	16.4	20	23.8	124.1	184.4
FS.2.1.2.1 UNICEF	2.3	10	10.0	8.7	4.1
FS.2.1.2.2 WHO	3.4	5.2	7.0	30.4	34.4
FS.2.1.1.1 USAID	0	0.4	1.5	0.4	0.7
FS.2.1.1.1 CDC	1.8	1.8	1.4	2.9	5.1
FS.2.1.4.1 BMGF	0	0	1.0	0.9	1.0
FS.2.1.4.3 SABIN VACCINE INSTITUTE, Red cross, AMREF	1.9	1.3	0.1	0.3	0.4
Grand Total	70.5	82.7	87.7	216.2	284.1

Agents of Immunization Funds in Uganda (bn UGX)	2011/12 (2012)	2012/13 (2013)	2013/14 (2014)	2014/15 (2015)	2015/16 (2016)
Central MOH	31.4	31.4	29.9	30.3	35.1
NMS	25.4	25.6	30.8	129.7	181.2
UNICEF	5.6	13.4	13.2	17.5	13.2
MOH/UNEPI	4.4	8.9	9.3	33.8	46.7
MCHIP	0	0.4	1.5	0.6	0.9
AFENET	1.8	1.8	1.4	2.9	5.1
CHAI	0	0	0.8	0.1	0.3
PATH	0	1	0.5	0.7	0.9
Catholic Relief Services	0	0	0.2	0.2	0.2
Red cross	1.9	0.2			
SABIN VACCINE INSTITUTE	0.1	0.1	0.1	0.1	0.3
AMREF				0.2	0.1
Grand Total	70.5	82.7	87.7	216.2	284.1

Providers of Immunization Services in Uganda (bn UGX)	2011/12 (2012)	2012/13 (2013)	2013/14 (2014)	2014/15 (2015)	2015/16 (2016)
Government facilities	52.6	51.2	54.9	159.8	216.7
DHO	6.1	15.6	16.5	34.5	38.0
Other administrative agencies	9.9	12.6	11.4	13.1	21.6
Rest of the world	1.8	3.3	4.9	8.8	7.9
Provincial or regional general hospitals	0	0	0.0	0.0	0.0
Grand total	70.5	82.7	87.7	216.2	284.1

Funding flows to Immunization Activities in bn UGX	2011/12 (2012)	2012/13 (2013)	2013/14 (2014)	2014/15 (2015)	2015/16 (2016)
Facility-based routine immunization	62.7	60.8	64.6	171.0	230.9
Immunization programmes	3.2	16.1	16.6	37.4	33.2
Program management	0.2	0.1	0.9	0.7	0.7
EPI Surveillance	1.3	0.8	2.0	1.6	4.6
Training	1.3	1.3	1.5	0.8	2.2
Not disaggregated	0	3.4	1.5	2.9	11.9
Supervision	0	0	0.5	1.0	0.0
Social mobilization, advocacy	1.6	0.3	0.1	0.8	0.5
Grand Total	70.5	82.7	87.7	216.2	284.1

Annex 4: Main sources of funds for EPI at the 7 DHOs

District	GoU (PHC)		GAVI		WHO		UNICEF		Other (AFENET)	
	FY 2014/15	FY 2015/16	FY 2014/15	FY 2015/16	FY 2014/15	FY 2015/16	FY 2014/15	FY 2015/16	FY 2014/15	FY 2015/16
Abim	3,307,000	3,307,000	0	12,829,150	0	130,676,155	38,789,000	0	0	0
Iganga	4,100,000	4,100,000	39,311,867	63,126,950	102,157,350	201,327,400	139,485,250	229,362,300	0	0
Kween	6,711,472	4,223,900	16,642,000	49,184,400	185,891,050	186,616,969	7,260,000	16,010,000	0	0
Lamwo	0	0	0	25,627,800	102,670,620	205,412,450	0	27,305,000	1,633,200	27,151,000
Masindi	6,600,000	5,800,000	28,392,000	66,318,000	0	47,560,500	26,065,000	24,714,500	0	0
Mitooma	4,463,100	5,097,600	17,182,000	56,851,267	84,184,200	130,049,002	0	22,708,400	0	0
Nakaseke	6,451,811	6,910,719	18,384,000	0	0	0	0	19,965,000	0	0
Total	31,633,383	29,439,219	119,911,867	273,937,567	474,903,220	901,642,476	211,599,250	340,065,200	1,633,200	27,151,000

