MCHIP Country Brief: Uganda

Selected Health and Demographic Data for Uganda	
Maternal mortality ratio (deaths/100,000 live births)	430
Neonatal mortality rate (deaths/1,000 live births)	27
Under-5 mortality rate (deaths/1,000 live births)	90
Infant mortality rate (deaths/1,000 live births)	54
Contraceptive prevalence rate	30
Total fertility rate	6.2
Skilled birth attendant coverage	42.6%
Antenatal care,4+ visits	47.2%
Sources: Uganda DHS 2011; *WHO/UNICEF estimates, 2012; **MOH administrative reports, 2012.	

Health Area:

- Immunization

Program Dates	June 2012–June 2014				
Total Mission Funding	Redacted [redacted]				
Total Core Funding					
Geographic Coverage	No. (%) of provinces/ regions	3%	No. of districts	5	No. of facilities	310
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INTRODUCTION

Despite improvements to Uganda's health system in recent years, reports such as the Expanded Program on Immunization (EPI) reviews and coverage survey data from the 2011 Demographic and Health Survey (DHS) identify stagnation in Uganda's routine immunization (RI) portfolio. Between 2010 and 2013, Uganda faced outbreaks of yellow fever, measles, polio, and hepatitis B—events that highlighted the need for additional technical and financial investment in and political support for RI. Inconsistent progress in RI over the past eight years is attributable in part to persistent, systems-based problems within the country's operational components related to management, immunization, and surveillance.

The United States Agency for International Development (USAID) has a long history of supporting Uganda's immunization programs. More recently, projects with a key focus on RI have included: BASICS II (1999–2004), which focused on strengthening health worker interactions and partnerships with communities as part of immunization—a precursor to the Reaching Every District (RED) approach; UPHOLD bilateral (2003–2007); and Africa Routine Immunization System Essentials (ARISE-2011–2012), exploring quality improvement in RI in Masaka district.

The Maternal and Child Health Integrated Program (MCHIP), USAID's flagship maternal and child health global program, was asked by USAID Uganda to lead the 2010 EPI review. Based on the findings of the review, which identified persistent systems-based problems within the country's operational components of immunization and surveillance, USAID Uganda provided funding from June 2012 to June 2014 to implement a program to strengthen RI. Each of these programs worked closely with the Ministry of Health (MOH) and the Uganda National Expanded Programme on Immunization (UNEPI) to strengthen and expand routine immunization services.

UNEPI and program partners focused implementation efforts on using the RED[1] strategy, developed by UNICEF and the World Health Organization (WHO) with support from BASICS II technical experts. This strategy supports greater "links between community and service—regular meetings between community and health staff" and states that "immunisation services need to integrate better into community structures in an environment of consultation between the community and health managers."[2]

The RED strategy comprises five key components: planning and management of resources, community linkages, revitalized outreach, supportive supervision, and active monitoring. The MCHIP program built upon these components and included additional focus on capacity building, strengthening community linkages and ownership, and monitoring and supervision. MCHIP also took lessons from the Community Problem Solving and Strategy Development Approach (CPSSD), which was used successfully in Uganda and elsewhere by BASICS/USAID in the early 2000s, and the ARISE project completed in Masaka district in mid-2012. The work done in Masaka formed the foundation for the conceptualization of the MCHIP program, which emphasized operationalizing Uganda's national RED program (or Reaching Every Community, REC)—which is designed to increase vaccination coverage and improve health service delivery—with strengthening elements of quality improvement (QI) and Plan-Do-Study-Act (PDSA) performance improvement cycles.

