# *UGANDA*

# *Routine Immunization (RI)* Program

# Year 4/5

# Implementation Plan

## *October 2017 – March 2019*

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Submitted by:
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## ACRONYMS AND ABBREVIATIONS

| | |
|---|---|
| AFENET | African Field Epidemiology Network |
| BMGF | Bill & Melinda Gates Foundation |
| CAO | Chief Administrative Officer |
| CBET | Competency-Based Education and Training |
| CDC | Centers for Disease Control and Prevention |
| CE | Centres of Excellence |
| CH | Child Health |
| CHAI | Clinton Health Access Initiative |
| CLA | USAID/Uganda's Collaborating, Learning and Adapting Agenda |
| cMYP | Comprehensive Multi Year Plan |
| CST | Country Support Team |
| CSO | Civil society organization |
| DHIS2 | District Health Information System Version 2 |
| DHMT | District Health Management Team |
| DHO | District Health Officer |
| DHS | Demographic and Health Survey |
| DHT | District health team |
| DQS&I | Data Quality Self-Assessment and Improvement |
| DTP | Diphtheria-Tetanus-Pertussis Vaccine |
| EGPAF | Elizabeth Glaser Paediatric AIDS Foundation |
| EOP | End of Program |
| EPI | Expanded Program on Immunization |
| Gavi | Gavi, The Vaccine Alliance |
| GFF | Global Financing Facility |
| HF | Health Facility |
| HMIS | Health Management Information System |
| HRH | Human Resources for Health |
| HSD | Health Sub-District |
| IIP | Immunization in Practice |
| IP | Implementing Partners |
| IPV | Inactivated Polio Vaccine |
| JA | Joint Appraisal |
| JSI | John Snow, Inc. |
| KMA | Knowledge Management Advisor |
| MCHIP | Maternal and Child Health Integrated Program |
| MCSP | Maternal and Child Survival Program |
| MEL | Monitoring, Evaluation, and Learning |
| MMEL | Measurement, Monitoring, Evaluation, and Learning |
| MNCH | Maternal, Newborn and Child Health |
| MOH | Ministry of Health |
| MR | Measles-Rubella |
| NMS | National Medical Stores |
| OPL | Operational Level Training |
| PDSA | Plan-Do-Study-Act Cycles |

| | |
|---|---|
| PMP | Performance Monitoring Plan |
| QAD | Quality Assurance Department of the Ministry of Health |
| QI | Quality Improvement |
| QRM | Quarterly Review Meetings |
| QWIT | Quality Work Improvement Teams |
| REC | Reaching Every Community/Child |
| REC-QI | Reaching Every Community/Child using Quality Improvement |
| RED | Reaching Every District |
| RHITES | Regional Health Integration to Enhance Services |
| RHITES EC | Regional Health Integration to Enhance Services in East Central Uganda |
| RHITES SW | Regional Health Integration to Enhance Services in South West Uganda |
| RI | Routine Immunization |
| RMNCAH | Reproductive, Maternal, Newborn, Child, and Adolescent Health |
| RMNCH | Reproductive, Maternal, Newborn, Child Health |
| RSST | Regional Supportive Supervision Team |
| SAGE | WHO's Strategic Advisory Group of Experts |
| STTA | Short Term Technical Assistance |
| SS4RI | Stronger Systems for Routine Immunization |
| SS | Supportive Supervision |
| Td | Tetanus-Diphtheria vaccine |
| TT | Tetanus Toxoid vaccine |
| TWC | Technical Working Committee |
| TWG | Technical Working Group |
| UBOS | Uganda Bureau of Statistics |
| UI-FHS | Universal Immunization through Strengthening Family Health Services |
| UNEPI | Uganda National Expanded Programme on Immunization |
| UNITAG | Uganda National Immunization Technical Advisory Group |
| UNICEF | United Nations Children's Fund |
| UPA | Uganda Paediatric Association |
| USAID | United States Agency for International Development |
| USG | United States Government |
| VHT | Village Health Team |
| VPD | Vaccine-Preventable Diseases |
| WHO | World Health Organization |

## SUMMARY

**Country**: Uganda

**Field Representative**: Gerald Ssekitto, Chief of Party, gssekitto@ug.jsi.com

**US-based Maternal and Child Survival Program Contact Person(s):** Koki Agarwal, Maternal and Child Survival Program Director, Koki.Agarwal@jhpiego.org; Victoria Rossi Lada, Senior Program Officer, victoria_lada@jsi.com; Rebecca Fields, Senior Technical Advisor, rebecca_fields@jsi.com; Kate Onyejekwe, Country Support Manager, kate_onyejekwe@jsi.com.

**Program Objectives:**

1. Strengthen UNEPI's institutional/technical capacity to plan, coordinate, manage, and implement immunization activities at national level.
2. Improve district capacity to manage and coordinate the immunization program as guided by UNEPI leadership.

**Financial Summary: Project Year 4/5 (October 1, 2017 – March 31, 2019)**

| Funding Status - Field Support | MCH |
|---|---|
| A. Total Obligations Received (Mods 1-21) | $4,600,000 |
| B. Expenditures through 9/30/2017 (Accrual Basis) | $2,990,101 |
| C. Estimated Pipeline 10/01/2017 (A - B) | $1,609,899 |
| D. Additional Pending Funds per FS Database (dated 6/08/2018) | $0 |
| E. Total Available and Pending Funds for PY04 and PY05 (C+D) | $1,609,899 |
| F. PY04-05 Budgeted with this workplan 10/1/2017 - 03/31/2019 | $1,609,899 |
| G. Variance from Available Funding (E - F) | $0 |

**Core Funding**: $41,562 in core funding has been added to this PY4/5 work plan and budget.

**Maternal and Child Survival Program Organizations:** John Snow, Inc. (country and immunization technical lead)

**In-Country Partners:** Uganda Ministry of Health (MOH), Uganda National Expanded Programme on Immunization (UNEPI) Quality Assurance Department (QAD); World Health Organization (WHO); Bill & Melinda Gates Foundation (BMGF)-funded Stronger Systems for Routine Immunization (SS4RI); Centers for Disease Control and Prevention (CDC); United Nations Children's Fund (UNICEF); Clinton Health Access Initiative (CHAI); Elizabeth Glaser Paediatric AIDS Foundation (EGPAF) (RHITES South West project), URC (RHITES East Central project), IntraHealth (RHITES East project), Gavi, The Vaccine Alliance; African Field Epidemiology Network (AFENET); Uganda Paediatric Association (UPA).

# BACKGROUND/APPROACH

The Maternal and Child Survival Program (MCSP) is a global U.S. Agency for International Development (USAID) cooperative agreement to introduce and support high-impact health interventions in 25 priority countries with the ultimate goal of preventing child and maternal deaths. MCSP in Uganda started in July 2014, and implementation of field activities is expected to end by December 2018.

### I. History of the program

MCSP's partnership with USAID/Uganda started with the 2012 initiation of technical assistance to strengthen routine immunization (RI) through MCSP's predecessor, the Maternal and Child Health Integrated Program (MCHIP). This was in response to a multi-donor collaboration with the Ugandan Ministry of Health (MOH)/Uganda National Expanded Programme on Immunization (UNEPI) and its development partners, including USAID, the Bill & Melinda Gates Foundation, and Gavi to develop and implement a two-year revitalization plan for immunization (2012-2014), focusing on service delivery, vaccine supply and quality, logistics, data management, and communications. Uganda's 2011 Demographic and Health Survey (DHS) indicated that approximately half of children (55%) aged 12-23 months were fully vaccinated. Penta1 coverage was at 95%, suggesting good access and initial use of immunization, but Penta3 coverage of 79% indicated suboptimal levels of protection from vaccine-preventable diseases (VPD) and a high dropout rate with nearly one in four children who began the immunization schedule not completing it. High dropout rates indicate the failure of the health system to continually reach the target population with convenient and high-quality services. As of 2017, WHO and UNICEF coverage estimates and the 2016 DHS indicate that Penta 3 has risen to 79%; but Uganda continues to be among the countries with the highest number of unimmunized children and is consequently prioritized for special attention as a Gavi "Tier 1" country.

With USAID's support, MCHIP worked to strengthen UNEPI and operationalize Uganda's national Reaching Every Community/Child (REC) strategy by adding elements of Quality Improvement (QI) to create the REC-QI approach, which introduces Plan-Do-Study-Act (PDSA) cycles. From 2012-2014, MCHIP developed the REC-QI approach and implemented its performance improvement cycle in five districts. Using REC-QI, MCHIP was able to improve facility-level planning and delivery of immunization services, introduce simplified tools for using data for action, involve communities to better map and reach all who needed services, and put mechanisms into place for feedback and problem solving with health personnel and non-traditional stakeholders such as community and other leaders.

In 2014, USAID/Uganda requested MCSP to continue MCHIP's work by expanding to 10 additional districts and continuing to provide technical support to UNEPI at the national level. Since then, MCSP has indeed expanded to 11 districts[1], supporting district health teams (DHTs) to improve capacity to manage RI; improve health service delivery and eventually increase vaccination coverage in a sustainable way; and help national level UNEPI staff to enhance policies, standards, and leadership toward stronger RI system. MCSP continues to implement alongside the "Stronger Systems for Routine Immunization" (SS4RI) project awarded to John Snow, Inc. (JSI) in the same year by the Bill & Melinda Gates Foundation, and using the same REC-QI methodology as MCSP/Uganda. SS4RI is taking the REC-QI approach to an additional 10 districts, bringing the total number of districts that will have been exposed to REC-QI to 26 before the end of both programs in 2019.

[1] The newest district of Butebo resulted after Pallisa was split into two districts, increasing the number of MCSP-supported districts from 10 to 11.

Additionally, in December 2016, MCSP was asked to expand its scope and implement a Child Health (CH) package of interventions at all levels of the health system through provision of technical assistance to the Regional Health Integration to Enhance Services (RHITES) projects in South West (SW) and East Central (EC) Regions, and to MOH at national level. In this 18-month MCSP-CH program, MCSP aims to identify, demonstrate and document effective approaches for the delivery and costing of a CH package of interventions in four districts, two in EC and two in SW regions of Uganda. Of particular note is that the MCSP-CH program will provide an opportunity to adapt REC or REC-QI to CH, opening the way for further integration of REC-QI approaches into broader Reproductive, Maternal, Newborn, Child Health (RMNCH) service delivery in Uganda.

## II. Geographic scope and technical focus

MCSP in Uganda continues to focus on strengthening RI both at national and district levels and enhancing access to and use of sustainable immunization services. At national level, MCSP strengthens UNEPI's institutional and technical capacity to plan, coordinate, manage, and implement immunization activities. At district level, with UNEPI leadership, MCSP improves district capacity to manage and coordinate the immunization program. MCSP's system-level inputs improve the quality, reliability, reach, utilization, and sustainability of immunization services, leading to improvements in immunization coverage in the long run, protection from VPD, and subsequent decreases in morbidity and mortality for children under five. Through the innovative REC-QI approach, MCSP gives program managers and implementers the practical tools to help them continuously find and provide timely vaccination to every eligible child and woman. REC-QI also encourages involvement of non-traditional stakeholders, innovation, local solutions to immunization challenges, team work, and stronger links between service providers and communities. Moreover, the continuous identification of successful approaches and the sharing of these approaches at different levels of the health system encourage learning and accelerate the strengthening of the RI system.

Over the past three years, MCSP has worked with USAID and MOH/UNEPI to successfully transition out of the first five MCHIP and MCSP Program Year (PY1) supported districts, and initiate REC-QI implementation in ten other districts in the SW, Eastern and EC Regions. MCSP's PY1 efforts focused on transitioning out of MCHIP districts and initiating support to Kanungu (SW Region) and Butaleja (Eastern Region) districts. In PY2, MCSP continued to support these two districts and initiated REC-QI in an additional four districts, namely Mitooma and Ntungamo in the SW Region, and Kibuku and Bulambuli in the Eastern Region. In PY3, MCSP transitioned out of the two PY1 districts, continued support in Mitooma, Kibuku, Ntungamo, and Bulambuli and initiated REC-QI in four additional districts of Mayuge (EC Region), Mbarara and Bushenyi (SW Region) and Pallisa (Eastern Region). This brings the total number of districts implementing REC-QI with support from MCSP to eleven including Butebo district (Eastern Region), which was split out of Pallisa district in late 2017. Please see Annex 3 for a Gantt chart summarizing the phased approach that MCSP takes to REC-QI implementation in the eleven supported districts.

Additionally, at the time of this workplan submission, MCSP has been implementing the MCSP-CH program in four districts - Ntungamo and Sheema districts in SW Region, and Luuka and Kaliro districts in EC Region. In these four districts, MCSP provides technical assistance to USAID's RHITES SW and EC programs to implement, cost and integrate lessons learned from adapting REC-QI to CH. The MOH has also asked MCSP to work with WHO and UNICEF to develop a guide for adapting REC-QI practices into RMNCH programs in the health sector. This, when approved, will support the role out of the Uganda Reproductive, Maternal, Newborn, Child, and Adolescent Health (RMNCAH) Sharpened Plan (RMNCAH interventions) under the Global Financing Facility (GFF) in 56 districts. Expansion in district coverage and scope of support will enable MCSP to increase the reach of the RI and RMNCH services it supports.

## III. Achievements to date

MCSP's immunization achievements in Uganda through the end of PY3 are summarized below.