Annex 5: Financial Mapping Coding applied based on the SHA Codes

FSR.Source Code	Source of Source Description	FS.CODE	FS.Description
			Transfers from government domestic revenue
FSR.1	Loans	FS.1	
FSR.1.1	Loans taken by government	FS.1.1	Internal transfers and grants
	Loans from international organizations	FS.1.1.1	Internal transfers within central government
FSR.1.1.1			
FSR.1.1.1.1	Concessional loans	FS.1.1.2	Internal transfers within region/local government
		FS.1.1.3	Grants from central government
FSR.1.1.1.2	Non-concessional loans		
FSR.1.1.1.3	HIPC/Debt relief	FS.1.1.4	Grants from regional/local government
	Other loans taken by government	FS.1.2	Transfers by government on behalf of specific groups
FSR.1.1.2			
		FS.1.3	Subsidies
	Institutional units providing revenues to financing schemes	FS.1.4	Other transfers
FS.RI.1			
FS.RI.1.1	Government	FS.2	Transfers distributed by government from foreign origin
FS.RI.1.2	Corporations	FS.2.1	Monetary transfers
FS.RI.1.3	Households	FS.2.1.1	From bilateral organizations
FS.RI.1.4	Non-profit institutions	FS.2.1.1.1	USG bilateral financial transfer
FS.RI.1.5	Rest of the world	FS.2.1.1.2	DfID bilateral financial transfer
		FS.2.1.1.3	ICA bilateral financial transfer
		FS.2.1.1.4	NORAD bilateral financial transfer
FS.RI.2	Total foreign revenues (FS.2+FS.7)		
		FS.2.1.1.5	Other agency bilateral financial transfer (Specify)
		FS.2.1.2	From multilateral organizations
		FS.2.1.2.1	From UNICEF direct financial transfer
		FS.2.1.2.2	From WHO direct financial transfer
		FS.2.1.2.3	From PAHO direct financial transfer
		FS.2.1.2.4	From other multilateral financial transfer (Specify)
		FS.2.1.3	From GAVI Alliance
		FS.2.1.4	From other sources
		FS.2.1.4.1	From BMGF financial transfers
		FS.2.1.4.2	From CHAI financial transfers
		FS.2.1.4.3	From other external/NGO source financial transfers (Specify)
		FS.2.2	Commodity transfers
		FS.2.2.1	From bilateral organizations
		FS.2.2.1.1	USG bilateral commodity transfer
		FS.2.2.1.2	DfID bilateral commodity transfer
		FS.2.2.1.3	ICA bilateral commodity transfer
		FS.2.2.1.4	NORAD bilateral commodity transfer
		FS.2.2.1.5	Other agency bilateral commodity transfer (Specify)
		FS.2.2.2	From multilateral organizations
		FS.2.2.2.1	From UNICEF commodity transfers
		FS.2.2.2.2	From WHO commodity transfers
		FS.2.2.2.3	From PAHO commodity transfers
		FS.2.2.2.4	From other external/NGO source commodity transfers (Specify)
		FS.2.2.3	From GAVI Alliance
		FS.2.2.4	From other sources
		FS.2.2.4.1	From BMGF commodity transfers
		FS.2.2.4.2	From CHAI commodity transfers
		FS.2.2.4.3	From other external/NGO source commodity transfers (Specify)
		FS.3	Social insurance contributions
		FS.3.1	Social insurance contributions from employers
		FS.3.2	Social insurance contributions from employees
		FS.3.3	Social insurance contributions from self-employed
		FS.3.4	Other social insurance contributions
		FS.4	Compulsory prepayment
		FS.4.1	Compulsory prepayment from households/individuals
		FS.4.2	Compulsory prepayment from employers
		FS.4.3	Other

