# **MCHIP Country Brief: Tanzania**



Selected Health and Demographic Data for Tanzania					
Maternal mortality ratio (deaths/100,000 live births) <sup>2</sup>	450				
Neonatal mortality rate (deaths/1,000 live births) <sup>2</sup>	21				
Under-five mortality (deaths/1,000 live births) <sup>2</sup>	54				
Infant mortality rate (deaths/1,000 live births) <sup>2</sup>	38				
Modern contraceptive prevalence rate <sup>2</sup>	34				
Total fertility rate <sup>2</sup>	5.3				
Skilled birth attendant coverage <sup>2</sup>	49%				
Antenatal care, 4+ visits <sup>2</sup>	43%				
Sources: 1 World Bank; 2 UNICEF Statistics 2012					



## Health Areas:

- HIV/AIDS
- Immunization

<b>Program Dates</b>	VMMC: September 30, 2008–September 29, 2014 Immunization: December 2011–June 2014 Redacted						
Total Mission Funding							
Geographic Coverage (VMMC)	No. (%) of regions	8.3%	No. of districts	15/169	No. of facilities	347	
Geographic Coverage (Immunization)	No. (%) of regions	8.3%	No. of districts	11/169	No. of facilities	327	
Country and HQ Contacts	VMMC: Hally Mahler, HIV Director, Natalie Hendler, Senior Program Officer, Brenda Rakama, Alice Christensen, Tigistu Adamu, and Kelly Curran  Immunization: Dr. Caroline Akim, National Immunization Technical Advisor, Lora Shimp, Senior Immunization Technical Officer, Asnakew Tsega, Immunization Technical Officer, Kelli Cappelier, Senior Program Officer, Kerry Ann Dobies, Program Coordinator						

## **VOLUNTARY MEDICAL MALE CIRCUMCISION (VMMC)**

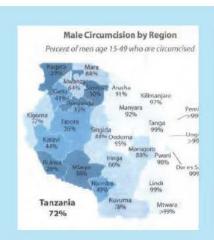
## INTRODUCTION

In March 2007, the World Health Organization (WHO) and Joint United Nations Programme on HIV/AIDS (UNAIDS) issued guidance urging countries in eastern and southern Africa with high HIV prevalence and low male circumcision MC rates to incorporate voluntary medical male circumcision (VMMC) into their HIV prevention programs as part of a comprehensive package that includes abstinence, partner reduction, condom promotion, HIV counseling and testing, and sexually transmitted infection (STI) treatment.

Following the WHO recommendation, Tanzania convened its first Male Circumcision Technical Working Group (MCTWG) in 2007. The MCTWG recommended the implementation of two national situation assessments, one in circumcising communities and another in non-circumcising communities, and proposed the implementation of a VMMC pilot. In 2009 USAID asked the Maternal Child Health Integrated Program (MCHIP) to collaborate with the Ministry of Health and Social Welfare (MOHSW) to pilot VMMC in Tanzania. In September 2009, the country's first VMMC site opened at Iringa Regional Hospital. The scope and field support funding level for VMMC have grown steadily, and during the past five years the MCHIP Tanzania VMMC program has been lauded as one of the highest quality and most efficient and innovative programs in the region. With the support of the MOHSW, VMMC services have been established in three priority regions (Iringa, Njombe, and Tabora) and delivered as routine services at fixed sites and in outreach and mobile settings through campaigns. As of March 2014, VMMC services had been provided in 347 unique health facilities across the three regions where a total of 323,650 clients were provided with services.