***National achievements:*** In PY1, PY2 and PY3, MCSP provided technical assistance to the MOH to develop the first ever Immunization policy for Uganda; worked with other partners to adapt the new Reaching Every District (RED) guidelines to Uganda while also incorporating Equity principles; introduced and rolled out Inactivated Polio Vaccine (IPV); promoted the switch from tOPV (trivalent OPV) to bOPV (bivalent OPV); strengthened the technical capacity of health workers across all eleven MCSP-supported districts on various RI-related program elements that are critical for delivery of quality RI services including vaccine storage and management, records management, and data analysis and use; supported MOH/UNEPI to publish a newspaper pull-out documenting and comparing district EPI performance across all districts in Uganda and sensitizing the districts, health facilities and communities to important upcoming EPI activities such as new vaccine introduction. The EPI newspaper pull-out is the MOH's means of providing feedback on EPI performance to the districts and non-traditional stakeholders (e.g. the President, government ministers, members of Parliament, and district leaders including political and civic, and cultural leaders) for action. For example, the pull-out led to the Ntungamo district chairperson convening a meeting for the district health team, health sub-district teams, health facility-in-charge, Chief Administrative Officer (CAO), Assistant CAO, and sub-county leaders to discuss the district's poor RI performance as detailed in the Newspaper pull out, and develop a plan of action to improve it.

A notable achievement of the MOH/UNEPI in PY3 was the finalization, printing and distribution of the national EPI reference document, "Immunization in Practice Manual" (IIP), which was prepared over two years with extensive technical input from MCSP and SS4RI staff and incorporates several key concepts from REC-QI. In addition to being distributed to all health facilities, DHT, and pre-service health worker training institutions throughout the country, the IIP will serve as the key document guiding the training of frontline health workers and their supervisors. Therefore, the IIP extends the reach of some key REC-QI tools and methods throughout the country.

An additional achievement was the official decision by the MOH/UNEPI in late PY3 to adopt the REC-QI micro-planning process, developed and implemented by MCHIP/MCSP in the eleven MCSP-supported districts, as the standard approach for all districts countrywide. In PY4, MCSP, in collaboration with SS4RI, will draft a Micro-Planning Guide that clearly presents the step-by-step instructions for implementing this method of facility-based, quality and equity-informed REC microplanning.

***District-level achievements:*** In PY1, PY2 and PY3, MCSP worked with eleven districts to introduce the REC-QI approach and sustain its implementation (e.g., "Sustain" step), following an intensive introductory phase of support (e.g., "Orient" and "Establish and Strengthen" steps). Transition of REC-QI implementation to the district government is considered fully successful when - supportive supervision (SS) is conducted by the District Health Management Team (DHMT) as planned; data is used for action on a quarterly basis; data analysis is completed using the RED categorization tool and RI monitoring charts, and feedback to key stakeholders is provided by the DHMT; and MCSP's direct support is no longer necessary for REC-QI implementation to continue.

In PY2, MCSP supported six districts by training 287 district EPI stakeholders (including political, religious and civil leaders and health workers) in the REC micro-planning process as recommended by MOH/UNEPI; re-oriented 212 district supervisors to boost their knowledge of and capacity to utilize key REC-QI tools; and focused attention on the use of monitoring charts, REC micro-planning tools, PDSA cycles, use of child registers and tally sheets for data collection, and timely reporting.

In PY3 Q2, MCSP transitioned support out of Kanungu and Butaleja districts by conducting End-of-Support Dissemination Meetings, which are the final activities supported by MCSP in a given district. MCSP also trained 470 operational level health workers, piloting the use of Operational Level Training (OPL) training materials that were aligned to the revised IIP Manual and Competency-Based Education and Training (CBET). These OPL trainings provided an opportunity for health workers to update their knowledge and skills related to RI service delivery, identify problems associated with RI at the facility level, and orient health workers on how REC-QI can be used to strengthen RI services in the districts.

## IV. Collaboration and Coordination with other USAID and EPI Partners

MCSP/Uganda works collaboratively with other EPI partners in Uganda to strengthen the RI system and enable UNEPI to attain its objectives. For example, in PY1 and PY2, MCSP, WHO, UNICEF and other partners supported Data Quality Self-Assessment and continuously advocated for more routine attention to improving data quality. Through participation in the Gavi Joint Appraisal missions, MCSP leveraged opportunities to provide technical assistance and reinforce program contributions in RED/REC scale up. MCSP's collaboration with UNICEF resulted in an invitation to participate in UNICEF's equity assessment, which helped to identify and target immunization program support to the districts and villages with the largest numbers of under- or non-immunized children.

Additionally, MCSP's collaboration with another USAID award, RHITES-SW led by Elizabeth Glaser Paediatric AIDS Foundation (EGPAF), is contributing to the integration of immunization best practices and systems strengthening approaches, including RED, REC and REC-QI, to the RHITES strategy and approach. Based on a request from USAID, MCSP will provide similar technical assistance to the RHITES implementing partners (IPs) in the Eastern and EC regions during this workplan period. MCSP is increasingly finding challenges with human resources for health (HRH) and the need for demand generation as barriers to RI. MCSP will prioritize collaboration with key HRH and social behaviour change partners, including IntraHealth and FHI360 during this workplan period.

A key element of the PY4/5 workplan will be the intensification of documentation, as well as increased analysis and use of RI data to refine the REC-QI approach and share lessons learned with other EPI partners for scale up. MCSP will hire a Knowledge Management Advisor (KMA) to focus on documenting success stories and lessons learned highlighting what works and why it works. Through the documentation process, MCSP will share its learning with other partners, as well as recommendations for what components of REC-QI are adaptable to other RMNCH interventions beyond RI.

## V. New opportunities, challenges and changes in approach for PY4 /5

In PY4/5, MCSP will continue its efforts to strengthen the capacity of UNEPI and the supported districts to deliver high-quality RI services at scale using the REC-QI approach. MCSP will also continue to explore solutions to bottlenecks in successful REC-QI implementation by answering a set of learning questions and working with other partners and stakeholders, including civil society organizations (CSOs), to address them.

MCSP continues to encounter RI data quality challenges, including striking differences in coverage estimates depending on the source of data. In 2016, the DTP3 coverage estimate from the Government of Uganda's administrative reports was 111%, whereas the 2016 Uganda DHS estimated DTP3 coverage at 78.6% - basically identical to the WHO/UNICEF estimate for DTP3 coverage of 78% for 2016. The role of MCSP to address these challenges is crucial, including continued support to districts and health facilities to conduct routine Data Quality Self-Assessments and Improvement (routine DQS&I), promotion of the

use of child registers, and daily data harmonization between the data collected from tally sheets and the child registers at service delivery points.

In PY4, MCSP will continue to support the full introduction of REC-QI in nine districts (e.g., PY2 and PY3 districts where REC-QI implementation has not yet been fully transitioned to the government). MCSP's work in the PY2 districts of Ntungamo, Mitooma, Kibuku and Bulambuli will focus on developing strategies for sustaining key REC-QI activities over the long term, before gradually transitioning the work to the government. Support for REC-QI implementation in the four PY3 districts of Mbarara, Bushenyi, Pallisa and Mayuge will continue, and MCSP hopes to fully transition these districts to the government by the end of the program.

MCSP will continue its close, collaborative relationship with UNEPI, the MOH Resource Centre, the Quality Assurance Department (QAD), EPI Technical Working Committee (TWC), WHO, UNICEF, CSOs and other partners, in all efforts designed to strengthen RI systems within the context of Uganda's larger health system. MCSP will support the convening of technical coordination meetings; work to build the capacity of UNEPI and others to improve the quality as well as analysis, interpretation, and provision of feedback on immunization data; and engage with multiple stakeholders to garner attention and support for RI.

In September 2017, the Uganda National Immunization Technical Advisory Group (UNITAG) recommended that the MOH and UNEPI introduce the six-dose tetanus vaccination schedule recommended by WHO's Strategic Advisory Group of Experts (SAGE) in 2017. This new WHO schedule calls for three doses of tetanus toxoid (TT)-containing vaccine given in infancy (as part of pentavalent vaccine) and three booster doses to be given to both girls and boys at 12-23 months of age, four to seven years of age, and 9-15 years of age with intervals of four years between booster doses. The Government of Uganda has now ceased procurement of TT and begun purchasing Tetanus diphtheria (Td) using its own funds. Uganda's comprehensive Multi-Year Plan (cMYP) for immunization has been updated to reflect the change in tetanus vaccine and vaccination schedule. UNEPI is developing a policy brief for Td booster doses and is embarking on developing a detailed implementation roadmap. There are also plans to introduce rotavirus and Measles-Rubella (MR) vaccines in 2018. MCSP will provide technical support to the introduction of these new vaccines at national and district level, and help UNEPI and other EPI partners to identify opportunities for using every new vaccine introduction to reinforce selected aspects of the RI system. However, this support will be limited to technical input both at national and district levels, because MCSP does not have funding to support operational costs for new vaccine introduction.

## VI. Achieving Scale up and Sustainability of REC-QI approach

Since its inception, MCSP/Uganda has made deliberate efforts to ensure that its work is taken to scale and sustained after the project ends in 2019. The following activities have been incorporated into the PY4/5 work plan to support scale up and sustainability of REC-QI practices introduced by MCSP:

a. **Adaptation of REC-QI practices in IIP and pre-service tutors training curriculum**: REC-QI practices have been incorporated in the IIP, which has been printed and distributed to all health facilities and pre-service training institutions. In addition, REC-QI practices have been incorporated in the adapted EPI prototype curricula to be used by tutors in medical training institutions and tutors will be trained in the new curriculum.

b. **Adaptation of REC-QI tools in RMNCAH World Bank-supported project.** Through the MCSP–CH program, MCSP is working with MOH Child Health Division to adapt tools designed through REC-QI to support implementation of the GFF. This is envisioned to scale up the REC-QI approach and concepts beyond RI and beyond MCSP-supported districts. At the request of the MOH and in

close coordination with MCSP-CH team, the MCSP-RI team will draft an Adaptation Guide for applying selected REC-QI tools and practices to the wider RMNCAH interventions being implemented in 56 districts across Uganda.

c. **Development of Microplanning Guide**: Also at the request of the MOH, MCSP will develop a step-by-step Micro-Planning Guide to be used nationally for district and health facility managers to plan for RI. This Guide will be developed based on principles and tools of REC-QI and used by MOH and other key EPI partners.

d. **On-site mentorship and coaching for poorly performing districts:** MCSP will continue to deepen the capacity of DHTs and health sub-districts (HSDs) to carry out on-site mentorship and coaching for health workers in poorly-performing health facilities. This work will focus on four core REC-QI practices, namely, micro-planning, monitoring EPI performance, PDSA development and quality work improvement team (QWIT) functionality, and routine DQS&I. Key DHT staff (e.g., Assistant District Health Officer/MCH and/or District EPI Focal Person, Cold Chain staff, co-opted health facility staff from selected Centres of Excellence (CEs) and high-performing health facilities) will be given the responsibility to follow up the mentees in their work places, which will be reinforced during routine SS and quarterly review meetings (QRMs). MCSP staff will conduct this activity jointly with the identified district core team (mentors), and will gradually transition this support over to regular DHT/HSD integrated SS.

e. **Modelling Centres of Excellence (CEs) for RI:** 'Good practices' for RI were identified and agreed upon during the Learning and Sharing Forum for high-performing health facilities that MCSP convened in PY3. Implementation of these 'good practices' will be monitored to establish their outputs in selected health facilities and used as benchmarks to select one facility in each HSD (for a total of 14) as a CE. The extended DHMT will undergo a 2 to 3-day central training to agree on the support to these CEs. The mentees will be facility staff, while mentors will be DHT/HSD supervisors. The CEs will act as learning centres for the neighbouring facilities and will be used to further institutionalize REC-QI practices into the RI system.

## OBJECTIVES, EXPECTED RESULTS AND ACTIVITIES

### Objective 1: Strengthen UNEPI's institutional/technical capacity to plan, coordinate, manage, and implement immunization activities at national level.

#### Expected Results

- Lessons learnt from MCSP's work on REC-QI used to review and update national level reference documents/guidelines for EPI.
- Pre-service training of health workers in RI strengthened.
- Lessons learnt from MCSP/REC-QI scaled up into RMNCAH.
- MOH supported to develop new tools based on MCSP experiences.
- Improved quality and use of data for action.

MCSP will contribute to improvements in the planning processes for RI services in the following ways:

- The Uganda EPI prototype curriculum for pre-service health workers training institutions rolled out and used. Curricula printed and tutors oriented to its use, along with the IIP.
- The national EPI standards to incorporate components of REC-QI that are used as benchmarks for EPI service delivery.

- The step-by-step Microplanning Guide developed by MCSP in collaboration with other partners and finalized, disseminated and used for micro-planning by MOH and other EPI partners countrywide.
- The Guide to Adapting REC into RMNCAH finalized, serving as an avenue for cross learning between RI and other CH and maternal health programs.

## Strategy

At the national level, MCSP will continue its close, collaborative relationship with MOH, UNEPI, the Quality Assurance Department of the MOH (QAD), the Resource Centre, the Immunization Technical Committee, the National Disease Control Technical Working Group (TWG), MCH Cluster Technical Working Group, WHO, UNICEF, civil society organizations (CSOs) and other partners by providing technical assistance in areas specifically related to the strengthening of RI systems within the context of Uganda's health system. MCSP will continue to support the convening of the EPI technical committee meetings to build the capacity of UNEPI and others to analyse, interpret, and provide feedback on RI data, and to engage with multiple stakeholders to secure attention and support for RI. MCSP will also technically support the introduction of Rotavirus vaccine in 2018 and will work with UNEPI and other partners to identify opportunities for using new vaccine introduction to reinforce selected aspects of the RI system. Having been requested by MOH, MCSP will provide technical support to the MOH in adapting REC-QI approach into RMNCAH services under the World Bank funded **Uganda Reproductive, Maternal, and Child Health Services Improvement Project** described in the RMNCAH Investment Case. MCSP will use every opportunity to share lessons learned in the RI program with other national USAID IPs and MOH departments for support to those programs and possible scale up of the approaches across Uganda.