FS.CODE	FS.Description
FS.5	Voluntary prepayment
FS.5.1	Voluntary prepayment from households/individuals
FS.5.2	Voluntary prepayment from employers
FS.5.3	Other
FS.6	Other domestic revenues not elsewhere classified (n.e.c)
FS.6.1	Other revenues from households n.e.c
FS.6.2	Other revenues from communities n.e.c
FS.7	Direct foreign transfers
FS.7.1	Direct foreign financial transfers
FS.7.1.1	Direct bilateral transfers
FS.7.1.2	Direct multilateral transfers
FS.7.1.3	Other direct foreign transfers
FS.7.2	Direct foreign aid in kind
FS.7.2.1	Direct foreign aid in goods
FS.7.2.1.1	Direct bilateral aid in goods
FS.7.2.1.2	Direct multilateral aid in goods
FS.7.2.1.3	Other direct foreign aid in goods
FS.7.2.2	Direct foreign aid in kind: Services (including TA)
FS.7.2.2.1	Direct bilateral foreign aid in kind
FS.7.2.2.1.1	From USG bilateral aid in kind
FS.7.2.2.1.2	From DfID bilateral aid in kind
FS.7.2.2.1.3	From ICA bilateral aid in kind
FS.7.2.2.1.4	From NORAD bilateral aid in kind
FS.7.2.2.1.5	From other bilateral aid in kind (Specify)
FS.7.2.2.2	Direct multilateral foreign aid in kind
FS.7.2.2.2.1	From UNICEF aid in kind
FS.7.2.2.2.2	From WHO aid in kind
FS.7.2.2.2.3	From PAHO aid in kind
FS.7.2.2.2.4	From other multilateral aid in kind (Specify)
FS.7.2.2.3	Other direct foreign aid in kind
FS.7.2.2.3.1	From BMGF aid in kind
FS.7.2.2.3.2	From CHAI aid in kind
FS.7.2.2.3.3	From other direct foreign aid in kind
FS.7.3	Other direct foreign transfers n.e.c
FS.7.9	Any other source not elsewhere classified (n.e.c)
FSR.1	Loans
FSR.1.1	Loans taken by government
FSR.1.1.1	Loans from international organizations
FSR.1.1.1.1	Concessional loans
FSR.1.1.1.2	Non-concessional loans
FSR.1.1.1.3	HIPC/Debt relief
FSR.1.1.2	Other loans taken by government
FS.RI.1	Institutional units providing revenues to financing schemes
FS.RI.1.1	Government
FS.RI.1.2	Corporations
FS.RI.1.3	Households
FS.RI.1.4	Non-profit institutions
FS.RI.1.5	Rest of the world
FS.RI.2	Total foreign revenues (FS.2+FS.7)