The approach hereafter referred to as "REC-QI," addresses high-priority problems by identifying their root causes and introducing small, rapid, doable changes that can be quickly

[1] For more information on REC/RED, see "Implementing the Reaching Every District Approach" guide at http://www.who.int/immunization_delivery/systems_policy/AFRO-RED_Aug2008.pdf.
[2] Increasing Immunisation Coverage in Uganda, The Community Problem Solving and Strategy Development Approach; BASICS II, November 2003. Accessed online at http://pdf.usaid.gov/pdf_docs/Pnacw611.pdf.

tested and vetted for adoption, adaptation, or abandonment at local level. The REC-QI approach also expands on Uganda's basic REC guidelines to provide more in-depth steps for District Health Teams (DHTs)—particularly to empower district and management teams to better understand the details of operationalizing REC (e.g., going beyond REC general guidance to map all catchment areas, providing practical and detailed steps to identify catchment areas and population with macro/micro mapping guidance). Overall, the REC-QI methodology promotes a learning environment and provides DHTs and health workers with user-friendly tools to better understand root causes of the symptoms impacting routine immunization in their communities.

During the MCHIP Uganda program, MCHIP worked closely with USAID/Uganda, UNEPI, MOH officials, National Medical Stores, WHO, UNICEF, and Sabin's Sustainable Immunization Financing project at the national level and in five selected USAID-focus districts: Iganga in Jinja Region, Busia and Kapchorwa in the Eastern/Mbale Region, and Kabale and Rukungiri in the Southwestern Region. MCHIP Uganda's two main objectives were to:

- Improve the capacity of UNEPI to plan, manage, implement, monitor, and coordinate support for RI at the national level; and
- Strengthen the capacity of the DHT to manage and coordinate support for immunization in these selected USAID focus districts: Busia, Iganga, Kabaale, Kapchorwa, and Rukungiri.

MAIN MCHIP INTERVENTIONS TO IMPROVE ROUTINE IMMUNIZATION THROUGH REC-QI	
Macro/micro mapping	Mapping catchment and service areas to improve accountability, active use of data for decision-making, and coverage.
PDSA cycles	Using team problem-solving techniques for quality improvement in order to reach every child in each of the five districts targeted with routine immunization—by breaking larger problems into smaller, doable parts.
Cold chain improvement	Using PDSA cycles to implement a gas cylinder inventory, tracking, and purchasing system. Now all gas cold chain refrigerators have a back-up system to ensure that vaccines are kept between 2° and 8° Celsius.
Supportive supervision	Strengthening regular and supportive visits to all health facilities s in a district, and combining QI coaching concepts into mentoring of QI teams during supportive supervision.
Quarterly review meetings	Regularly engaging partners and districts to evaluate progress; combining QI learning session concepts into quarterly meetings as part of expanding and institutionalizing a peer learning/sharing environment.

KEY ACHIEVEMENTS

MCHIP Uganda was an immunization-only funded program that worked closely with UNEPI and program partners during the implementation period. Following are key achievements:

- Operationalized RED/REC with QI approaches.
- As a focus area of REC-QI, strengthened capacity development: improved supportive supervision, built skills of mentors, trained on basic EPI as well as continuous quality improvement methodologies. All of these achievements enabled the districts to use their data to identify problems (poor access or utilization), identify areas with under-immunized children, and work together (district, health sub-district, and community) to identify solutions and develop implementation plans (PDSA).
- Supported New and Underused Vaccines Implementation (NUVI): supported successful PCV 10 introduction in five MCHIP focus districts as part of the national effort to introduce PCV10 countrywide. The PCV10 introduction training covered the whole range of national strategies for pneumonia prevention and treatment as described in the Global Action Plan for Prevention and Control of Pneumonia (Protect, Prevent and Treat).