Each year moderately different MCHIP Tanzania program objectives were listed in the annual work plan. However, the objectives have remained largely the same each year. They are:

- Scale up male circumcision services in Iringa, Njombe, and Tabora regions
- 2. Pilot early infant male circumcision (EIMC) services in Iringa region
- 3. Develop and/or adapt key tools, curricula, and materials, as necessary
- 4. Collaborate with US Government (USG) VMMC partner agencies in Tanzania
- 5. Provide technical assistance to the Government of Tanzania health authorities
- 6. Collect and disseminate programmatic and research lessons learned within Tanzania and elsewhere



Statistics for Jhpiego Assigned Regions as of September 30, 2013

#### Iringa Region

- HIV Prevalence: 9.1%
- MC Prevalence 60%
- Number of VMMCs done by program: 127,634
- Target VMMCs remaining for next five years: 87,076

#### Njombe Region

- HIV Prevalence: 14.8%
- MC Prevalence: 49%
- Number of VMMCs done by program: 92,125
- Target VMMCs remaining for next five years: 74,333

#### **Tabora Region**

- HIV Prevalence: 5.1%
- MC Prevalence: 56%
- Number of VMMCs done by program: 103,891
- Target VMMCs remaining for next five years:

Sources 14 25 A HIV/AIDS and Malaria Indicator Survey 2011-12 and the 2014 National VMMC Country Operational Plan (draft)

In 2009 it was impossible to foresee that the Tanzania VMMC program would reach more than 1 million VMMCs by 2014. At the launch of the program, MCHIP was part of a multi-agency partnership to pilot VMMC services, in collaboration with the United States Department of Defense (DOD) partner, Walter Reed Medical Center (through Mbeya Referral Hospital); and the Centers for Disease Control and Prevention (CDC) partner, the International Center for AIDS Programs (ICAP). MCHIP led the development of monitoring and evaluation (M&E) and counseling tools. Jhpiego experts traveled to Tanzania to facilitate the national adaptation of the WHO/UNAIDS/Jhpiego Manual for Medical Male Circumcision Under Local Anesthesia (WHO/UNAIDS/Jhpiego 2009). In September 2009, the first VMMC clinician training was held at Iringa Regional Hospital for providers from all partners, and services were officially established in October 2009. Since that date, Iringa Regional Hospital has remained as a center of excellence for the VMMC program, and a large majority of trained VMMC providers in Tanzania were either trained there or trained by the Master Trainers who normally work there. In May 2010, the first VMMC campaign in Tanzania was held in Iringa region, providing evidence that there was high demand for services, and both high volume and high quality VMMC services were feasible. In early 2011, MCHIP opened an office in Njombe region to coordinate the expansion of the program there, and in 2012 MCHIP opened an office and initiated services in Tabora. Decentralization of the daily management of the VMMC program has facilitated the management and scale up of the growing program. It also facilitated the program's strategy of "bringing VMMC to the people," rather than expecting people to come to the VMMC service.

#### **KEY ACHIEVEMENTS**

During the first five years of implementation, the MCHIP VMMC program played a significant role in the further development and expansion of VMMC through technical support in training providers and counselors, development of tools for quality assurance, supervision and counseling, contributions to demand creation, commodity logistics, national and local level advocacy efforts, and institutionalization of the national VMMC M&E systems and tools.

With funding from USAID and research institutions, research has been conducted to determine the acceptability and safety of the PrePex device in Tanzania and the challenges of EIMC to ensure that Tanzania can develop policies and tools for an EIMC scale up. In 2013, MCHIP introduced Tanzania's first EIMC pilot project in the Iringa region. MCHIP VMMC interventions served as an "innovation lab" for Tanzania by constantly adapting the program based on implementation experience, M&E data, and research activities designed to hasten the speed and quality of the VMMC scale-up. This support was provided to partners and the National AIDS Control Program (NACP), and by MCHIP staff, to other countries, including South Africa, Namibia, Zambia, Lesotho, Kenya, Malawi, and Botswana. More than 60 people from donors and partners in other countries and health professionals from other regions of Tanzania visited the MCHIP program during study tours of Iringa and Njombe. As a result of this leadership, contributions to peer-reviewed publications, the development of case studies, and participation in various international conferences, MCHIP has played an important role in advancing the global VMMC agenda.