FA.CODE	FA.Description	HF.CODE	HF.Description
FA.1	General Government	HF.1	Government schemes and compulsory
FA.1.1	Central Government Agencies	HF.1.1	Government schemes
FA.1.1.1	Central Ministry of Health:	HF.1.1.1	Central government schemes
FA.1.1.1.1	Central Ministry of Health (EPI programme)	HF.1.1.2	State/regional/local government schemes
FA.1.1.1.2	Central Ministry of Health (other programmes)	HF.1.2	Compulsory contributory health insurance
FA.1.1.1.3	National Medical Stores/Central Cold Stores	HF.1.2.1	Social health insurance
FA.1.1.1.4	National Laboratories	HF.1.3	Compulsory medical savings accounts
FA.1.1.1.5	National Surveillance Agency	HF.2	Voluntary health care payment schemes
FA.1.1.2	Other Central Ministries and Units	HF.2.1	Voluntary health insurance schemes
FA.1.1.3	National Health Service Agency	HF.2.2	Non-profit institutions financing schemes
FA.1.1.4	National Health Insurance Agency	HF.3	Household out-of-pocket payment
FA.1.2	State/Regional/Local Govt Agents	HF.3.1	Community level financing
FA.1.2.1	Provincial Level Ministry of Health	HF.4	Rest of the world
FA.1.2.2	Other Provincial Level Ministries/Departments	HF.99	Not disaggregated
FA.1.2.3	District Level Ministry of Health		
FA.1.2.4	Other District Level Ministries/Departments		
FA.1.3	Social Security Agency		
FA.1.3.1	Social Health Insurance Agency		
FA.1.3.2	Other Social Security Agency		
FA.1.9	All other general government unit		
FA.2	Insurance Corporations		
FA.3	Other Corporations (Business other than insurance)		
FA.4	Non-Profit Institutions Serving Households		
FA.5	Households		
FA.5.1	Community organizations/groups		
FA.6	Rest of the World		
FA.6.1	International Organisations (Multilaterals)		
FA.6.1.1	UNICEF		
FA.6.1.2	WHO		
FA.6.1.3	PAHO		
FA.6.1.4	Other multilateral agent 1		
FA.6.1.5	Other multilateral agent 2		
FA.6.1.6	Other multilateral agent 3		
FA.6.2	Foreign Govts (Bilateral Agents)		
FA.6.2.1	Govt of USA: PEPFAR, CDC, USAID etc		
FA.6.2.2	Govt of United Kingdom:		
FA.6.2.3	Govt of Japan (JICA):		
FA.6.2.4	Govt of Norway (NORAD):		
FA.6.2.5	Other bilateral agency 1		
FA.6.2.6	Other bilateral agency 2		
FA.6.2.7	Other bilateral agency 3		
FA.6.3	Other Foreign Entities		
FA.6.3.1	BMGF		
FA.6.3.2	CHAI		
FA.6.3.3	Other international NGO (Sabin Vaccine Institute)		
FA.6.3.4	Other international NGO (AFENET)		
FA.6.3.5	Other international Foundation (PATH)		
FA.9	Any other agents not else where classified		

HP.CODE	HP.Description
HP.1	Hospitals
HP.1.1	General hospitals
HP.1.1.1	General hospitals public
<i>HP.1.1.1.1</i>	<i>National general hospitals</i>
<i>HP.1.1.1.2</i>	<i>Provincial or regional general hospitals</i>
<i>HP.1.1.1.3</i>	<i>District hospitals</i>
HP.1.1.2	General hospitals social security
HP.1.1.3	General hospitals NGO/private non-profit
HP.3	Providers of ambulatory health care
HP.3.1	Medical practices
HP.3.4	Ambulatory health care centres
HP.3.4.9	All other ambulatory centres
<i>HP.3.4.9.1</i>	<i>Government facilities</i>
<i>HP.3.4.9.3.1</i>	<i>PHC Type 1 (HC IV)</i>
<i>HP.3.4.9.3.2</i>	<i>PHC Type 2 (HC II)</i>
<i>HP.3.4.9.3.3</i>	<i>PHC Type 3 (HC I)</i>
<i>HP.3.4.9.3.4</i>	<i>PHC Type 4 (VHT)</i>
<i>HP.3.4.9.2</i>	<i>Social security facilities</i>
<i>HP.3.4.9.3</i>	<i>NGO facilities</i>
HP.4	Providers of ancillary services
HP.4.2	Medical and diagnostic laboratories
HP.6	Providers of preventive care
<i>HP.6.1</i>	<i>Country specific preventative providers</i>
<i>HP.6.2</i>	<i>Research providers</i>
<i>HP.6.2.1</i>	<i>Public research institutions</i>
<i>HP.6.2.2</i>	<i>Para-statal (quasi-public) research institut</i>
<i>HP.6.2.3</i>	<i>Private research institutions</i>
HP.7	Providers of health care system
HP.7.1	Government health administrative agencies
<i>HP.7.1.1</i>	<i>National MOH</i>
<i>HP.7.1.2</i>	<i>Provincial MOH</i>
<i>HP.7.1.3</i>	<i>District MOH</i>
HP.7.2	Social health insurance agencies
HP.7.3	Private health insurance administrative
HP.7.9	Other administrative agencies
HP.8	Rest of the economy
HP8.1	Households as providers of home health care
HP.8.9	Other industries n.e.c
HP.9	Rest of the world
HP.99	Not classified elsewhere