At the national level, key MCHIP accomplishments include:

- Provided ongoing technical support to UNEPI via participation in: a comprehensive multi-year plan for immunization (cMYP) update; ongoing monthly EPI technical meetings; finalization of EPI draft policy; district planning meetings (led by Strengthening Decentralization for Sustainability (SDS)/USAID); WHO South East EPI Managers' meeting in Harare (2013 and 2014), to ensure RI strengthening was incorporated as a priority.
- Supported the development and follow-up of UNEPI's revitalization plan 2012–2014, which included a renewed focus on reducing inequities in coverage.
- Supported UNEPI to conduct and follow up after a national Data Quality Self-Assessment to address persistent data quality challenges.
- Worked with UNEPI and the MOH Resource Center in revitalizing a regular review of all-district immunization data, published quarterly in *New Vision*, one of Uganda's newspapers with national distribution.
- Supported UNEPI in finalizing its national EPI immunization policy, currently sitting with the Cabinet for approval.
- Supported the MOH, UNEPI, and Ministry of Education in updating its in-service Continuing Medical Education EPI curriculum for nurses, midwives, and doctors (ongoing).
- Supported training of 11,115 (F 6,583 and M 4,532) Village Health Teams (VHTs) in the five supported districts on EPI (EPI vaccines, Vaccine Preventable Disease [VPD], RI schedule, mobilization for RI, use of child register and child health cards to guide parents/guardians on the remaining doses). VHTs are representatives of the community—linking services with the community.
- Supported the training of national-level Training of Trainers in EPI, REC, QI, and supportive supervision.
- Provided technical support to UNEPI and partners such as WHO and UNICEF in introduction of pneumococcal vaccine (PCV-10) at the central level and in three regions and served as a member of PCV National Coordination Committee training as well as surveillance sub-committees. The training included national strategies for pneumonia prevention and treatment as described in the Global Action Plan for Prevention and Control of Pneumonia (Protect, Prevent and Treat).
- Introduced a methodology to boost REC for RI with a quality improvement focus (REC-QI) in five districts, 310 health facilities, and 706 (F 368 and M 338) health workers.

At district level, key accomplishments include:

- Worked with five DHTs in conducting a baseline assessment to identify programmatic issues and assets to assist with further development of REC-QI.
- Assisted DHTs in setting up a continuous and systematic macro mapping of all health facilities so as to avoid duplication of service areas.

- Activated the RED immunization strategy and categorization tool whereby all health facilities key immunization data are tracked, compared, and shared on a quarterly basis to analyze problems of access and utilization.
- Operationalized a focused approach to REC with QI strengthening elements (REC-QI approach).
- Supported two cross-district knowledge sharing and learning initiatives as well as cross-country learning between Uganda and Ethiopia, both implementing the REC-QI approach.
- Trained 1,034 (F 683 and M 351) operational-level health workers in EPI.
- Supported 25 review meetings (15 in 2013 and 10 in 2014), including use of data and feedback of data to lower levels and sub-county administrative leadership (non-traditional leaders).
- Trained 706 (F 368 and M 338) health workers and facilitated initiation of a REC-QI methodology to sustainably and affordably strengthen RI.

WAY FORWARD

Following is a summary of recommendations and lessons learned from this two-year project:

- To institutionalize REC-QI in medium-to-weak district health systems in Uganda, approximately 20 months of technical support is needed.
- Scale up the "lightened" REC-QI implementation approach to more districts in Uganda and to other countries.
- Ensure that local context is taken into consideration when introducing REC-QI and throughout implementation.
- Build an environment that supports the DHTs and their management to feel ownership of the REC-QI process.
- Use PDSA cycles to improve how districts forecast and quantify their own vaccine needs.
- Use macro and micro mapping as a key tool when implementing REC-QI.
- Support health sub-districts and health facilities to solve their own problems associated with RI at the district level; if problems persist, advocate with district-level administrative leaders to help foster solution-seeking.
- Use the basic REC-QI components to assess and adapt management changes as well as improve service delivery problems.
- Consider using REC-QI elements to strengthen other health interventions, not only RI but also PHC interventions.
- Build on-the-job supportive supervision into REC-QI programs as it will build staff capacity, and provide an enabling environment for staff to raise and solve issues.
- Develop the expanded "How to Guide" using the technical steps developed by MCHIP under this program to support scale-up in Uganda and in other countries in future programs.