Regional prevalence data are consistent with the M&E data collected by the program. During the past five years, all three MCHIP regions have experienced declines in HIV prevalence and significant increases in MC prevalence, as noted above. Although these improvements cannot be attributed solely to the MCHIP VMMC program, the program may have played some role in the decline in HIV prevalence and likely accounts for the majority of improvements in VMMC prevalence.

Three randomized clinical trials have determined unequivocally that male circumcision reduces female-to-male HIV transmission by approximately 60 percent; post-trial surveillance data suggest that risk compensation has not been a problem in the clinical trial sites. Modeling

studies demonstrate that VMMC could prevent up to 5.7 million new HIV infections among men, women, and children over the next 20 years

In Tanzania, adult HIV and MC prevalence is 5.1 percent and 72 percent, respectively (Tanzania National HIV and Malaria Indicator Survey 2011/12). However, there is tremendous variability in both HIV and MC prevalence by region. The proportion of men aged 15–49 years who reported being circumcised in the most recent national survey ranged from a low of 28 percent in Rukwa region, to a high of more than 99 percent, in multiple regions along the Indian Ocean coastline (see Figure 1).

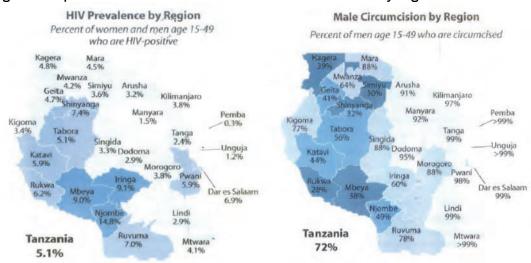


Figure 1. Maps of HIV Prevalence and Male Circumcision Prevalence by Region: 2011-12

Source: Tanzania HIV/AIDS and Malaria Indicator Survey 2011-12

As noted in Figure 2, when the program began in 2009, an HIV indicator survey showed that HIV prevalence was 15.7 percent in Iringa and Njombe (which used to be a single region called "Iringa") and 6.4 in Tabora in 2007/08. HIV prevalence rates have declined to 9.1 percent in Iringa, 14.8 percent in Njombe, and 5.1 percent in Tabora.

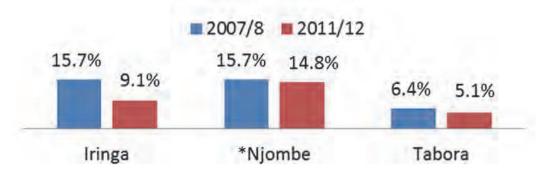


Figure 2. Prevalence of HIV in MCHIP MC regions: Iringa, Njombe, and Tabora, 2007/8 and 2011/12

Sources: Tanzania HIV/AIDS and Malaria Indicator Survey 2007–08: Tanzania Commission for AIDS (TACAIDS), Zanzibar AIDS Commission (ZAC), National Bureau of Statistics (NBS), Office of the Chief Government Statistician (OCGS), and Macro International Inc. 2008. *Tanzania HIV/AIDS and Malaria Indicator Survey 2007-08*. Dar es Salaam, Tanzania: TACAIDS, ZAC, NBS, OCGS, and Macro International Inc.

Tanzania HIV/AIDS and Malaria Indicator Survey 2011–12: Tanzania Commission for AIDS (TACAIDS), Zanzibar AIDS Commission (ZAC), National Bureau of Statistics (NBS), Office of the Chief Government Statistician (OCGS), and ICF International 2013. Tanzania HIV/AIDS and Malaria Indicator Survey 2011-12. Dar es Salaam, Tanzania: TACAIDS, ZAC, NBS, OCGS, and ICF International.

<sup>\*</sup>Njombe was part of Iringa region in 2007-8. Since disaggregated data do not exist for that time period, the same HIV prevalence has been cited for both regions. HIV prevalence pertains to all adults aged 15–49.