HC.CODE	HC.Description	FP.CODE	FP.Description
HC.1	Curative care	FP.1	Compensation of employees
HC.6	Preventive care	FP.1.1	Wages and salaries
HC.6.1	Information, education and counseling programmes	FP.1.3	All other costs relating to employees
HC.6.1.1	Social mobilization, advocacy	FP.1.3.1	Per diem
HC.6.2	Immunization programmes (not disaggregated)	FP.2	Self-employed professional remuneration
HC.6.2.1	Facility-based routine immunization service delivery	FP.2.1	Volunteer labour
HC.6.2.2	Outreach routine immunization service delivery	FP.3	Materials and services used
HC.6.2.3	Training	FP.3.1	Health care services
HC.6.2.4	Vaccine collection, storage and distribution	FP.3.2	Health care goods
HC.6.2.5	Cold chain maintenance	FP.3.2.1	Pharmaceuticals
HC.6.2.6	Supervision	FP.3.2.1.1	Vaccines and other goods
HC.6.2.7	Program management	FP.3.2.2	Other health care goods
HC.6.2.8	Other routine immunization programme activity	FP.3.2.2.1	Injection supplies
HC.6.5	Surveillance	FP.3.2.2.2	Other supplies
HC.6.5.1	EPI surveillance	FP.3.3	Non-health care services
HC.6.5.2	Record-keeping and HMIS	FP.3.3.1	Transport
HC.7	Governance and health system financing and	FP.3.3.2	Maintenance
HC.99	Not disaggregated	FP.3.3.3	Printing
HC.RI.3	Prevention and public health services	FP.3.4	Non-health care goods
HC.RI.3.3	Prevention of communicable diseases	FP.3.4.1	Utilities and communications
Cap. Investmt.	CAPITAL INVESTMENT	FP.3.4.2	Other
		FP.4	Consumption of fixed capital
		FP.4.1	Cold chain equipment
		FP.4.2	Vehicles
		FP.4.3	Other equipment
		FP.4.4	Buildings
		FP.5	Other items of spending on inputs
		FP.5.1	Taxes and customs duties
		FP.5.2	Other
		FP.99	Not disaggregated/n.e.c

Annex 6: Financial Mapping data extraction tool / questionnaire

**MAPPING OF FUNDING FOR IMMUNIZATION IN UGANDA
FOR ALL SOURCES OF FUNDING FOR IMMUNIZATION
(EXTERNAL PARTNERS/ DONORS)**

Years of the expenditure estimate: FY2014/15.	
Objectives of the form: To identify the origin of the funds used or managed by your institution during the year under study. To identify the recipients of those funds.	
Name of your Institution (Source of IMMUNIZATION funds):	
Your organisation's Financial Year:	
Person to Contact (Name and Title):	
Address:	E-mail:
	Phone (landline & cell)
Type of institution: Select category of institution with an "X"	Mark X for the appropriate type of organisation
	International NGO (eg Gates Foundation, Save the Children)
	Bilateral Agency (eg. USAID, DFID, PEPFAR): Govt:
	Multilateral Agency (eg. UNICEF, GAVI)

Who completed this form (data collector's name)?

Date: _____

Time of starting: _____ **Time of ending interview:** _____

Qualitative Information – funding activities & mechanisms

- 1) Please describe the IMMUNIZATION activities that you fund, support or deliver.

- 2) Please describe how institutions apply and access funds from your organisation.
Please describe the funding flow mechanisms.

- 3) Are there conditionalities that organizations must meet before financial transfers are made by your institution?

- 4) What are the reporting requirements for organizations receiving funds from your institution?

Now we move to the specific quantitative information of expenditure for IMMUNIZATION activities.

To whom did your Institution give / send funds for IMMUNIZATION services in Uganda in 2014/15:

List the organizations to which funds were transferred during the year under study.

Quantify the transferred funds.

Quantify the transferred funds *reported as spent* during the period under study. If no information is available regarding the amount spent, state "No Data" in the cell.

Destination of the funds (Name of the Institution and Person to Contact) 2014/15.	Total Funds transferred (indicate currency & amount) in 2014/15	Funds <u>spent per Immunization Activity</u> (eg. Administration of vaccine / vaccine research / immunization M&E etc). Provide name of activity, and amount <u>spent</u> per activity (if this is known by the funding source - If not known, indicate 'not disaggregated' and the amount spent in total).				
Institution: Contact Person:						
Institution: Contact:						
Institution: Contact:						
Institution: Contact:						
TOTAL:						

Recipients of non-financial resources (donated goods): List the institutions to which your agency donated non-financial resources, during **2014/15**.