## Activities

***1.1 Participate in ongoing national fora to strengthen RI***

MCSP will continue its active participation in national EPI activities including attendance at USAID Chief of Party meetings, EPI TWC (formerly EPI TWG), new vaccine introduction meetings and activities, MCH TWG meetings, Quality Assurance TWG, and other fora that present opportunities to provide technical input and/or share lessons learned.

***1.2 Institutionalize and incorporate REC-QI concepts into UNEPI activities, materials, tools and where appropriate, into other health programs***.

In light of UNEPI's interest in expanding REC-QI to more districts and using certain REC-QI tools on an even broader basis beyond RI, MCSP will continue to increase its national level collaboration and coordination with UNEPI and other partners. MCSP staff will actively participate in national level activities and provide technical input in planning and review of documents, manuals, guidelines and writing reports. This will strengthen the relationship between UNEPI and MCSP, foster communication, mainstream the REC-QI approach, and build the capacity of UNEPI. MCSP will participate in UNEPI QRMs, EPI TWC, and national coordination committee meetings, as well as the Annual Joint Review Meeting. MCSP will use multiple opportunities to participate in and share with other USAID implementing partners to ensure optimal contribution to USAID/Uganda's Collaborating, Learning and Adapting (CLA) agenda, including through dissemination and use of the Microplanning Guide; the EPI prototype pre-service curriculum for training of health workers; and the REC-QI Adaptation Guide for RMNCAH. Tutors will be trained in the EPI prototype curricula and IIP as part of medical training and will be able to train others. OPL training materials will be completed to align with the IIP and CBET. In addition, within the 11 MCSP-supported districts, MCSP will identify health facilities to serve as CEs for RI and use them as learning centres to train other managers from within the districts and beyond those districts as appropriate.

***1.3 Strengthen capacity of MOH/UNEPI to give regular feedback to implementing partners and other stakeholders through newspaper pullout.*** MCSP will continue to build the MOH's ability to periodically provide feedback to key stakeholders (e.g., district leaders, Ministers, Members of Parliament, and the general public) through the publication of RI data in a newspaper pullout with nationwide distribution. These pullouts were highly successful in PY1, PY2 and PY3. MCSP will continue to provide technical assistance to UNEPI in PY4 to produce one newspaper pullout. Since UNEPI planned for the pullouts to be produced twice per year, the second pullout will be funded by SS4RI. As the strength of UNEPI grows, MCSP will be part of the effort to identify longer-term financing strategies for the publication. The pullout has attracted decision makers to RI with positive results. For example, in 2015, when the First Lady, then the Minister for Karamoja region, noticed in the Q2 2015 newspaper pullout that the region's performance was declining, she mobilized resources and personally spearheaded the campaign to improve Karamoja region's RI performance.

***1.4 Support introduction of new vaccines (rotavirus and MR).*** As requested by UNEPI, MCSP will support the roll out of rotavirus vaccine at the national level in February 2018, by participating in trainings, supporting monitoring, and providing technical assistance, particularly in the eleven MCSP-supported districts. The introduction of Td to replace TT was originally planned for PY3 according to the cMYP, but had not happened by the end of September 2017. A core activity to support the development of an implementation roadmap for Td introduction is described in Annex 4 below. MCSP will also provide technical support for the introduction of MR vaccine.

***1.5 Support MOH/UNEPI to analyse and use data with managers and other stakeholders.*** MCSP will support MOH/UNEPI to strengthen routine data analysis by extracting strategic information that can be used to inform decision-making at national and district level. MCSP will work with the Monitoring and Evaluation team of MOH/UNEPI to analyse data from the District Health Information System Version 2 (DHIS2) and MCSP's routine program monitoring data. Key findings such as those on coverage, drop out and vaccine stock outs and the factors affecting these parameters will be discussed in the UNEPI internal meetings, TWC, and CDC TWG. Findings on logistics management will be shared with relevant agencies such as the National Medical Stores and UNICEF. Additionally, the data will be shared with district leaders during the bi-annual District Leaders Forum for districts supported by MCSP and SS4RI, and during the QRMs that take place in districts. The purpose of this broad sharing of information is to ensure that the relevant bodies address challenges and gaps relating to their jurisdiction, and also come up with context-specific innovations to move performance to the next level.

In addition, MCSP will work with the MOH Resource Centre to incorporate the enhanced RED categorization tool into the DHIS2 to lessen data entry constraints. Following the incorporation of the RED categorization tool into DHIS2, the MOH Resource Centre and district data management staff will be trained on the RED categorization tool. MCSP will support UNEPI to use the enhanced RED categorization tool to analyse district RI performance, provide feedback to key stakeholders, and develop the EPI newspaper pullouts, all of which will enable UNEPI to use data to make more informed decisions.

***1.6 Integrate RI into health platform project (RHITES).*** MCSP will continue to collaborate with the bilateral RHITES projects and other implementing partners to explore the inclusion of more immunization core standards, informed by the REC-QI approach, into other USAID programmatic areas including the Family Health and Malaria Facility Tool. The REC-QI approach to health facility microplanning is a ready tool and process that has strong potential to support planning and implementation of other health interventions at health facility to further foster integration. Through CLA, more lessons from REC-QI implementation that are of interest to other health programs will be identified and shared. MCSP will continue to highlight

gaps in districts and health facilities (based on work in RI) beyond MCSP's mandate. MCSP will also consider holding regular sharing meetings with RHITES to facilitate CLA.

***1.7 Systematically share learning on REC-QI innovations and learning.*** MCSP sees tremendous value in sharing the lessons learned from its REC-QI implementation work with others at national and international level. The lessons and results from REC-QI implementation can influence policy and implementation at all levels and influence change in Uganda and beyond. MCSP will work at multiple levels of the health system to facilitate sharing of innovations and best practices from district level implementation of REC-QI with regions and national level stakeholders through the EPI TWC, National Disease Control TWG, and MCH Cluster TWG. Given the tight schedule of these committees, MCSP will also support an annual meeting of District Health Officers (DHOs) and other district leaders, with UNEPI and National Medical Stores (NMS) participation, to facilitate cross-learning and promote EPI review for all eleven MCSP-supported districts. Other RI partners such as RHITES-SW, East and EC will be invited to these review meetings to jointly share progress, lessons learned, and best practices on RI and health systems strengthening for scale up and to inform national policy and guidelines. Planning in Uganda is bottom up, meaning that sub-national plans are merged together to form a national plan. It is envisaged that the knowledge acquired in REC-QI by the districts will enable them to enhance the quality and content of district and national level EPI planning, using the Microplanning Guide being developed by MCSP and other partners.

MCSP is implementing two learning questions: (i) The Kapchorwa study, "**Enablers and Inhibitors of uptake and sustainability of REC-QI Implementation: Doer/Non-doer assessment, a case study of Kapchorwa District" and** (ii) The REC-QI learning question "**Assessing the effectiveness of the 'Reaching Every Community using Quality Improvement methods' (REC-QI) approach in strengthening the Routine Immunization system in six districts in Uganda"**. By the end of PY3, these two studies had received IRB ethical clearance and the Principal Investigators were appointed. Data collection was initiated in PY3 and will continue in PY4/5 as well as data analysis, report writing and dissemination of findings. It is hoped that findings from these studies will inform further implementation and scale-up of the REC-QI approach and sharing of tools and lessons learned with potential benefits to other health programs.

MCSP will continue to enhance cross-learning through regular communication with the Ethiopia Universal Immunization through Strengthening Family Health Services (UI-FHS) project, which, like the Uganda SS4RI project, is funded by the Bill & Melinda Gates Foundation. By capturing lessons learned through these three projects, MCSP expects to build support for scale up and sustainability of REC-QI beyond immunization services.

To complement the dissemination of learning and technical leadership, MCSP will hire a Knowledge Management Advisor (KMA) to support internal knowledge generation, and capture, share and apply program success stories through a systematic approach. This is aimed at increasing stakeholder engagement and facilitating wide dissemination and application of lessons learned. The KMA will also facilitate the development and dissemination of technical briefs and other communication products for partners and stakeholders. By systematically sharing successes and learning from implementing the REC-QI approach, MCSP's goal is to motivate and inspire other key stakeholders and share best practices which can be used for strategic planning in the future.

***1.8 Global learning question on RI process indicators.*** The global MCSP Immunization Team has a learning activity, funded with MCSP core immunization maternal and child health (MCH) funds, with the objective of identifying a set of process indicators that can be used to measure the performance of RI systems and to develop mechanisms that facilitate their use for decision-making by district and health facility level staff. Along with Nigeria and Malawi, Uganda was selected for this learning activity because it was already

reporting nine of the ten process indicators selected for examination. For the first round of data collection in Uganda, which was completed in PY3, MCSP conducted interviews concurrently with regularly scheduled supportive supervisions and other trips to the field, so no additional funding was necessary. However, for the second round of qualitative interviews, MCSP determined that some additional core funding would be needed to support the use of revised tools in Mbarara, Bushenyi, Pallisa and Mayuge Districts. Data gathered from this second round of collection will feed back into the ongoing global learning question on process indicators, and be shared across countries and globally in discussions around RI data. A full description of this activity is found in Annex 4 below.

***1.9 Implementation road map for six-dose tetanus vaccination schedule.*** Using MCSP core immunization Africa Bureau funds, MCSP will support UNEPI in developing the implementation road map for the six-dose tetanus vaccination schedule. MCSP Senior Technical Advisor for Immunization, Robert Steinglass, a well-known expert in maternal and neonatal tetanus (MNT) and RI strengthening, will work with UNEPI, other officials from the MOH and Ministry of Education and Sport, and representatives from key immunization partners to identify the full range of issues that need to be addressed and practical means for doing so. A proposed outline of the technical approach and outputs for this activity is provided in Annex 5 below.

**Table 1. Objective 1 ACTIVITY MATRIX**

| Objective 1: Strengthen UNEPI's institutional/technical capacity to plan, coordinate, manage, and implement immunization activities at national level. | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **ACTIVITY** | | **TASK** | **TIMELINE OCT. 2017-DEC. 2018** | | | | | **OUTPUTS/DELIVERABLES** |
| | | | **Q1** | **Q2** | **Q3** | **Q4** | **Q1** | |
| 1.1 | Participate in ongoing national fora to strengthen RI | 1.1.1 Participate in UNEPI monthly TWC with partners and share REC-QI lessons learned | X | X | X | X | X | Meeting notes/presentations with REC-QI lessons learned |
| 1.2 | Institutionalize and incorporate REC-QI concepts into UNEPI activities, materials and tools | 1.2.1 Support training for "Tutors" in the EPI prototype curricula and IIP | | X | | | | 30 tutors trained in enhanced IIP with REC-QI concepts and capable of training others on them |
| | | 1.2.2 Support alignment of OPL training materials to the revised IIP and CBET (dissemination of tools used by MCSP – workshop; national Training of Trainers; and developing /printing trainers guide) | | X | | | | OPL training materials developed |
| | | 1.2.3 Establish CEs for RI (national consensus workshop on good practices; selecting the health facility to become CE; onsite mentorship of staff to support health facilities to visit) and train health facility teams in health leadership | | | X | X | X | 14 CEs established to support capacity building of operational level health workers in RI |
| 1.3 | Strengthen capacity of MOH/UNEPI to give regular feedback to IPs and other stakeholders through newspaper pull out | 1.3.1 Provide TA and limited financial support for one EPI bi-annual newspaper pullout | | | | X | | One newspaper pullout published by MOH/UNEPI |

| Objective 1: Strengthen UNEPI's institutional/technical capacity to plan, coordinate, manage, and implement immunization activities at national level. | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **ACTIVITY** | | **TASK** | **TIMELINE OCT. 2017-DEC. 2018** | | | | | **OUTPUTS/DELIVERABLES** |
| | | | **Q1** | **Q2** | **Q3** | **Q4** | **Q1** | |
| 1.4 | Support introduction of new vaccines (Rotavirus, MR) | 1.4.1 Provide national level technical input in planning Rotavirus and MR introduction | | X | X | | | National plans for rotavirus vaccine introduction are prepared |
| 1.5 | Support MOH/UNEPI to analyse and use data for action (managers and other stakeholders) | 1.5.1 Work with MOH Resource Centre to incorporate the enhanced RED categorization tool into DHIS 2 | | X | | | | Enhanced RED categorization tool incorporated into DHIS2 |
| | | 1.5.2 Train MOH (Resource Centre/UNEPI) and district data management staff on the enhanced RED categorization tool. | | | | X | | All MOH (Resource Centre/UNEPI) and district staff trained in the use of enhanced RED categorization tool |
| 1.6 | Integrate RI into health platform project (RHITES) | 1.6.1 Hold coordination and sharing meetings with RHITES SW, E and EC to leverage on activities and resources | X | X | X | X | X | Number of CLA meetings, shared tools and work plan activities |
| 1.7 | Systematically share learning on REC-QI innovations and learning and dissemination of learning and technical leadership on strengthening of RI, including REC-QI | 1.7.1 Document REC-QI learning and share with MOH and partners in country and globally | X | | | | | Documented REC-QI learnings shared with MOH and globally |
| | | 1.7.2 Draft and disseminate fact sheets and technical briefs for distribution to in-country partners and stakeholders, topics may include:<br>• Integration of immunization with other RMNCAH programs;<br>• Lessons learnt from establishing CEs for RI | | X | X | X | | Technical briefs/fact sheets disseminated |
| | | 1.7.3 Present REC-QI lessons learnt at Africa Forum in South Africa on Quality and Safety in Health Care | X | | | | | REC-QI learnings shared globally |
| | | 1.7.4 Conduct data collection and analysis on two learning questions (as described in detail in Monitoring & Evaluation section) | X | X | X | | | Two completed studies, abstracts and reports written<br><br>Plans to improve effectiveness of REC-QI practices and effectiveness are in place |