Prior to the program launch in 2009, MC prevalence was 29 percent among males aged 15–49 in Iringa and Njombe and 38 percent in Tabora. Subsequently, MC increased to 60 percent in Iringa, 49 percent in Njombe, and 56 percent in Tabora by 2011/12, as noted in the Tanzania HIV/AIDS Malaria Indicator Surveys. In addition, 200,000 VMMC were performed between 2011–12 and March 2014.

The National VMMC Strategy prioritizes VMMC for males aged 10–34 years, particularly in the 12 regions characterized by high HIV prevalence and low MC prevalence. Since 2009 323,650 VMMCs have been provided through 347 unique MCHIP-supported MOHSW sites. MCHIP has played a leadership role in Tanzania, working with the MOHSW, USG agencies, international partners, implementation partners, and local communities to bring high quality VMMC services to Iringa, Njombe, and Tabora Regions. MCHIP has demonstrated, both within Tanzania, and to other countries seeking to establish VMMC services, that it is possible to implement high-volume VMMC campaigns. Financial and human resources have been maximized through significant investments in community advocacy and mobilization, and the program has developed a model of balancing supply and demand, which has been replicated by other organizations.

#### **WAY FORWARD**

Throughout its operation, the program has faced challenges and found solutions, by reducing seasonality of demand, dispelling myths and misconceptions about VMMC, and efficiently managing human resources. The program has implemented research and analyzed program data to understand the ideal mix of services for older men, reasons why adverse event (AE) rates were dropping, and the potential barriers to the uptake of EIMC services. When solutions were not possible, the program advocated for change (e.g., USG-accepted age of VMMC clients). The MCHIP Tanzania VMMC program has embraced the use of technology to help enhance programmatic elements. For example, geographic information systems (GIS) identified gaps in the VMMC scale up and identified sites to ensure the success of VMMC campaigns. Text messaging increased accessibility to information on VMMC for clients and providers through Text to Change and *Tohara* Texts.

MCHIP improved the quality of VMMC services through refresher training for VMMC providers in Tanzania, training special AE ombudsmen to review AE rates and ensure accurate reporting, and incorporating robust supervision, mentoring, and quality assurance and external quality assurance systems.

MCHIP also provided significant technical assistance to the MOHSW. MCHIP led the process of reviewing and finalizing the national VMMC training curriculum and developed training curricula for VMMC counselors, refresher training, and peer promoters. From the outset of the program, MCHIP worked with the NACP's M&E Unit to develop, test, and finalize national VMMC M&E tools and assisted the MOHSW to incorporate VMMC into the national district health management system. MCHIP also provided the NACP with technical support for the development of VMMC costing and modeling.

By the end of five years, VMMC had progressively and rapidly expanded in MCHIP's implementation regions. As of mid-2014 more than one million VMMCs had been performed in the 12 priority regions. The new 2014 National VMMC Country Operational Plan estimates that there are an additional 2.1 million clients to serve in the 12 priority regions between 2014 and 2017; these men stand to gain the epidemiological benefits of VMMC and be part of an AIDS-free generation.

## **IMMUNIZATION**

## **INTRODUCTION**

In the mid-1990s, Tanzania's national immunization program was among the strongest in sub-Saharan Africa, with national routine immunization coverage estimated at approximately 80 percent.<sup>2</sup> However, coverage fluctuated thereafter following the health sector reforms of 1996 and the creation of the Sector Wide Approach (SWAp), which pooled and channeled government and donor funding to the districts for the first time. After 2001, when the country began receiving GAVI Alliance support, routine immunization coverage rose once again, from approximately 79 percent in 2000 to 94 percent in 2004. However, due to challenges ensuring dedicated funding for the Expanded Programme on Immunization's (EPI) recurrent operational costs, routine coverage by one year of age has not been sustained at the 2004 level.