Recipients of the non financial resources (Name of the Institution and Person to Contact) 2014/15.	Type of Goods donated & Quantity Received	Monetary Value of One Unit in Year of Assessment (& Currency)	TOTAL Monetary Value in Year Assessment (& Currency)
Institution: Contact Person:			
Institution: Contact:			
Institution: Contact:			
Institution: Contact:			
Institution: Contact:			
Institution: Contact:			
TOTAL VALUE:			

- 5) Are there any key difficulties faced by recipient organizations in efficiently spending the funds transferred to them by your institution?

- 6) What are the key causes of bottlenecks in the flow of funds from your institution to implementing organizations? In terms of planning, budgeting, disbursements, expenditure, and reporting?

- 7) What are the other issues/ challenges related to funding for IMMUNIZATION services?

- 8) How do you propose that these challenges could be addressed?

- 9) Any other comments, additional information, insights, or suggestions you wish to make?

Thank you.

**IMMUNIZATION SPENDING ASSESSMENT IN UGANDA
FOR ALL AGENTS OF FUNDING FOR IMMUNIZATION**

(Entities which receive funds and transfer them to other service providers)

Years of the expenditure estimate: FY 2014/15.		
Objectives of the form: To identify the origin of the funds used or managed by your institution during the year under study. To identify the recipients of those funds.		
Name of your Institution (Agent for IMMUNIZATION funds):		
Your organisation's Financial Year:		
Person to Contact (Name and Title):		
Address:	E-mail:	
	Phone (landline & cell):	
Type of institution: Select category of institution with an "X"	Central (national) government	
	Provincial government office	
	District government office (local government or district)	
	Private-for-profit national / business / insurance scheme	
	Private-for-profit international	
	National / local NGO/ CBO/ FBO (e.g. Churches)	
	International NGO (e.g. Gates Foundation, Save the Children)	
	Bilateral Agency (eg. USAID, DFID)	
Multilateral Agency (eg. UNICEF, GAVI)		

Who completed this form (data collector's name)?

Date: _____

Time of starting: _____ **Time of ending interview:** _____

Origin and Destination of the funds transferred to other orgs in 2014/15: List the institutions from which your agency received funds during the year under study, and the organization to whom you transferred those funds.						
ORIGIN OF FUNDS (2014/15) (If more sources than rows provided please use another form, labelled clearly)			DESTINATION OF FUNDS (2014/15) (If there were more than 2 Recipients for a Particular Source, please move to next row)			
Origins of the funds (Name of the Institution and Person to Contact)	Funds received (Indicate currency, local or US\$ or Euros)	Organizations to Whom these Funds were Sent	Amount transferred (Indicate Currency)	Funds spent per Immunization Activity (eg. Administration of vaccine / vaccine research / immunization M&E etc). Provide name of activity, and amount spent per activity (if this is known by the funding agent - If not known, indicate 'not disaggregated' and the amount spent in total).		
Institution: Contact:						
Institution: Contact:						
Institution: Contact:						
Institution: Contact:						
TOTAL:						

Origins and Destinations of non-financial resources (donated goods) in 2014/15: List the institutions from which your agency received non-financial resources, during 2013/14.			
Origins of the non financial resources (Name of the Institution and Person to Contact)	Type of Resource provided & Quantity	Total Monetary Value of Items Provided (& Currency)	Destination of the Non-Financial Goods (Name of the Institution and Person to Contact)

Institution: Contact:				
Institution: Contact:				
Institution: Contact:				
TOTAL:				

- 5) What are the key difficulties faced by recipient organizations in efficiently spending the funds transferred to them by your institution?

- 6) What are the key causes of bottlenecks in the funding mechanisms?

- 7) What are the other issues/ challenges related to funding for IMMUNIZATION services?

- 8) Any other comments, suggestions on the systems, processes etc?

Thank you.