| Objective 1: Strengthen UNEPI's institutional/technical capacity to plan, coordinate, manage, and implement immunization activities at national level. | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| ACTIVITY | | TASK | TIMELINE OCT. 2017-DEC. 2018 | | | | | OUTPUTS/DELIVERABLES |
| | | | Q1 | Q2 | Q3 | Q4 | Q1 | |
| | | | | | | | | Findings from at least one of the two learning questions shared with key stakeholders |
| | | 1.7.1 Participate at Annual EPI review and Gavi Joint Appraisal (JA). | | | X | | | Report on MCSP involvement in Gavi JA and Annual National Health Assembly partners |
| | | 1.7.2 Participate at Annual National Health Assembly | X | | | | | Experience from REC-QI shared with immunization colleagues in country and from other countries |
| 1.8 | Use a revised tool to complete second round qualitative interviews in four districts for the MCSP Immunization global learning question on RI process indicators.* | 1.8.1 Conduct qualitative interviews in Mbarara, Bushenyi, Pallisa and Mayuge Districts. | | | X | | | Promote cross-learning between up to 8 MCSP immunization focal countries through a global webinar. |
| 1.9 | Support UNEPI to develop an implementation road map for the six-dose tetanus vaccination schedule.* | 1.9.1 MCSP Senior Technical Advisor for Immunization will work with UNEPI, other officials from the MOH and Ministry of Education and Sport, MOH officials, and representatives from key immunization partners to identify the full range of issues that need to be addressed and practical means for doing so. | | | X | X | X | MOH/UNEPI implementation roadmap that provides guidance for roll-out and reflects and addresses most challenges in introducing Td and the six-dose tetanus vaccination schedule.<br><br>Separate report that outlines additional information needs that will extend beyond the scope/end date of MCSP.<br><br>Presentation for an upcoming regional meeting that WHO/AFRO proposes to conduct in late 2018 on Td and the six-dose tetanus vaccination schedule, that will share key points and learning from Uganda and have wider applicability to other countries considering the introduction of this new six-dose tetanus vaccination schedule. |

*indicates core-funded activities

## Objective 2: Improve district capacity to manage and coordinate the immunization program as guided by UNEPI leadership.

### Expected Results

DHTs will be empowered with better planning, implementation, and monitoring capacity for RI and able to apply similar principles into RMNCAH interventions. The following results are envisaged by end of program:

- Strengthened capacity to manage and coordinate RI services delivery at district and health facility level
- Improved reach and availability of RI services for hard to reach and marginalized communities through proper planning and linkages with communities
- Improved use of QI techniques by districts and health facilities in RI processes to evaluate their performance (active use of data for action), diagnose the causes of low performance, and develop and implement local solutions
- Improved quality and use of data for action at district and health facility level.

In PY4, specifically, MCSP will focus on the following:

- Using hands-on training and mentorship, DHT and health facility teams will be supported to develop detailed microplans at health facility level
- District teams and health facility teams will develop macro-maps for their districts that allocate each parish to a service centres, and each health facility describes where each community accesses services for RI, CH, and other health interventions
- Health facility teams will be capacitated to use QI techniques to evaluate their level of performance, diagnose the cause of their low performance, develop solutions, and implement them
- Health teams will be capable of working with community leaders (e.g., non-health stakeholders) at every level to identify and address gaps that hinder access and availability of RI, including mobilizing additional resources to address the gaps
- District and health facility teams adopt holistic approaches as they apply REC-QI practices to other RMNCAH programs to contribute to reduction of morbidity and mortality of children and mothers.

### Strategy

MCSP's key strategy for strengthening district capacity to manage and coordinate the immunization program is the REC-QI approach. This approach facilitates self-assessment, diagnosis, action planning, implementation of prioritized plans, and ongoing evaluation by district health managers and community level stakeholders to enable ongoing access and use of RI services to every eligible woman and child. The REC-QI methodology also promotes a learning environment and provides DHMT and health facility workers with user-friendly tools to better manage RI and link services to the communities. MCSP provides technical assistance, while the actual implementation is done by national and regional trainers, district, HSD, and health facility staff.

Figure 1 below illustrates the expected pathway from MCSP's inputs through a strengthened RI system to the overall EPI vision of protection from VPDs. It demonstrates that REC-QI inputs must have the critical inputs (e.g. vaccines, HRH, cold chain) to facilitate strengthening of the RI system, and contribute to the vision.

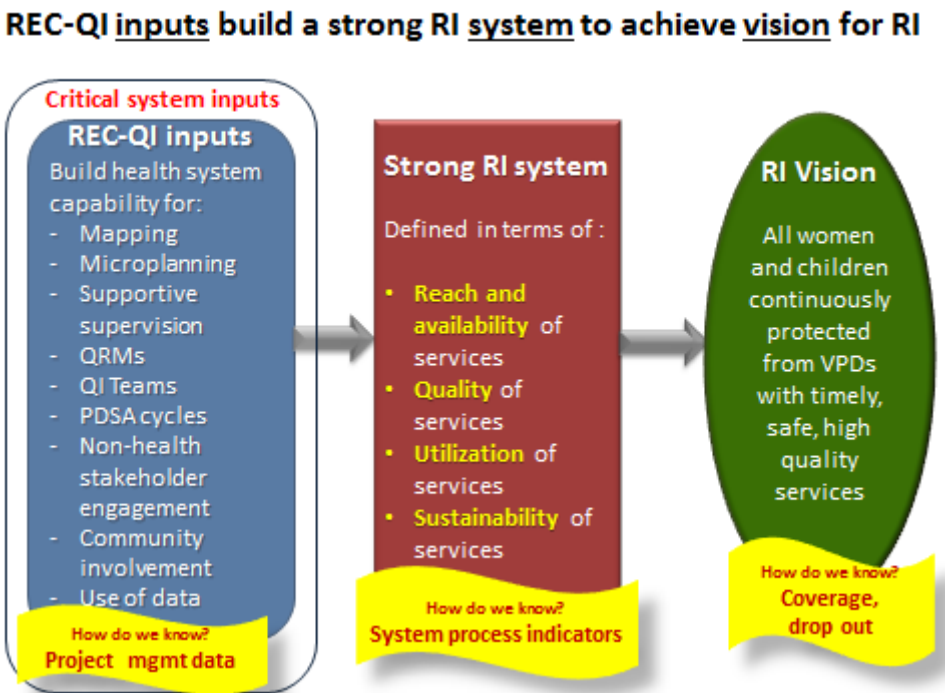



***Figure 1. REC-QI pathway.***

This introduces system process indicators, rather than coverage indicators alone, that can be used to measure the strength of an RI system. There are many inputs that must be in place for a strong RI system to increase RI coverage (achieving the vision), so these are measured separately under the REC-QI approach. The road map for REC-QI approach introduction in the districts has the following three steps:

- Step 1: Orient;
- Step 2: Establish and Strengthen;
- Step 3: Sustain.

REC-QI introduction takes 20 - 24 months, depending on the strength of the district's immunization system. The REC-QI essential processes, which MCSP will continue to focus on, include:

- *Macro and micro-mapping:* catchment areas identified for each health facility, with population targets for surviving infants and for other services; each health facility works with communities to identify updated outreach needs.
- *Supportive Supervision (SS):* Building a strong SS system that provides real-time support in the local context through on-site coaching and mentoring of health providers.
- *Quarterly review and monthly meetings:* With the participation of non-traditional stakeholders in health, including village chiefs and religious leaders, provide feedback, review progress and develop a plan of action for ongoing QI.
- *Data analysis and use:* Improve data quality and use by promoting routine DQS&I at all levels, and periodic analysis and use of data for action.

In PY4, MCSP will continue to work with UNEPI to implement and scale up adopted REC-QI concepts and tools, and inform national policies and guidelines. Efforts to incorporate REC-QI lessons and tools in other national manuals, tools, training, and plans will be vigorously undertaken through collaboration with RHITES-SW and RHITES-EC and the new MCSP-CH program to facilitate utilization of REC-QI as a planning

and management approach for other health services beyond immunization. For the sustainability of REC-QI achievements, MCSP will focus on capacity building for MOH, UNEPI, Regional Supportive Supervision Teams (RSSTs), DHT, and other stakeholders so that they can take over implementation in both program-supported and other districts.

## Activities

***2.1 Continue support to MCSP PY2 districts.*** The four districts that MCSP enrolled during PY2 (Ntungamo, Mitooma, Kibuku and Bulambuli) will enter the final "Sustain" step of REC-QI introduction, which will last 6-9 months.

***Strengthen SS systems at all levels in each district.*** In PY 3, MCSP enhanced the capacity of DHTs in SS though a ToT. In PY 4, MCSP will build on this by supporting the district SS teams to lead all SS efforts in their districts. To provide maximal benefit, SS will emphasize proper planning, on-the-job training, mentoring and feedback. In addition, the regional SS teams and non-health stakeholders in the district will be involved in the provision of integrated SS. SS will be used mainly to mentor more health workers in RI provision, PDSA, etc. Through exchange of supervisors (supervisors of one HSD supervising the other) intra-district peer-to-peer learning and support will be encouraged and facilitated.

***Support integrated quarterly reviews.*** MCSP will continue to support QRMs at district and HSD level. At HSD level, QRM participants include health facility-in-charges, sub-county civic and political leaders, and, where possible, representatives from the communities served by the HSD. Health facilities presentations of their work form the basis for discussion, learning and adaptation. At HSD, 2-3 outstanding PDSAs implemented by health facilities will be selected (using criteria) and properly documented, incorporating answers to the "so what" question and showing the impact of the interventions. Recommendations and outstanding PDSAs from the HSD QRM will be shared through the in-charge of the HSD and discussed at the DHMT.

At district level, the QRM is referred to as the DHMT meeting and participants include district civil leaders, political leaders, heads of departments, in-charges of HSDs, and health implementing partners. Each HSD district in-charge presents work, achievements, challenges, suggested solutions and support required from the district or MOH. The purpose of these meetings is to share experiences and lessons learnt, and provide an opportunity for the various stakeholders to learn, understand and appreciate the situation for support and adaptation. The leaders (e.g., non-health stakeholders) involvement is critical for soliciting their support to solve challenges and also for acknowledging and congratulating them when district teams achieve the set RI QI objectives.

***Promote peer learning through annual District Leaders Forum Meeting (DLM)***: MCSP will support an annual District Leaders Forum Meeting for the eleven MCSP-supported districts. Participants will include DHOs and non-health stakeholders to review performance, review the role of the district leadership in supporting RI, and promote peer learning. MOH, NMS and other partners will be invited to participate. Implementation of recommendations generated at these meetings will be assessed and actions taken through routine MCSP follow up with the district leadership.

***Support quality RI data collection, analysis and use.*** With routine DQS&I incorporated into SS tools, MCSP will promote institutionalization of routine DQS&I at various levels of service delivery through on-the-job training and mentoring.

***Support districts and lower level health facilities to operationalize REC-QI.*** In the new districts, the technical capacity to implement REC-QI will further be enhanced by a focused set of trainings

to include integrated SS, village health team (VHT) orientation to RI, QWIT formation and the PDSA approach to problem solving. This will enable the district teams to fully understand the basic principles of REC-QI and will promote more innovative thinking and their continuous use of the approach. While implementing these strategies, efforts will be made to collect data to document the impact of the interventions on the RI system and, by extension, protection from disease, immunization coverage and lives saved. By going beyond the REC-QI processes and inputs to answer the "so what?" question, MCSP will generate the evidence required to demonstrate that system-level improvements can contribute to the improved quality, timeliness, and use of RI services and enhanced protection from VPDs.

***2.2 Continue support to MCSP PY3 districts.*** The four districts that MCSP enrolled in PY3 (Mbarara, Bushenyi, Mayuge, and Pallisa*)* will enter the second step, "Establish and Strengthen". With the split of Pallisa into two districts, MCSP will need to expand its support into the newly-created district of Butebo.

