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*Until no
child has
AIDS.*

STRENGTHENING HEALTH SYSTEMS FOR A SUSTAINABLE HIV RESPONSE IN TANZANIA



Strong health systems are critical for achieving the global goal of ending the AIDS epidemic, including ending HIV/AIDS in children. This brief describes the approach of the Elizabeth Glaser Pediatric AIDS Foundation (EGPAF) to building the capacity of and strengthening the health system in Tanzania, enabling it to support high-quality, cost-effective, accessible HIV services and to increase the number of people accessing those services.

EGPAF'S GLOBAL APPROACH TO HEALTH SYSTEMS STRENGTHENING

EGPAF is a leader in the HIV response, having reached more than 25 million women with prevention of mother-to-child transmission of HIV (PMTCT) services. EGPAF advances its mission to end pediatric HIV/AIDS through comprehensive HIV prevention, care, and treatment programs for adults, adolescents, and children.

Since 1999, EGPAF has provided technical assistance (TA) to national partners, including ministries of health and civil society organizations, to strengthen national health systems to effectively support a high-quality HIV response. As part of EGPAF's commitment to advancing a sustainable, nationally-owned HIV response, the organization works with and through existing host country structures, with a focus on bolstering the health system's managerial, administrative, clinical, and operational capacity. This work involves strengthening the efficiency, effectiveness, and accessibility of the systems most critical for HIV services. These systems include primary care; tuberculosis (TB) and maternal, newborn, and child health (MNCH) service delivery; supply chain; laboratories; health management information systems; workforce capacity; and leadership and management at the national and decentralized levels. Where gaps exist and systems are not in place, EGPAF supports governments and other national partners to introduce effective processes that are fully aligned to and integrated with the national health system. EGPAF strengthens a range of health system components through TA approaches, including training, supportive supervision, mentoring, and the development of tools, resources, and packages for use by health workers and health managers.

EGPAF Key Results:

- Reached over 25 million women with PMTCT services since 1999
- More than 800,000 people living with HIV currently enrolled on antiretroviral therapy, including 60,000 children
- Currently supports nearly 5,500 sites in 19 countries
- More than 200 national partners

** As of June 2016*



The Moby App provides decision support to a nurse during consultation of a pregnant mother. (photo: Thaddeus Musembi/EGPAF, 2015)

EGPAF-TANZANIA PROGRAM

EGPAF has worked in Tanzania since 2003, earning recognition as a leader in providing high-quality TA to regional health management teams (RHMTs), council health management teams (CHMTs), health facilities, and local implementing partners. In 2015, EGPAF supported integrated reproductive and child health (RCH) and PMTCT services at more than 1,400 health facilities in eight regions, comprehensive HIV care and treatment services at 273 health facilities in four regions, and community-based care and support services in six regions and on Zanzibar. During this past decade, EGPAF has excelled in continuous support to a rapidly growing program; the number of patients on antiretroviral therapy (ART) has increased from fewer than 2,000 to over 75,000, and the annual number of women accessing PMTCT services has increased from about 20,000 to over 500,000. EGPAF currently supports 12% of all patients receiving ART in Tanzania. To achieve these results, EGPAF works in close partnership with the Tanzanian Ministry of Health, Community Development, Gender, Elderly, and Children to increase coverage of and access to integrated and comprehensive MNCH, TB, and HIV services; improve the quality of service delivery; and strengthen health systems to achieve the sustainability of programs. The overall aim of these activities is to help Tanzania achieve the national goal of “Zero New HIV Infections, Zero AIDS-Related Deaths, and Zero Stigma and Discrimination.”

In 2011, as part of EGPAF’s commitment to a sustainable national HIV response, it established the Ariel Glaser Pediatric AIDS Healthcare Initiative (AGPAHI). AGPAHI, an independent national organization affiliated with EGPAF, receives collaborative TA from EGPAF in a variety of operational and technical areas. With support from the U.S. Centers for Disease Control and Prevention, AGPAHI has progressively grown to be one of the four main national implementing partners in Tanzania, supporting 43,000 people on ART at 332 sites in two regions. In addition to AGPAHI’s role as implementing partner, it is also an advocate for patient-centered policies in Tanzania and has been recognized as a technical leader by a range of Tanzanian and international groups.