The 2010 Tanzania Demographic and Health Survey (DHS) found that coverage (based on immunization card plus history) was still much lower by one year of age than is considered optimal. It also found that performance varied significantly by region, with Kigoma, Mbeya, Rukwa, Tabora, and Mara achieving less than 80 percent DTP-HepB-Hib coverage (in children 12 to 23 months of age). A formal EPI review conducted in July 2010 by the Ministry of Health Immunization and Vaccine Division (MOH/IVD) and its international partners identified a number of gaps in the immunization system that would have to be addressed to further improve and sustain coverage and guarantee the successful introduction of new vaccines.

In 2011, USAID/Tanzania requested technical assistance from MCHIP to address some of the persisting challenges for routine immunization to achieve optimal coverage, in addition to supporting the introduction of new lifesaving vaccines. Following an initial assessment, and several subsequent MCHIP technical visits, an agreement was made with the MOH/IVD, USAID/Tanzania, WHO, UNICEF, and the Canadian International Development Agency (CIDA) on a technical assistance and program support plan, including assistance through MCHIP. The first year of the MCHIP involvement in Tanzania (January 2012 to January 2013) focused on support to the successful simultaneous introduction of two new vaccines—pneumococcal conjugate vaccine (PCV) and rotavirus (RV) vaccines. Objectives 1 to 3 were developed at the inception of the project, with objectives 4 to 5 added in program year six.

## MCHIP/Tanzania Immunization Program Objectives:

- 1. Assist the MOH/IVD and partners at national level in introducing and sustaining new vaccines and strengthening routine immunization
- 2. Build the capacity of MOH/IVD's staff to support and improve the performance in routine immunization and new vaccine introduction
- 3. Collaborate with the MOH/IVD to improve the coverage and quality of routine immunization services in poorer performing regions provide a platform for new vaccine introduction
- 4. Strengthen the capacity of lab technicians for RV surveillance
- Complete obligatory close-out procedures and transition some or all of MCHIP's support for new vaccine introduction and routine immunization strengthening to other USAID mechanisms, MOH/IVD, and partners

<sup>&</sup>lt;sup>2</sup> The proxy indicator for routine immunization coverage is measured by the third dose of diphtheria-tetanus-pertussis containing vaccine administered prior to 12 months of age.

## **KEY ACHIEVEMENTS**

Objective 1: Assist the MOH/IVD and partners at national level in introducing and sustaining new vaccines and strengthening routine immunization

- In partnership with the MOH/IVD, MCHIP played a key leadership role within the Interagency Coordinating Committee (ICC) to assist in planning for and implementing the simultaneous introduction of two new lifesaving vaccines: PCV and RV. MCHIP participated in all of the ICC technical sub-committees (New Vaccine Training; Cold Chain and Logistics; and Social Mobilization and Communications Coordinating Committees), in addition to working with partners to coordinate the training of 361 national and zonal level health staff on new vaccine introduction.
- MCHIP supported the MOH/IVD in revisions of key national policies, most notably revision of the immunization schedule to align with the target ages for the new vaccines (i.e., from 4, 8, and 12 weeks to 6, 10, and 14 weeks).
- MCHIP provided key support in the development of information, education, and communication (IEC) materials for PCV and RV vaccines, including the field pre-testing, finalization, distribution, and launching of these messages and materials through different media outlets (e.g., television, radio, posters, leaflets).
- Logistics guidance was provided by MCHIP for financing of (through CIDA) and planning for installation of walk-in cold rooms installed in 19 regions to accommodate the additional space needed for the new vaccines.
- MCHIP supported the introduction planning, training, and rollout of measles second dose (MSD), including updating monitoring tools and training materials in April 2014.
- Stock management tools and reports were updated to include PCV, RV, and MSD vaccines and commodities.
- MCHIP played an integral role in the planning and implementation of the RV and PCV post-introduction evaluation in November 2014.
- In collaborated with partners, MCHIP assisted in drafting the National Immunization Communication Strategy and Plan for Tanzania Mainland and Zanzibar.
- MCHIP provided the MOH/IVD with technical assistance to update Tanzania's comprehensive multi-year plan for 2011 to 2016.
- MCHIP assisted MOH/IVD and worked with partners in compiling all necessary documents for submission of applications for the MSD vaccine, the measles and rubella vaccine, and inactivated polio virus vaccine, and to the GAVI Alliance.