***2.3 Monitoring and Evaluation***. See activity 3.1 in the Monitoring and Evaluation section below.

**Table 2. Objective 2 ACTIVITY MATRIX**

| **Objective 2: Improve district capacity to manage and coordinate the immunization program as guided by UNEPI leadership.** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **ACTIVITY** | | **TASK** | **TIMELINE OCT. 2017-DEC. 2018** | | | | | **OUTPUTS/DELIVERABLES** |
| | | | **Q1** | **Q2** | **Q3** | **Q4** | **Q1** | |
| **PY2 Districts (Bulambuli, Mitooma, Kibuku and Ntungamo)** | | | | | | | | |
| 2.1 | Step 3: Sustain District Health Systems to continue with REC-QI approach | 2.1.1 Provide technical assistance during integrated SS | | X | | | | 2 supportive SS visits conducted.<br><br>38 supervisors equipped with more knowledge and skills in conducting effective supervision Health facility staff knowledge and skills in REC-QI and better RI service delivery and management strengthened. |
| | | 2.1.2 Provide technical assistance during QRMs at District and HSD levels | | X | | | | Action plans jointly developed or updated by each district every quarter to facilitate improvements in coverage and quality of RI services jointly developed<br><br>DHMT members mentored in conducting more effective QRMs |
| | | 2.1.3 Provide technical assistance to organize and conduct exchange visits (through learning sessions organized at CEs) | | X | X | | | Experiences in REC-QI implementation shared across health facilities |

| Objective 2: Improve district capacity to manage and coordinate the immunization program as guided by UNEPI leadership. | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| ACTIVITY | | TASK | TIMELINE OCT. 2017-DEC. 2018 | | | | | OUTPUTS/DELIVERABLES |
| | | | Q1 | Q2 | Q3 | Q4 | Q1 | |
| | | 2.1.4 DHT and HSD follow up on REC-QI implementation, especially low performing health facilities | X | | X | | | Continued REC-QI implementation in the four districts |
| | | 2.1.5 Sustainability Forum meeting | | | X | | | End-of-support report and sustainability plan |
| **PY3 Districts (Mbarara, Bushenyi, Pallisa, Mayuge and Butebo)** | | | | | | | | |
| 2.2 | Step 2: Establish and strengthen district health systems to improve RI | 2.2.1 Train district supervisors on integrated SS | X | | | | | District supervisors equipped with more knowledge and skills in conducting more effective supervision<br><br>230 health facility staff knowledge and skills in REC-QI service delivery and management strengthened. (Average 2 HWs per facility) |
| | | 2.2.2 Provide ongoing SS | | | X | | X | District supervisors equipped with more knowledge and skills in conducting more effective supervision.<br><br>230 health facility staff knowledge and skills in REC-QI service delivery and management strengthened. (Average 2 HWs per facility) |

| Objective 2: Improve district capacity to manage and coordinate the immunization program as guided by UNEPI leadership. | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| ACTIVITY | | TASK | TIMELINE OCT. 2017-DEC. 2018 | | | | | OUTPUTS/DELIVERABLES |
| | | | Q1 | Q2 | Q3 | Q4 | Q1 | |
| | | 2.2.3 Provide technical assistance during QRMs at District and HSD levels | X | | | X | | Action plans jointly developed or updated by each district every quarter to facilitate improvements in coverage and quality of RI services jointly developed<br><br>DHMT members mentored in conducting more effective QRMs |
| | | 2.2.4 Provide technical assistance to organize and conduct exchange visits (through learning sessions organized at CEs) | X | | | X | | Experiences in REC-QI implementation shared across health facilities |
| | | 2.2.5 Conduct VHT trainings in Butebo and Mayuge districts | X | | | | | 2,560 VHTs trained and mentored on REC-QI implementation |
| | | 2.2.6 DHT and HSD follow up on REC-QI implementation, especially low performing health facilities | X | X | X | X | | Continued REC-QI implementation in 4 districts. |
| | | 2.2.7 REC-QI select tools training | X | | | | | Butebo district team trained in REC-QI select tools |
| 2.3 | Monitoring and Evaluation | 2.3.1 Train supervisors and district staff in data collection (quarterly data collection) | X | X | X | X | | 9 districts and 17 HSD assessed on progress in implementation of REC-QI |
| | | 2.3.2 Collect data from MOH, district and HSD only from all supported districts (bi-annual data collection) | | X | | X | | 320 health facilities assessed to establish the progress in implementation of REC-QI and RI activities |

## UPDATED LEARNING AGENDA

The following table summarizes two learning questions, the study methods that are being considered in each case, and the status of research protocols and IRB approvals where these are required.

| No. | LEARNING QUESTION | METHODOLOGY, INVESTIGATORS | STATUS UPDATE |
|---|---|---|---|
| 1 | *What are the tangible results of the REC-QI approach and the principle enablers/drivers of change along the REC-QI continuum from "Orient" to "Sustain"?* | <u>Methodology will include:</u><br>• Record review, including Health Management Information System (HMIS) data<br>• Process documentation<br>• Key informant interviews with facility, health sub-district, district, and UNEPI personnel and other partners in immunization in Uganda<br>• Focus group discussions with VHTs and community members<br><br><u>Investigator team will include:</u><br>• PI: Dr. David Kaawa Mafigiri (from Makerere University); Co-investigators: Gerald Ssekitto, Possy Mugyenyi, Disha Ali, and Rebecca Fields | Research protocol approved by USAID.<br><br>Protocol was approved by IRB (JSI for US and Makerere University for Uganda).<br>Training for qualitative data collectors was conducted in Q4 of PY3.<br><br>First round data collection was completed in PY3 Q4. Second round data collection will be completed in PY4 Q3. Preliminary findings from the first round of data collection can be shared with USAID as PPT slides. |
| 2 | *Enablers and Inhibitors of Uptake and Sustainability of REC-QI Implementation, a Doer / Non-doer assessment: A case study of Kapchorwa District.* | <u>Methodology will include:</u><br>• Record review<br>• Process documentation<br>• Key informant interviews with facility, health sub-district, district, and UNEPI personnel and other partners in immunization in Uganda<br>• Focus group discussions with VHTs<br><br><u>Investigator team will include:</u><br>• PI: Xavier Nsabagasani; Co-investigators: Gerald Ssekitto, Possy Mugyenyi, Disha Ali, and Rebecca Fields | Research protocol approved by USAID.<br><br>Protocol was submitted to IRB (JSI for US and Mulago Hospital for Uganda). Local IRB approval was obtained in PY3 Q4.<br><br>Data collection began in PY3 Q4 and will continue through PY4 Q1. The study will be completed, findings documented, and the report written by the end of PY5 Q1. |

## MONITORING & EVALUATION ACTIVITIES

As data collection, monitoring and use are integral to the REC-QI approach, many of MCSP's M&E activities will be carried out in conjunction with the REC-QI activities described under Objective 2.

**Activities**

***3.1 Work with the districts to collect, enter and clean data, and disseminate findings.*** MCSP will work with districts to collect data by engaging both the DHMT (Biostatisticians) and HMIS staff attached to health facilities. Involvement of the district teams in data collection will further build their capacity in data management and data QI. Data collected routinely will be analysed and disseminated for use at district and national level through routine activities described under Objective 1 and 2.

***3.2 Design and build a web-based database for internal sharing of information among MCSP staff.*** In PY3, MCSP identified a suitable online database and began its development and implementation. The database development will be completed in PY4 with migration of all previous program data and development of dashboards and standard report formats for program use. MCSP staff will also be oriented in use of the database to enhance internal information sharing on REC-QI implementation progress.

***3.3 and 3.4 Learning Questions***. See Updated Learning Agenda section above.

**Table 3. M&E ACTIVITY MATRIX**

| ACTIVITY | | TASK | TIMELINE OCT. 2017-DEC. 2018 | | | | | OUTPUTS/DELIVERABLES |
|---|---|---|---|---|---|---|---|---|
| | | | Q1 | Q2 | Q3 | Q4 | Q1 | |
| M&E 3.1 | Work with the districts to collect, enter and clean data, and disseminate findings | 3.1.1 Train supervisors and staff in data collection | | X | | X | | Knowledge and skills of supervisors in data collection for REC-QI interventions strengthened |
| | | 3.1.2 Collect data from MOH, District and HSDs only from all supported districts | X | X | X | X | X | Forms completed with data from MOH, all supported districts and |

| ACTIVITY | | TASK | TIMELINE OCT. 2017-DEC. 2018 | | | | | OUTPUTS/DELIVERABLES |
|---|---|---|---|---|---|---|---|---|
| | | | Q1 | Q2 | Q3 | Q4 | Q1 | |
| | | 3.1.3 Collect data from all levels (including health facilities) from all supported districts | X | | X | | X | HSDs submitted for entry into the project database |
| | | 3.1.4 Enter data collected for program monitoring | X | X | X | X | X | |
| | | 3.1.5 Share findings from the data collection exercises with all key stakeholders and ensure action plan development | X | | X | | X | Report of findings with plans to facilitate improvements in uptake of REC-QI practices and strengthening of RI systems |
| M&E 3.2 | Design and build a web-based database for internal sharing of information among MCSP staff | 3.2.1 Develop dashboards and report formats in the web data base | X | | | | | Completed database, training and launch completed, and use toward more efficient and effective sharing information about progress of REC-QI implementation and its effectiveness strengthened |
| | | 3.2.2 Train staff on how to use the database | | X | | | | |
| M&E 3.3 | Collect, analyse and share findings for the MCSP learning question: "*Enablers and Inhibitors of Uptake and Sustainability of REC-QI Implementation, a Doer / Non-doer assessment: A case study of Kapchorwa District.*" | 3.3.1 Analyse and share findings from the assessment | X | X | | | | Completed report |
| | | 3.3.2 Compile and share final report from the assessment | | X | X | | | |
| M&E 3.4 | Collect, analyse and share findings for the MCSP learning question: *"What are the tangible results of the REC-QI approach and the principle enablers/drivers of change along the REC-QI continuum from "Orient" to "Sustain"?"* | 3.4.1 Data collection | X | | | | | Data collection for this study will begin in PY3 and end in PY4. Findings will be analysed, documented and disseminated in PY4/5. If available, the study's initial results will be used to guide PY4 planning and refinement of the REC-QI approach. |
| | | 3.4.2 Analyse initial findings and use them during program review and planning for PY4 to refine MCSP's REC-QI strategy | | X | X | | | |

## SUSTAINABILITY

Documentation and dissemination of lessons learned are a key effort in promoting the sustainability and legacy of MCSP's support. MCSP will disseminate key knowledge management and technical products to facilitate further understanding, update and scale up of the REC-QI approach and lessons. Program documentation will include technical briefs, learning question reports, success stories, toolkits, a photo essay and video. A close-out event will be held in Kampala to further disseminate MCSP's achievements and lessons learned with key stakeholders.

**Objective 1*:* Strengthen UNEPI's institutional/technical capacity to plan, coordinate, manage, and implement immunization activities at national level.**
The work of MCSP has been well appreciated by the MOH/UNEPI and other partners, and is gradually being institutionalized into UNEPI. The pool of national trainers and UNEPI staff that MCSP has supported are equipped to continue the REC-QI work started by MCSP. So far, REC-QI concepts have been incorporated into the IIP Manual, the key immunization operational and reference manual for all service providers, and the EPI prototype curricula for pre-service training of health workers in the country. The ongoing review and update of the national EPI standards reflects REC-QI concepts and practices as well. Additionally, the MOH/UNEPI has requested MCSP to develop a Microplanning Guide that will be used countrywide for EPI micro-planning using the facility-based, quality-informed method developed by MCSP/MCHIP. As well, the MOH requested the MCSP Child Health (CH) program to develop a guide for adaptation of REC-QI into RMNCAH interventions under a project funded by World Bank. These key documents will promote the sustainability and legacy of MCSP by institutionalizing REC-QI into UNEPI for use countrywide by MOH, districts, health facilities and other partners.

**Objective 2: Improve district capacity to manage and coordinate the immunization program as guided by UNEPI leadership.**
All DHT in the 11 MCSP-supported districts, HSD teams and health facility teams managing EPI have been trained in REC-QI implementation. In addition, all health workers managing EPI in the nine districts where REC-QI implementation has been active during PY2 and PY3 have undergone OPL with training materials that were updated to incorporate REC-QI principles. Consequently, health workers will continue to utilize the knowledge and skills gained from REC-QI concepts and MCSP-supported trainings even after the closure of MCSP.

Additionally, MCSP is working closely with RHITES-SW, East and EC to support REC-QI activities in the districts they support including onsite mentorship during SS and the integration of VHT micro-planning into their Community Dialogue Meetings. MCSP's engagement of district leaders (e.g., non-health stakeholders) has sensitized these leaders to the challenges facing EPI and involved them in the monitoring of their districts' EPI performance. In many cases, this level of engagement has motivated these district leaders to leverage their own resources (through the government-supported Primary Health Care grant budgets) to address critical bottlenecks and challenges to RI.

Lastly, MCSP will establish CEs (one CE in each HSD) to be used as learning centres, with each CE supporting five health facilities. The capacity of the staff at these CEs will be strengthened, and selected members of the DHT will be trained as mentors to act as champions for ongoing REC-QI implementation. MCSP will also collaborate closely with RHITES staff in SW, East and EC regions to link them to the CEs, ensuring a continuity of technical support after MCSP's closure.

# CLOSE OUT PLAN

The MCSP global program is scheduled to end in December 2019, pending approval of a no-cost extension request. Given the global program end date, MCSP Uganda RI plans to close out country operations by the end of December 2018 and complete full administrative closeout of the program by the end of March 2019. Rather than to submit an additional workplan for the final six months of the program (e.g., October 2018 to March 2019), a draft Close Out Plan is provided below (see Table 4). Table 4 is an illustrative timeline for close-out activities, which will be finalized during the last quarter of PY4.