EGPAF-Tanzania Key Results:

- Reached more than 4.1 million women with access to PMTCT services
- Tested more than 3.3 million pregnant women for HIV through EGPAF-supported programs
- Provided antiretrovirals to more than 110,000 HIV-positive pregnant women
- Since 2003, initiated more than 151,000 individuals, including nearly 14,000 children, on ART
- Screened more than 1.4 million individuals, including over 75,000 children, for TB in HIV care or treatment settings

**As of June 2016*

ADVANCING AND ACHIEVING 90-90-90 IN TANZANIA

In 2014, the global community, led by the Joint United Nations Programme on HIV/AIDS, committed to appropriately ambitious targets to end the AIDS epidemic by 2030. This goal is grounded in an important interim goal of achieving 90-90-90 by 2020: 90% of people living with HIV know their status; 90% of those infected with HIV receive and are retained on ART, regardless of CD4 count; and 90% of those on ART are virally suppressed. In 2015, the global goal of 90-90-90 was reinforced through the updated World Health Organization (WHO) guidelines, which recommend initiating all HIV-infected adults, adolescents, and children on ART, regardless of CD4 count. The global commitment to 90-90-90 represents a major paradigm shift in the HIV response and will require an increased emphasis on strengthening national health systems to support high-quality, cost-effective, accessible HIV services to increase and sustain the number of people accessing and using services.

In Tanzania, achieving 90-90-90 will require a 65% increase in the number of people on ART, from 640,000 to 972,000. EGPAF continues to invest in strengthening the systems necessary for 90-90-90 through current and new evidence-based approaches. This includes developing and managing a knowledgeable, skilled health workforce; increasing the effectiveness of community and facility-based service delivery through integration, differentiated models of care, and quality improvement; increasing laboratory capacity for HIV diagnosis, including early infant diagnosis and viral load monitoring; ensuring a consistent supply of commodities through increased capacity and use of national supply chain systems, forecasting and planning for additional patients, and redistribution; and improving data for decision making and patient care through scaled use of national and electronic data systems, data quality assessments, and institutionalization of a culture of data use among national partners.

EGPAF'S APPROACH TO STRENGTHENING HEALTH SYSTEMS

Advancing a Nationally Owned, Multistakeholder HIV Response in Tanzania

Achieving the end of AIDS in Tanzania will require the coordinated efforts of a range of stakeholders, including national and decentralized government authorities, civil society organizations, the private sector, and, critically, engaged communities. For this reason, EGPAF works to build capacity to support a high-quality response from the national level to the community level. It currently uses three main methods to strengthen health systems:

- *The District Approach:* EGPAF was a pioneer in developing and implementing the district approach, a method now used by implementing partners and donors across several countries. Through the district approach, EGPAF builds the comprehensive capacity of CHMTs to advance locally-owned and locally-driven methods for providing and managing service delivery in facilities and communities. Within the district structure, CHMTs are responsible for providing quality health care services, including establishing the overall vision and direction for the district health system, setting priorities, and ensuring that guidelines, policies, and regulations are implemented. Through the

EGPAF's District Approach: To improve financial oversight, accountability, and coordination of donor-funded activities, EGPAF has built the capacity of CHMTs to use the government of Tanzania's planning and financial management software, PlanRep and Epicor. Work plans and budgets for activities supported by EGPAF through subagreements are uploaded under the development account into the national PlanRep tool and Epicor accounting system. Expenditures are managed through Epicor.

district approach, using a decentralized annual planning process aligned with the government of Tanzania's fiscal year, priority activities are funded through subagreements and incorporated into the annual comprehensive council health plans. This structure enables districts to directly support and implement comprehensive RCH and HIV care and treatment program activities, including training, provision of staff salaries, transportation of laboratory samples, patient referrals, supportive supervision, and mentorship. Providing resources through subagreements also allows districts to plan for and allocate resources where they are most needed and where they can have the greatest impact on addressing district-specific barriers to improved uptake and quality of services. In 2015, EGPAF directly supported 47 local government authorities to provide PMTCT services in eight regions, 28 local government authorities to provide HIV care and treatment services in four regions, and 16 faith-based facilities and 2 nongovernmental organizations.