Objective 2: Build the capacity of MOH/IVD staff to support and improve the performance in routine immunization and new vaccine introduction

As part of MCHIP's technical assistance to the MOH/IVD and partners:

- Mid-level Manager (MLM) materials and training protocols were adapted and finalized. Trained 42 national-level trainers on MLM.
- Key MLM modules were finalized for sub-national MLM trainings.
- PCV and RV training materials were developed, printed, and disseminated.

- Council and Regional Health Management Teams and health facility workers were trained in PCV and RV introduction.
- Regional and district-level health worker capacity was strengthened on routine immunization and management of new vaccines.
- All regional and district microplans were updated to include new vaccines.
- Immunization reporting and monitoring tools were updated and printed to include new vaccines.
- PCV and RV vaccine supportive supervision activities were conducted in all regions following introduction.

#### MCHIP also participated as a key technical partner in:

- Rapid district cold chain inventory (conducted through multi-agency collaboration in 130 districts, with 105 vaccines stores identified as having a shortage of refrigerators). Guidance for the installation of cold rooms in 19 regions in advance of new vaccine introduction, with 12 installed after introduction.
- Training 149 District Immunization and Vaccine Officers (DIVOs) from 24 regions on vaccine management. Out of those, 75 were financially supported by MCHIP while the rest were funded by both WHO and UNICEF.
- Training 50 Regional Immunization and Vaccine Officers (RIVOs) and national IVD/MOHSW officers and 34 Regional Vaccine Storekeepers on vaccine management.
- Training 26 Regional Cold Chain technicians on maintenance and repair of installed walk-in cold rooms and standby generators.

Objective 3: Collaborate with the MOH/IVD to improve the coverage and quality of routine immunization services in poorer performing regions and provide a platform for new vaccine introduction

MCHIP (in consultation with the MOH/IVD), identified 11 lower performing districts across three regions (Kagera, Tabora, Simiyu) in Mainland and Zanzibar that account for >40 percent of under-vaccinated children in Tanzania (Kagera—Karagwe, Kyerwa, Ngara Muleba; Tabora—Urambo, Kaliua, Tabora Urban; Simiyu—Baradi Town Council, Bariadi District Council, Itilima and Maswa). MCHIP conducted situational assessments in these districts to identify gaps in routine immunization service delivery that were contributing to lower vaccination coverage.

#### Assessments found the following key weaknesses:

- Lack of microplans at district and health facility levels.
- Inadequate mapping of communities and identification of hard-to-reach populations.
- Insufficient frequency of supportive supervision due to lack or delay of funding for the activity.
- Inadequate transportation for vaccine distribution; a problem exacerbated after PCV and RV vaccines were introduced due to increased volume of the vaccines without additional vaccine carriers and/or vehicles/trucks to accommodate them.
- Poor data quality and inaccurate vaccine forecasting, due to the target population not being well-known or accurately calculated. Inadequate knowledge on the interpretation and use of electronic temperature monitoring devices for action.

- Inadequate use of data at health facilities for decision making and action.
- Inadequate defaulter tracing mechanisms at health facilities.
- The following trainings had not been conducted in recent years:
- MLM training
- Immunization in Practice (IIP) training
- Reach Every Child (REC) training
- Vaccine Management Training

To address these issues, MCHIP achieved the following results:

- Skills among District Health Management Teams in Zanzibar and Council Health Management Teams (CHMTs) across focus districts in Tanzania Mainland were strengthened for microplanning and implementing the REC approach through trainings and follow-up visits during quarterly review meetings.
- MCHIP supported primary health care meetings, working with facility level staff to address issues in need of management attention.
- Regional level technicians were trained to strengthen their skills in cold chain equipment maintenance. This was part of the national capacity building support to RIVOs and DIVOs.
- Finalized adaptation of MLM and IIP training modules.
- Conducted training for REC among CHMTs in all districts within the focus regions, and one health worker from all health facilities in all focus districts.
- Strengthened supervision skills of the MOH staff, RHMTs, and CHMTs for on-the-job mentoring to vaccinators.
- Improved vaccine and related supply distribution for DIVOs by encouraging bundling of supplies through the development and use of a simplified electronic forecasting tool, which was also accepted and used in non-focus regions and districts.
- Assisted health workers to better calculate vaccine and related supply needs based on their target population and community mapping, in addition to understanding and using their data for decision making.
- Strengthened community linkage with immunization services and improved defaulter tracing
  mechanisms through development of community health worker (CHW) immunization package
  and oriented CHWs on immunization services, emphasizing defaulter tracing from all health
  facilities in the focus districts.

Objective 4: Strengthen the capacity of lab technicians for rotavirus surveillance

 Supported national and regional level surveillance officers to receive training in routine vaccination surveillance.

#### **WAY FORWARD**

#### Data quality

Data quality, management, and use are important areas that need to be addressed. RIVOs and DIVOs should be more engaged and their capacity built to ensure that discrepancies in data at all

levels are being resolved and so that data reported through the system to regional and national levels are harmonized. Increasing their participation in the Comprehensive Council Health Plan planning process and review meetings would also improve their engagement.

In addition, Data Quality Self-Assessment training in the lower performing focus districts is needed to address the continued problem of poor data quality at health facilities.

### **Capacity building**

The REC strategy should continue to be implemented, in addition to using the rapid assessment checklist as a monitoring tool to evaluate progress of implementation. This should be part of the process that includes updating microplans and identifying children being missed by vaccination services to increase coverage in focus areas as well as for expansion of these practices to other regions.

The MOH/IVD will need to work with WHO to finalize the adapted MLM and IIP training modules so training can be conducted at sub-national level. MOH/IVD will continue to work with all partners to ensure coordination with zonal health resource centers so that MLM training is rolled out and IIP modules are used beyond the Maternal and Child Survival Program-supported districts.

Supportive supervision visits will need to be strengthened in under-performing districts as well as through the MOH/IVD system at all levels, by providing more on-the-job mentoring, strengthening this component within REC, and ensuring that the system verifies implementation of recommendations from previous visits.

### **Pre-service training**

Within the current medical and nursing school system, the curricula lack basic competencies around administration and management of vaccination services. Current training focuses primarily on broad epidemiology and public health concepts, leaving a reliance on in-service training for health workers to understand key concepts in delivering and managing vaccination as well as with compilation, analysis, and use of data for planning. Pre-service curriculum should be integrated into the learning program of Environmental Health Officers (who become DIVOs), Public Health Nurse B, and nurses—the health professionals that are most likely to deliver and manage vaccination services.

## **Vaccine management**

Insufficient knowledge of vaccine management among health care workers at all levels and inadequate or lack of cold chain transportation equipment are resulting in stock outs and increased trips between districts and health facilities. To ensure availability of vaccines and related supplies that are kept safe and ready to administer at the last mile, MOH/IVD will need to continue working with its partners to invest in vaccine management and build capacity for maintaining cold chain equipment and addressing transport needs at sub-regional level.

## **Linking services with the community**

To increase and sustain community demand and utilization of immunization services, there is a need to have appropriate mechanisms by which community and civil society organizations can actively participate in the planning of immunization services. Through the MOHSW, the government of Tanzania should capitalize on the current momentum around the recently developed CHW Strategy and put policies in place that will recognize CHWs as part of the health system. This should include implementation of sustainable mechanisms for motivating them in their work and building their knowledge and capacity to effectively support the delivery of integrated community-based interventions, including immunization services.