**Table 4. Initial Close Out Plan**

| ACTIVITY/SUBACTIVITY | | TIMELINE OCT. 2017-MAR. 2019 | | | | | | OUTPUTS/DELIVERABLES |
|---|---|---|---|---|---|---|---|---|
| | | PY4 | | | | PY5 | | |
| | | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | |
| CO 1 | **Develop detailed Close Out Plan and illustrative Disposition Plan and share with USAID six months prior to end date.** Gantt chart will include tasks, responsible individuals, and deadlines corresponding to end date for MCSP Uganda. | | | | X | | | Closeout Gantt chart and illustrative inventory disposition plan |
| CO 2 | **Complete program activities** | | | | X | | | Planned program activities |
| CO 3 | **Finalize and disseminate knowledge management/communication products per documentation plan.** Program documentation will include project reports, technical briefs, success stories, etc. | | | | X | X | | Program documentation |
| CO 4 | **Hold Close Out Event/Dissemination Meeting** | | | | | X | | Close Out Event or Dissemination Meeting |
| CO 5 | **Submit End-of-Program (EOP) Report to USAID** | | | | | | X | EOP Report |
| CO 6 | **Submit Inventory Disposition Plan to USAID** | | | | | | X | Inventory Disposition Plan |
| CO 7 | **Upload all relevant program documents to the Development Experience Clearinghouse (DEC)** | | | | | X | X | List of all products uploaded to DEC |
| CO 8 | **Complete staff transitions** | | | | | X | X | Staff transitioned to another project or staff terminated |
| CO 9 | **Submit final financial report to USAID** | | | | | | X | Final financial report |

# MANAGEMENT PLAN

## Management

JSI is MCSP's lead organization in Uganda and its global technical lead for immunization. In these roles, JSI provides all in-country staff, including the MCSP/Uganda Chief of Party (COP), National Technical Director (NTD) and Finance and Administration Director (FAD). JSI also oversees management of the project office, hires all technical, administrative and support staff, and administers all local activity costs.

## Staffing

In Uganda, MCSP has a highly qualified and experienced team to manage the program and maximize use of local expertise and high-level technical support. All in-country staff positions are Ugandans. All MCSP/Uganda staff are based in Kampala, with frequent travel to the districts. Several changes have been made in the staffing and support structure that are reflected in the organizational chart in Figure 2. A new FAD was hired to provide operational oversight to the program. Also, the former MCSP Monitoring, Evaluation, and Learning (MEL) Advisor, Timothy Kiyemba, resigned and was replaced with Irene Ochola who was formerly the MEL technical lead for SS4RI and is now in charge of MEL for both MCSP and SS4RI. To support the MEL Advisor during this critical time in the program when the two learning studies are being completed, a new MEL Specialist was recruited. Additionally, a KMA was recruited to facilitate the documentation of key concepts, tools, processes, results, lessons learned, best practices, and recommendations; promote knowledge exchange; and develop processes for systematic knowledge sharing and dissemination. The KMA position will be cost-shared with MCSP CH and SS4RI programs.

### Reporting

MCSP will adhere to USAID/Washington's reporting requirements and, within the resources available, will provide timely responses to all requests for information from USAID/Uganda. MCSP's reporting requirements normally include: quarterly progress updates, annual progress reports, and EOP reports. Indicators and other reporting requirements will be specified in the final Performance Monitoring Plan (PMP).

### Branding

MCSP operates in Uganda as a single entity. Partners, including the MCSP lead partner, will use the MCSP name exclusively and will follow USAID's branding guidelines in all instances. When referred to in publications and in presentations, MCSP and the MCSP staff will be referred to as "USAID's Maternal and Child Survival Program" or "USAID's MCSP". MCSP's overarching branding plan is available upon request.

**Figure 2. MCSP/UGANDA ORGANOGRAM**

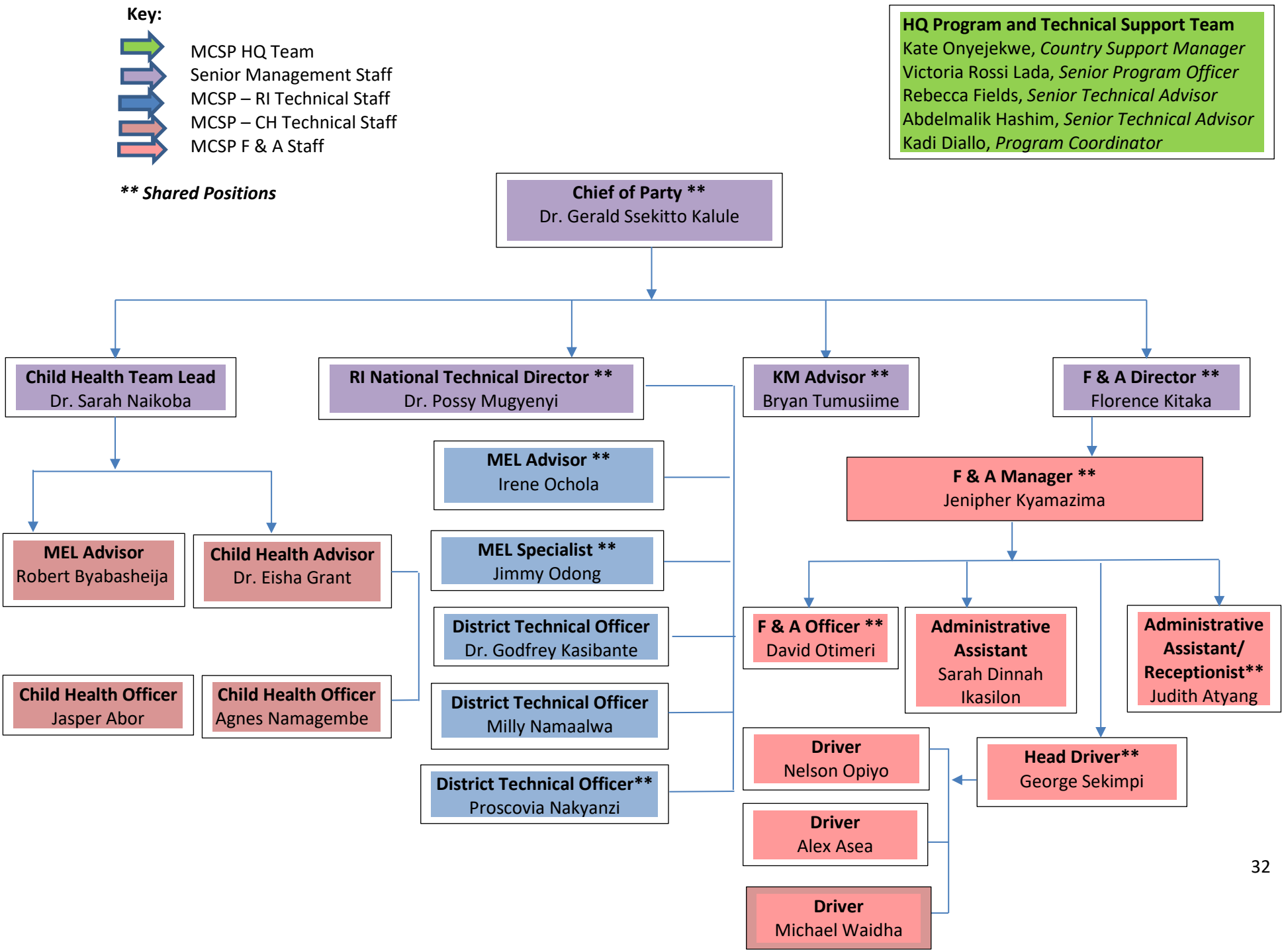


**Table 5. Program Management ACTIVITY MATRIX**

| ACTIVITY | | TASK | TIMELINE OCT. 2017-MAR. 2019 | | | | | | OUTPUTS/DELIVERABLES |
|---|---|---|---|---|---|---|---|---|---|
| | | | PY4 | | | | PY5 | | |
| | | | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | |
| 4.1 | Program Management | 4.1.1 Finalize PY4/PY5 work plan and obtain Mission and AOR approval | X | X | X | | | | Final, approved PY4/5 work plan |
| | | 4.1.2 Submit quarterly, annual, and EOP reports to Mission | X | X | X | X | X | X | 4 quarterly reports, 1 annual report, and 1 EOP report submitted |
| | | 4.1.3 Conduct annual review, including country level and global level program reviews, support program documentation and dissemination efforts, and provide program management support for closeout (see Close Out Plan above and STTA Plan below) | | | X | X | X | X | Program reviews, EOP meeting, and Close Out completed |
| | | 4.1.4 Participate in the monthly USAID COP's meetings | X | X | X | X | X | | Minutes from USAID COP's meeting shared with Country Support Team (CST) |

# Annex 1: UPDATED PERFORMANCE INDICATORS AND TARGETS

The most recent version of the PMP was approved on November 28, 2016.

- Program indicators are not cumulative; PY1-PY3 results and PY4 targets are delineated in the table below.
- During PY3, MCSP worked in eleven districts
  - PY1 supported districts: Butaleja and Kanungu
  - PY2 supported districts: Ntungamo, Mitooma, Kibuku, and Bulambuli
  - PY3 supported districts: Mbarara, Pallisa, Bushenyi, Mayuge, and Butebo

| INDICATOR | | DEFINITION AND DISAGGREGATORS | DATA SOURCE / COLLECTION METHOD | FREQUENCY OF DATA COLLECTION | PY1 RESULTS | PY2 RESULTS | PY3 RESULTS | PY4 TARGET |
|---|---|---|---|---|---|---|---|---|
| **Project Goal: To decrease under five mortality through increased immunization rates and coverage** | | | | | | | | |
| 1 | Number of deaths in the under five children per 1000 live births (context) | Under five mortality: The probability of a child dying between birth and the fifth birthday | Uganda DHS (UDHS) | 5 years | - | - | 64<br>UDHS 2016 | * |
| 2 | DTP 3 coverage nationwide | DPT refers to a class of combination vaccines against three infectious diseases in humans: diphtheria, pertussis (whooping cough), and tetanus. Penta protects against these and additional diseases namely; Hepatitis B, Haemophilus Influenza Type B Virus. To be fully protected, children must receive three doses of the vaccine, administered at the ages of one month, one month and a half, and three months. | **Source** : DHIS2 and the Uganda Bureau of Statistics (UBOS) Census 2014 Projections for the target population | Annually | | | Period: October 2016 to September 2017<br><br>94.3%<br>(1,534,196/1,627,387) | 90% |

| INDICATOR | | DEFINITION AND DISAGGREGATORS | DATA SOURCE / COLLECTION METHOD | FREQUENCY OF DATA COLLECTION | PY1 RESULTS | PY2 RESULTS | PY3 RESULTS | PY4 TARGET |
|---|---|---|---|---|---|---|---|---|
| 3 | DTP 3 coverage by district | DPT refers to a class of combination vaccines against three infectious diseases in humans: diphtheria, pertussis (whooping cough), and tetanus. Penta protects against these and additional diseases namely; Hepatitis B, Haemophilus Influenza Type B Virus. To be fully protected, children must receive three doses of the vaccine, administered at the ages of one month, one month and a half, and three months. | **Source** : DHIS2 and UBOS Census 2014 Projections for the target population | Annually | 94%<br><br>86,918<br><br>(target is 92,431 for MCHIP and MCSP districts combined)<br><br>101%<br>20,295 (target is 20,106 for MCSP districts only) | Period: Oct 2015 to Sept 2016<br><br><u>Overall:</u> 82% *(57,952/70,257)*<br><br>**<u>PY1 Districts</u>**<br>Kanungu: 88% (10,075/11,502)<br>Butaleja: 92% (10,280/11,138)<br><br>**<u>PY2 Districts</u>**<br>Ntungamo: 80% (17,623/22,072)<br>Mitooma: 83% (6,924/8,368)<br>Kibuku: 82% (7,588/9,216)<br>Bulambuli: 69% (5,462/7,961) | **<u>PY1 districts:</u>**<br>Kanungu – 86% (10,218/11,848)<br>Butaleja – 91% (10,409/11,472)<br><br>**<u>PY2 districts:</u>**<br>Ntungamo – 77% (17,482/22,736)<br>*Mitooma – 68% (5,869/8,620)<br>Kibuku – 89% (8,478/9,492)<br>Bulambuli – 61% (4,988/8,200)<br><br>**<u>PY3 districts:</u>**<br>Mbarara – 83% (18,385/22,208)<br>Bushenyi – 77% (8,505/11,016)<br>Pallisa – 90% (16,360/18,180)<br>Mayuge – 81% (17,942/22,236) | 90% |
| 4 | Number of children who at 12 months have received three doses of DPT/Penta vaccination from a U.S Government (USG)- | DPT refers to a class of combination vaccines against three infectious diseases in humans: diphtheria, pertussis (whooping cough), and | DHIS2 (HMIS105)<br><br>**Source** : DHIS2 and UBOS Census | Annually | 86,918 (MCHIP and MCSP districts combined) | Period: Oct 2015 to Sept 2016<br><br>**<u>Overall:</u>** 57,952 | Period: Oct 2016 to Sept 2017<br><br>**<u>Overall</u>**: 118,636 | 133,991 (10 districts targeted under MCSP support) |