- *Organizational Development for Local Civil Society Partners:* EGPAF provides comprehensive technical and operational organizational development support to local implementing partners, including AGPAHI, the Pediatric Association of Tanzania, and the Tanzania Red Cross Society. EGPAF's organizational development approach emphasizes strengthening not only the clinical and technical areas necessary to support high-quality programming but also the administrative, managerial, and operational systems and platforms critical for ensuring the effective operations and sustainability of the organization.
- *National-Level Technical Assistance:* EGPAF provides technical input and guidance at the national level through technical working groups in an effort to advance and improve patient-centered policies and adoption of normative guidelines. EGPAF also works with members of the Tanzanian parliament to ensure they are aware of and up to date on the status of the HIV epidemic in-country, evidence-based approaches for the HIV response, and opportunities to improve patient care and access to services.



EGPAF strengthens laboratory capacity to improve the provision of quality HIV services. (photo:James Pursey/EGPAF)

Building the Capacity of Council Health Management Teams to Manage Service Delivery

EGPAF provides TA to strengthen the systems and institutions necessary to support integrated service delivery. It also builds the capacity of RHMTs and CHMTs to effectively coordinate and oversee HIV service delivery and to institutionalize health systems strengthening activities. While resources for the provision of quality services are provided through the subagreements, EGPAF also provides support to CHMTs that extends beyond clinical areas to strengthen district financial, human resources, information, and logistics systems to prepare the districts for the additional demands of integrated service delivery. By providing support during the implementation of the jointly developed work plan, EGPAF's teams build the capacity of CHMTs to coordinate, implement, and monitor comprehensive, integrated HIV and RCH services. This approach enhances local ownership and financial accountability, improves coordination of donor-supported activities, and contributes to program sustainability.

To systematically and comprehensively assess the capacity of CHMTs to manage service delivery in health facilities and communities and to identify capacity-building needs, EGPAF has developed a standardized capacity assessment tool. The EGPAF Sustainability Assessment Tool (ESAT) is used to conduct annual assessments and identify strengths and weaknesses across specific dimensions of the district health system and CHMT capacity, including service delivery and laboratory systems, leadership and management, financial management, supply chain, and health information systems, including continuous quality improvement, data quality, and data use.

Districts Capacity (baseline) Assessment Findings in 5 Districts (2015)						
District Councils (CHMTs)	HSS Component Score %					
	Leadership & Management	Service Delivery Support	Health Information System	Supply Chain	Human Resources for Health	Financing
Arusha CC	33	27	51	54	47	64
Rombo DC	35	29	44	63	27	55
Uyui DC	39	18	35	26	40	85
Kaliua DC	37	25	21	38	53	76
Nzega DC	44	46	55	51	43	75

Minimal Capacity

Moderate Capacity

Adequate Capacity

Strong Capacity

Based on the findings of ESAT, a joint action and TA plan has been developed to address priority areas for improvement and continued EGPAF support. Through training, targeted TA, supportive supervision, and mentoring, EGPAF supports CHMTs to achieve the milestones defined in their annual capacity-building plans. To build CHMT capacity to address identified health system challenges and effect change to improve service delivery, EGPAF provides leadership and management training using the Kaizen approach. EGPAF's goal is to support a process that allows the transition of technical and management responsibility—and eventually funding—to the districts through an iterative process of capacity assessment, capacity building, and transition of activities across district health system dimensions.

ESAT Findings:

In response to ESAT findings, EGPAF has provided TA to CHMTs to:

- Use the national Human Resources for Health Information System (HRHIS) database to identify and coordinate staff training needs.
- Define and disseminate district priorities.
- Use Open Performance Review and Appraisal System (OPRAS), the national performance appraisal system.
- Establish and evaluate the district referral mechanism.
- Develop annual equipment procurement and maintenance plans.