| | INDICATOR | DEFINITION AND DISAGGREGATORS | DATA SOURCE / COLLECTION METHOD | FREQUENCY OF DATA COLLECTION | PY1 RESULTS | PY2 RESULTS | PY3 RESULTS | PY4 TARGET |
|---|---|---|---|---|---|---|---|---|
| | supported immunization program (Standard 3.1.6 – 61) | tetanus. Penta protects against these and additional diseases namely; Hepatitis B, Haemophilus Influenza Type B Virus. To be fully protected, children must receive three doses of the vaccine, administered at the ages of one month, one month and a half, and three months. | 2014 Projections for the target population | | 20,295 (MCSP districts only) | **PY1 Districts**<br>Kanungu: 10,075<br>Butaleja: 10,280<br><br>**PY2 Districts**<br>Ntungamo: 17,623<br>Mitooma: 6,924<br>Kibuku: 7,588<br>Bulambuli: 5,462 | **PY1 Districts:**<br>Kanungu – 10,218<br>Butaleja – 10,409<br><br>**PY2 Districts:**<br>Ntungamo – 17,482<br>Mitooma – 5,869<br>Kibuku – 8,478<br>Bulambuli -4,988<br><br>**PY3 Districts:**<br>Mbarara – 18,385<br>Bushenyi – 8,505<br>Pallisa – 16,360<br>Mayuge – 17,192 | |
| 5 | % of planned RI sessions were conducted in the year (IP custom) | Immunization sessions include static and outreach:<br>• *Static:* RI sessions conducted at a HF with an EPI fridge<br>• *Outreach:* RI sessions conducted away from the HF.<br>RI sessions conducted is a proxy for measuring availability of immunization services. | Health facility assessment form | Annually | ***86.2%*** *(MCSP districts only)* | ***PY1 Districts:*** *84% (2,233/2,663) Kanungu: 76%(1,228/1,626) Butaleja: 97% (1,005/1,037)*<br><br>***PY2 Districts (baseline): 78% (3,269/4,170) Ntungamo: 94% (1,521/1,613) Mitooma: 78% (559/717) Kibuku: 52% (402/764) Bulambuli: 73% (787/1,076)*** | **PY1 Districts:**<br>90% (4,132/4,594)<br>Kanungu – 84% (2,530/3,018)<br>Butaleja – 102% (1,602/1,576)<br><br>**PY2 Districts:**<br>74% (13,754/18,707)<br>Ntungamo – 86% (4,748/5,526)<br>Mitooma – 87% (2,467/2,830)<br>Kibuku – 70% (2,643/3,758)<br>Bulambuli – 59% (3,896/6,593) | 93% |

| | INDICATOR | DEFINITION AND DISAGGREGATORS | DATA SOURCE / COLLECTION METHOD | FREQUENCY OF DATA COLLECTION | PY1 RESULTS | PY2 RESULTS | PY3 RESULTS | PY4 TARGET |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | **PY3 Districts:**<br>Mbarara – 81% (7,144/8,775)<br>Bushenyi – 81% (3,983/4,940)<br>Pallisa – 58% (5,369/9,273)<br>Mayuge – 76% (4,959/6,519) | |
| **Objective 1: Strengthened institutional/technical capacity for UNEPI to plan, coordinate, manage, and implement immunization activities in Uganda** | | | | | | | | |
| 6 | # of national level guidelines, manuals, and tools in which REC-QI concepts are incorporated (IP custom) | This refers to documents/manuals e.g. Immunization in Practice and operational training materials in which REC-QI concepts are incorporated.<br><br>*This is a measure of institutional/technical capacity* | UNEPI Quarterly Update | Annually | 1 | - | 1<br>(IIP manual was finalised, printed and distributed to MCSP districts) | TBD |
| 7 | # of people trained in child health and nutrition through USG-supported programs (IP custom) | Number of people (health professionals, primary health care workers, community health workers, volunteers, and non-health personnel) trained in child health care and child nutrition through USG-supported programs during the reporting year. | Project reports | Annually | *316 (MCSP districts only: Kanungu and Butaleja)* | *Overall: 8,711*<br><br>*REC-QI tools training: 307*<br>*VHT training: 8,117*<br>*Planning for REC-QI Implementation* | **Overall: 3,089<br><br>PYI districts: 81<br>PY2 districts: 254<br>PY3 districts: 2,754<br><br>Trainings included: OPL trainings, VHT trainings, REC-QI select tools training, and Planning for REC-QI implementation. | *Total:* 1,104<br><br>*National Level:80*<br><br>*District Level:* (VHT – 1,024) |

| INDICATOR | | DEFINITION AND DISAGGREGATORS | DATA SOURCE / COLLECTION METHOD | FREQUENCY OF DATA COLLECTION | PY1 RESULTS | PY2 RESULTS | PY3 RESULTS | PY4 TARGET |
|---|---|---|---|---|---|---|---|---|
| 8 | % MOH/UNEPI TWG coordination meetings held where RI was discussed (IP custom) | Numerator: Number of MOH/UNEPI TWG coordination meetings held with EPI technical partners where RI was discussed<br><br>Denominator: Number of planned MOH/UNEPI TWG coordination meetings | UNEPI Quarterly Update | Annually | 83% (10/12) | 92% ( 11/12) | 100% (12/12) | 92% (11/12) |
| **Objective 2: Improved district capacity to manage and coordinate the immunization program** | | | | | | | | |
| 9 | % of planned quarterly review/coordination meetings held where RI was discussed (IP custom) | Numerator: Number of quarterly review/coordination meetings held where RI was discussed<br><br>Denominator: Number of planned quarterly review/coordination meetings in a district per year | District monitoring assessment | Annually | ***20% (4/20)***<br><br>*(MCSP districts only: Kanungu and Butaleja)* | ***PY1 Districts: 40% (8/20)***<br>-Kanungu: 50% (6/12)<br>Butaleja: 25% (2/8)<br><br>***PY2 Districts*** (baseline): (3%) 1/40<br>Ntungamo: (6%) 1/16<br>Mitooma: 0/8<br>Kibuku: 0/8<br>Bulambuli: 0/8 | **PY1 districts:** 83% (5/6)<br>Kanungu – 100% (3/3)<br>Butaleja – 67% (2/3)<br><br>**PY2 districts**: 81% (17/21)<br>Ntungamo – 89% (8/9)<br>Mitooma – 75% (3/4)<br>Kibuku – 75% (3/4)<br>Bulambuli – 100% (4/4)<br><br>**PY3 districts**: 53% (10/19)<br>Mbarara – 80% (4/5)<br>Bushenyi – 20% (1/5)<br>Pallisa – 33% (1/3)<br>Mayuge – 67% (4/6) | 60% |

| INDICATOR | | DEFINITION AND DISAGGREGATORS | DATA SOURCE / COLLECTION METHOD | FREQUENCY OF DATA COLLECTION | PY1 RESULTS | PY2 RESULTS | PY3 RESULTS | PY4 TARGET |
|---|---|---|---|---|---|---|---|---|
| 10 | % of planned integrated SS conducted (IP custom) | Numerator: Number of SS conducted by the DHT & HSD (total) in a year<br><br>Denominator: Number of SS planned by the DHT and the HSD (total) in a year | District and HSD assessment form | Annually | ***30% (6/20)***<br><br>*(MCSP districts only: Kanungu and Butaleja)* | ***PY1 Districts: 20% (4/20)***<br>*Kanungu: 3/12*<br>*Butaleja: 1/8*<br><br>***PY2 Districts*** (baseline): (18%) 7/40<br>Ntungamo: 3/16<br>Mitooma: 1/8<br>Kibuku: 2/8<br>Bulambuli: 1/8 | **PY1 districts**: 100% (6/6)<br>Kanungu – 100% (3/3)<br>Butaleja – 100% (3/3) (4/4)<br><br>**PY2 districts: 94% (15/16)**<br>Ntungamo – 75% (3/5)<br>Mitooma – 100% (4/4)<br>Kibuku – 100% (4/4)<br>Bulambuli – 100%<br><br>**PY3 districts**: 63% (10/16)<br>Mbarara – 50% (2/4)<br>Bushenyi – 75% (3/4)<br>Pallisa – 75% (3/4)<br>Mayuge – 50% (2/4) | 80% |
| 11 | % of health facilities with complete REC micro-plans (IP custom) | A REC micro-plan is a set of planning and management tools for RI as recommended by the MOH/UNEPI. Completeness of the micro-plan means that the plan contains all the required information for | Health facility assessment form | Annually | 6%<br><br>(4/66) | ***PY1 Districts: 70% (52/74)***<br>- Kanungu: 62% (31/50)<br>- Butaleja: 88% (21/24) | **PY1 districts**: 56%<br>Kanungu – 59% (29/49)<br>Butaleja – 52% (13/25)<br>Data collected April 2017. | 44% |

| INDICATOR | | DEFINITION AND DISAGGREGATORS | DATA SOURCE / COLLECTION METHOD | FREQUENCY OF DATA COLLECTION | PY1 RESULTS | PY2 RESULTS | PY3 RESULTS | PY4 TARGET |
|---|---|---|---|---|---|---|---|---|
| | | the current financial year and is all up to date up to the most recent completed quarter.<br><br><u>Numerator</u>: HF with completed REC micro-plans<br><br><u>Denominator</u>: All HF assessed in a district, selected using random sampling | | | (MCSP districts only: Kanungu and Butaleja) | ***<u>PY2 Districts</u>*** *(baseline): 21% (21/99)*<br>*- Ntungamo: 46% (19/41)*<br>*- Mitooma: 0% (0/24)*<br>*- Kibuku: 0% (0/16)*<br>*- Bulambuli: 11%*(2/18) | **<u>PY2 districts</u>**: 63% (65/103)<br>Ntungamo – 67% (28/42)Mitooma – 83% (20/24)<br>Kibuku – 31% (5/16)<br>Bulambuli – 63% (12/21) | |
| | | | | | | | **<u>PY3 districts: 75% (135/181)</u>**<br>Mbarara – 94% (59/63)<br>Bushenyi – 72% (26/36)<br>Pallisa – 50% (17/34)<br>Mayuge – 69% (33/48) | |

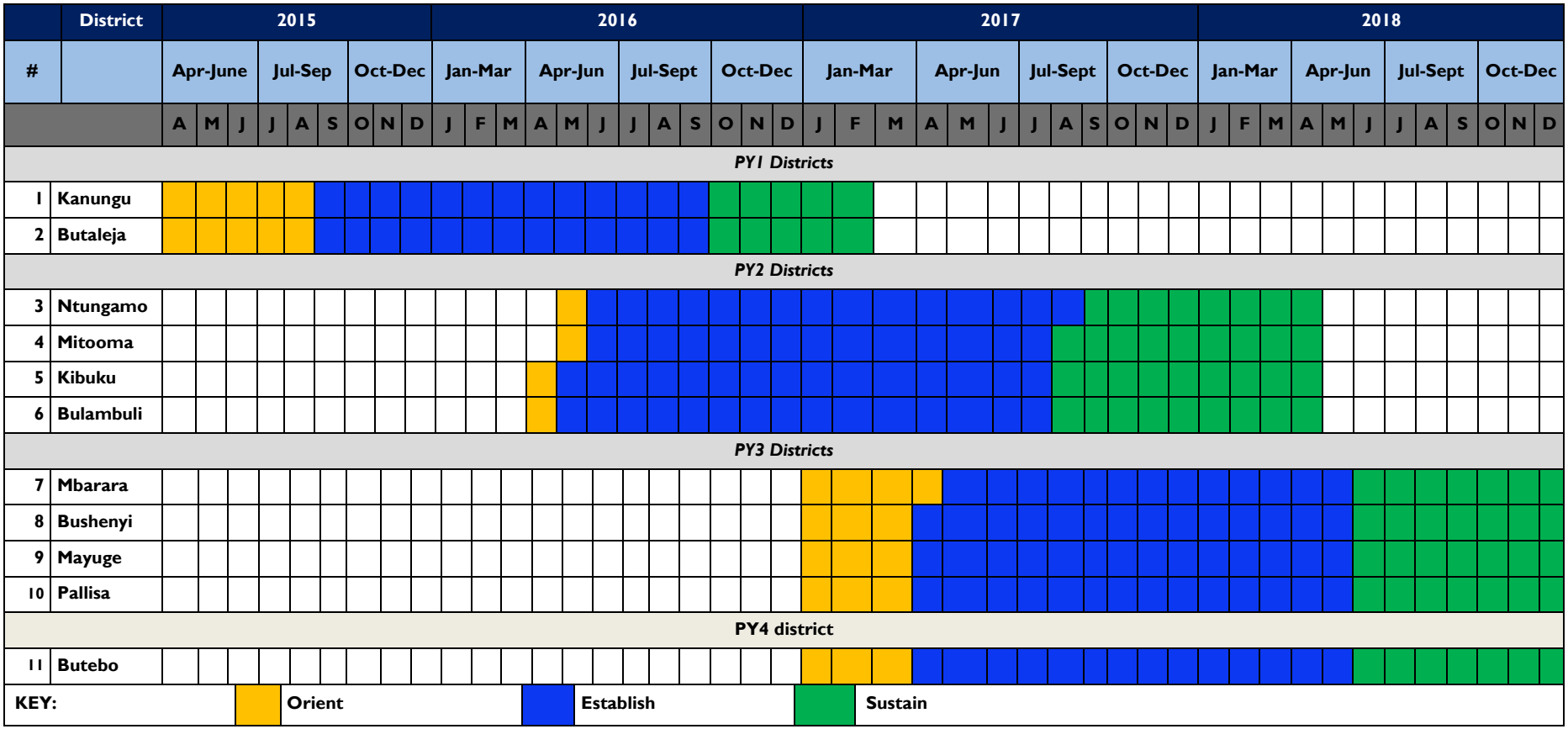
* Data was downloaded on 17th October 2017. Mitooma, will investigate our data on stock outs and reasons for not conduction sessions. The DPT 1-3 dropout rate is 22% for FY 2016/2017.

**The training figures are mainly determined by VHT trainings, last year VHTs were trained in four PY2 districts while this year trainings were conducted in Mbarara 1,293 and Bushenyi 509. The VHTs in Pallisa and Mayuge will be trained in Q1 PY4.

# Annex 2: SHORT TERM TECHNICAL ASSISTANCE (STTA) & INTERNATIONAL TRAVEL PLAN

| Who | What | When | Duration of Trip |
|---|---|---|---|
| **External Technical Assistance** | | | |
| **Rebecca Fields and Abdelmalik Hashim, Senior Technical Advisors** | Provide technical assistance to the team for RI strengthening, new vaccine introduction activities, and immunization technical coordination with partners; provide technical guidance for REC-QI learning activities; and participate in annual program review and planning, periodic DHOs meetings, and the EOP Meeting. | PY4 Q1 (completed)<br>PY4 Q3 (completed)<br>PY4 Q4<br>PY5 Q1 | 2 weeks each |
| **Victoria Rossi Lada, Senior Program Officer** | Provide program management and operational support to the country team, including technical assistance for program documentation and dissemination, and operational support for program closeout. | PY5 Q1 | 2 weeks (cost shared with CH) |
| **Disha Ali Measurement, Monitoring, Evaluation, and Learning (MMEL) Advisor** | Provide MMEL technical support for scale up documentation and to review and strengthen routine M&E activities, including data collection and analysis of learning activity data; and participate in annual program review and planning. | PY4 Q3 (completed) | 2 weeks |
| **Kate Onyejekwe, Country Support Manager** | Meet with donor, MOH, and other partners to review global program activities. Provide senior management and technical support to country team, and support closeout planning. Provide continued strategic communications support for capturing donor-required reports. | PY4 Q3 (completed) | 1 week |
| **Kadi Diallo, Program Coordinator** | Provide financial, administrative and operational support for program closeout. | PY5 Q1 | 2 weeks (cost shared with CH) |
| **Country Program Staff Travel** | | | |
| **COP** | Participate in WHO Eastern and Southern Africa EPI Manager's Meeting in Kigali, Rwanda. | PY4 Q2 (completed) | 1 week |
| **COP or National Technical Director** | Participate in regional/global meeting related to immunization/REC-QI. | PY4 Q3-Q4 | 1 week |

## Annex 3: REC-QI PHASED IMPLEMENTATION



# Annex 4: CORE-FUNDED ACTIVITY DESCRIPTION (I)

**PROCESS INDICATORS FOR ROUTINE IMMUNIZATION SYSTEM DATA**

**Background**

The Global Vaccine Action Plan (GVAP) objectives call for achieving coverage levels of 90% DPT3 at the national level and 80% in every district by 2020. However, it will not be possible to reach these levels without having real-time information for immunization managers to use to improve their programs. Immunization programs have a long history of tracking coverage of vaccinations, either through immunization coverage data generated by routine Health Management Information Systems (HMIS) or District Vaccine Data Management Tools (DVDMT) information, or through periodic household vaccination coverage surveys. While immunization coverage rates are essential for assessing levels of population protection from vaccine-preventable diseases and give broad information on the level of performance of the immunization system, they also have limitations. Obtaining precise real-time information on coverage rates is not possible through most routine information systems. One problem is that reported rates of coverage are affected by the quality of data, which often fluctuates over time. Furthermore, routine immunization (RI) coverage rates can be rapidly increased by conducting a catch-up campaign that provides only temporary improvements through bypassing, rather than strengthening, the RI system.

Another problem is that it is not uncommon to see high coverage levels, reported from routine information systems, which do not seem plausible given low levels of inputs and processes needed for the system to achieve high coverage. For example, if a health facility has high levels of vaccine stock-outs, provides immunization on an infrequent or unreliable basis, and does not have capable staff, it is unlikely that they can achieve high coverage that succeeds in protecting children from disease. However, immunization program managers mostly classify performance based on reported coverage without taking into consideration the inconsistencies with other routinely collected information. Through this learning question we want to explore ways of increasing the use of readily available process indicators on the routine immunization system and quality of services by immunization program managers, particularly at subnational level, in order to promote specific corrective actions when needed.

More robust measurements of coverage can be obtained through periodic surveys, which frequently show rates that are much lower than what is reported through routine immunization information. While this information is useful, the long lag times between surveys do not provide real-time information that enables rapid course corrections. Also, they do not explain specific details about how the RI system is functioning, including service quality, thus not providing managers with specific details of what part of RI needs improvement and what part does not.

Another complicating issue with surveys is that the vaccine schedule has been greatly expanded to include many more antigens. Previously, during surveys vaccination status of a child was obtained through verification of the child's vaccination card or by mother's recall. Because of the addition of

many new vaccines, it is hard for the mother to accurately recall which vaccine the child received. At the same time many children do not have vaccination cards, so only depending on vaccination cards does not give precise coverage information. WHO has proposed a new method of combining surveys and review of health facility records to get a better understanding of actual vaccination coverage. This proposed process is time-consuming, complex, and expensive, so cannot be carried out frequently, thus providing an additional reason to have a set of process indicators that can be used to see how the routine immunization system is functioning in real-time.

This problem of earlier identification of routine immunization performance is of worldwide concern in the immunization community. It is important to provide immunization managers with a set of process indicators that can be used to detect and understand problems in RI. These indicators will help managers look beyond reported coverage levels to gain an understanding of RI performance and to understand that, even when high coverage is reported through HMIS, the system may not actually be functioning well enough to reach all the children who should be reached or to reach them with high quality services. In cases where these process indicators have values that are inconsistent with reported coverage levels, managers need to take action to improve the system regardless of reported coverage levels. These process indicators will help counter the heavy reliance on only using coverage data to judge how RI is functioning.

This learning question focuses on decision-making at district and health facility levels. As a first step in answering this learning question, MCSP reviewed process indicators that are already collected by MCSP priority countries as well as additional process indictors proposed by WHO, Gavi, and UNICEF. We then generated a short list of common process indicators that have the potential assist district and facility staff in monitoring and identifying routine immunization system problems and strengths. MCSP will use this list as a starting point for testing in countries. The testing process will include dialog with global partners and local counterparts to determine the most important process indicators to be included, which may result in different sets being tested across the countries.

MCSP Immunization technical staff have been working with WHO, Gavi, and UNICEF regarding identifying a set of process indicators. Specifically, our team works closely with the Global WHO, Gavi Immunization Monitoring and Evaluation working group and WHO African Regional working groups. As findings emerge during the process we will continue to engage WHO, Gavi and UNICEF on the results; thus adding to the worldwide conversation about appropriate process indicators.

These indicators sets will be used in activities that are already part of MCSP's RI system strengthening work. For example, in Uganda, the REC-QI process includes identifying a problem in the routine immunization system at the facility level, performing a root cause analysis to identify actionable steps that can be put in place to solve the problem, and setting up a plan-do-study-act (PDSA) cycle to track the process. The set of process indicators we plan on testing would be compatible with the ongoing work on PDSAs. In Uganda quality work improvement teams hold regular meetings at the facility level to identify immunization problems and solve them through PDSA cycles. In addition, at the district level quarterly review meetings are held where the situation of the RI system is discussed. Including this set

of process indicators would facilitate the discussions. Most country immunization programs include regular (monthly, quarterly) review meetings at facility and district (or equivalent administrative structure) where routine immunization is discussed. Again, the set of process indicators would greatly facilitate the discussion and provide better information for identifying problems that can be solved.

**Objectives**

The objective is to identify a set of process indicators that can be used to measure the performance of RI systems and to develop mechanisms that facilitate their use for decision-making by district and health facility level staff. The set will be comprised of indicators that are already routinely collected or indicators that could easily be added to routine data collection. The feasibility, acceptability and usability are also being studied to give a better sense of the enablers that would enhance use.

**Approach and Deliverables**

MCSP worked with country staff to identify 10 process indicators that countries commonly monitor, and then selected Nigeria, Malawi, and Uganda as focal countries for this learning question, as they already report most of these indicators. Staff then monitored the indicators in MCSP-supported districts/states, and complemented the quantitative data with qualitative data collection. In the first of two rounds of qualitative data collection (April-September 2017), MCSP conducted interviews with 70 primarily facility-based health staff. The interviews focused on data validation; exploring the process indicators' usefulness, feasibility, acceptability, and accuracy; and understanding how the indicators were used for decision-making. The second round of data collection is now ongoing. Between rounds, MCSP revised the data collection tools to address questions raised during the first round of data collection. An upcoming webinar will promote cross-learning between up to eight MCSP immunization focal countries.

**Selection of Uganda**

Along with Nigeria and Malawi, Uganda was selected for this learning activity because it was already reporting nine of the ten process indicators selected for examination. For the first round of data collection, which was completed in PY3, MCSP conducted interviews concurrently with regularly scheduled supportive supervisions and other trips to the field, so no additional funding was necessary. For this round, MCSP determined that some additional core funding would be necessary for quality data collection.

**Funding and Logistics**

The activity in Uganda will support a second round of qualitative interviews with revised tools, in the following districts: Mbarara, Bushenyi, Pallisa and Mayuge. This activity will be supported by 2 MCSP MMEL staff and 4 MCSP data collectors (preferably MCSP district technical officers). Each data collector will be assigned a specific district and will visit 5 health facilities in each district to collect the data, with support from the MCSP staff. Data gathered from this round of collection will feed back into the ongoing

global learning question on process indicators and shared across countries and globally in discussions around routine immunization data. We estimate this activity will require approximately $3,115.

This learning activity will be funded entirely with MCSP core immunization MCH funds. It received a non-human subjects research determination from the Jhpiego IRB in the US.

# Annex 5: CORE-FUNDED ACTIVITY DESCRIPTION (II)

**SIX-DOSE TETANUS VACCINATION SCHEDULE**

**Background**

In 2011, WHO and UNICEF certified that Uganda had achieved the major milestone of eliminating MNT. Despite this, there have still been reported cases of MNT since 2012. Additionally, Uganda has highest number of cases of non-neonatal tetanus in the WHO/AFRO region, with 2,522 cases from 2003-2014. The trajectory of cases is on the rise, with high numbers of cases among females five years of age and older. Even with good intensive care, case fatality rates have remained very high in the range of 40-70%[2].

In 2016, the MOH formally requested the UNITAG to conduct an in-depth evaluation of several possible options for new vaccine introductions and disease control measures, including tetanus, measles/measles-rubella, meningitis A, and hepatitis B (birth dose). UNITAG organized in-depth reviews of each topic and then applied internationally-recommended methods to compare the advantages of each option in order to systematically identify the priorities for Uganda. Using two alternative methods, the highest-ranked option was to introduce Td vaccine to replace TT and introduce the six-dose tetanus vaccination schedule recommended by SAGE in 2017[3]. This new WHO schedule calls for three doses of TT-containing vaccine given in infancy (as part of pentavalent vaccine) and three booster doses to be given to both girls and boys at 12-23 months of age, four to seven years of age, and 9-15 years of age with intervals of four years between booster doses.

In September 2017, UNITAG forwarded its official recommendations[4] to the MOH and UNEPI for action. The Government of Uganda has now ceased procurement of TT and begun purchasing Td using its own funds. Uganda's cMYP for immunization has been updated to reflect the change in tetanus vaccine and vaccination schedule. UNEPI is developing a policy brief for Td booster doses and is embarking on developing a detailed implementation roadmap.

The six-dose tetanus schedule presents some important operational challenges. It requires that two relatively novel platforms for service delivery - during the second year of life and school-age years - be established and made fully functional. Experience in Uganda from HPV introduction shows that strong coordination across the Ministries of Health and of Education and Sports is essential to support school-age vaccination while experience from other countries (mostly with measles second dose introduction) has clearly shown the challenges of achieving high vaccination coverage levels in children aged 12-23

[2] Zziwa B. Godfrey. 2009. Review of tetanus admissions to a rural Ugandan hospital. Health Policy and Development. 7(3) 199-202.

[3] WHO position paper on tetanus, February 2017. Available at: http://apps.who.int/iris/bitstream/handle/10665/254582/WER9206.pdf;jsessionid=FD54554C15460C44CEAA27EE1DBFB84A?sequence=1

[4] Prioritisation of vaccine introduction in the UNEPI: Report of Uganda National Immunisation Technical Advisory Group (UNITAG) to Ministry of Health - September 2017, Uganda National Academy of Sciences

months. Issues of data recording, reporting, and analysis; clear and accurate communication; clarification of roles and responsibilities among health and education personnel; and cold chain/logistics management have emerged as needing particular attention and thorough budgeting and adequate financing. These issues and others that are unique to the six-dose tetanus schedule, such as identifying the appropriate vaccine product for the booster dose in the second year of life and the implications of the six-dose schedule for antenatal care, will need to be proactively addressed in planning.

**Proposed support from MCSP**

MCSP will support UNEPI in developing the implementation road map for the six-dose tetanus schedule.

Senior Technical Advisor for Immunization Robert Steinglass, a well-known expert in MNT and RI strengthening, will work with UNEPI, other officials from the MOH and Ministry of Education and Sport, MOH officials, and representatives from key immunization partners to identify the full range of issues that need to be addressed and practical means for doing so.

**Timeframe (July 1-December 31, 2018)**

MCSP proposes to send Steinglass to Uganda July 2-6, 2018 to work with UNEPI and meet with immunization partners and other key officials on the work described above.

During the following two-three months, Steinglass will provide additional support to UNEPI from Washington on an as-needed basis.

**Expected outcome/deliverables**:

1. The key outcome will be the MOH/UNEPI implementation roadmap that provides guidance for roll-out and reflects and addresses most challenges in introducing Td and the six-dose tetanus schedule through concrete activities, timeline, responsibilities, and budget.
2. While aiming for the completion of the implementation roadmap by December 2018, we recognize that the horizon for producing and revising it may extend beyond MCSP's presence in Uganda. Therefore, MCSP will, in addition, prepare a separate report that outlines these key points, proposes appropriate actions, and identifies additional information needs and provide this reference to UNEPI for their continued use.
3. In preparation for an upcoming regional meeting that WHO/AFRO proposes to conduct in late 2018 on Td and the six-dose tetanus schedule, MCSP will prepare a presentation to share key points and learning from Uganda that have wider applicability to other countries considering the introduction of this new six dose tetanus schedule. (Work on this presentation will be supported by other MCSP Core funds.)