Increasing Access to Integrated Quality MNCH and HIV Services Along the Continuum of Care

Achieving 90-90-90 in Tanzania will require further increasing access to, uptake of, and retention in HIV services and ensuring the quality of HIV services. To advance high-quality, accessible services, EGPAF supports three primary service-delivery approaches in Tanzania. First, EGPAF works to improve the continuum of care from the community to the facility level and across prevention, care, and treatment services. For example, EGPAF links HIV-positive pregnant women and mothers to community health workers for continued follow-up and promotes the formation of mother support groups at RCH facilities for ongoing support. Second, EGPAF supports districts and facilities to scale up HIV services within MNCH, TB, and pediatric services to maximize integrated access points for HIV services. For example, HIV-exposed infants are identified at RCH clinics during immunization visits and at inpatient wards. Third, EGPAF supports districts and facilities to introduce and scale up new evidence-based approaches to service delivery, including differentiated models of care. Examples include the Child-Centered Family Care Clinic at Kilimanjaro Christian Medical Centre, which provides family-focused care and treatment services; the Ariel Clubs, providing age-appropriate psychosocial support services for children; and the outreach services to make care and treatment services more accessible in remote areas. To build the capacity of health care workers, EGPAF works to establish a pool of district mentors for MNCH services and pediatric HIV care services. It also supports CHMTs in providing quality supportive supervision and assessing the quality of service delivery.

EGPAF's Use of the Kaizen Approach: Tabora Municipal Council faced high levels of staff absences. In response to the root causes identified using the Kaizen approach, the team established a task force to develop and orient staff on leave request policies and procedures. As a result, unapproved absences decreased by 46%.

Strengthening Laboratory Capacity for Timely HIV Diagnosis and Monitoring

Efficacious and efficient laboratory services, including point-of-care and laboratory-based CD4, hematology, and biochemistry, are essential for the provision of quality HIV services. EGPAF strengthens laboratory services in Tanzania by improving the Laboratory Quality Management System and the facility-laboratory sample referral systems; ensuring laboratories have necessary and operational equipment; supporting laboratories to achieve accreditation; and expanding the HIV diagnostic and monitoring services at facilities. EGPAF has procured and supported training on the use of laboratory equipment, including point-of-care equipment, to increase access to CD4 testing; it also provides support to districts to maintain laboratory equipment and manage maintenance contracts. EGPAF provides TA for international accreditation through the WHO Strengthening Laboratory Management Toward Accreditation program. The WHO accredited six laboratories (Mount Meru, Mawenzi, Kibong'oto, Sokoine, Nyangao, and Kitete hospital laboratories); a seventh laboratory (Kilimanjaro Christian Medical Centre) was accredited by ISO 15189. External quality assurance and proficiency testing for HIV testing has been supported at over 350 facilities, and laboratory information systems have been supported at 33 facilities. Timely sample transport, particularly for early infant diagnosis and viral load monitoring, and the rapid return of results are critical for minimizing loss to follow-up and providing responsive care. EGPAF has worked with all supported districts to enhance sample transportation networks and to strategically roll out point-of-care testing technologies. EGPAF is piloting an innovative Android application via smartphone or tablet that aims to minimize loss to follow-up and promote timely care by providing health providers with a tool to track lab tests, results, and results delivery from dry blood sampling for early infant diagnosis of HIV. Caregivers also receive text messages when test results are available.

EGPAF's Approach Increases Client Access: The percentage of clients enrolled in care and treatment services at a health facility with CD4 capacity increased from 42% in 2011 to 89% in 2015. The percentage of clients with a CD4 test result within two weeks after enrollment increased from 39% to 61% during that same period.

Strengthening Supply Chain to Ensure Continuous Access to Commodities

Effectively planning and budgeting for commodities, including test kits and drugs, are critical for minimizing stock-outs and interruptions to patient care and treatment. EGPAF uses a comprehensive approach to strengthen supply chain management in Tanzania; this approach includes building the capacity of pharmacy staff and district managers to forecast and manage stocks and to use national and specialized supply chain management systems. Through the district approach, mentorship, supportive supervision, and training, EGPAF builds the capacity of facility- and district-based pharmacy staff and managers to effectively forecast commodity needs, ensure on-time ordering through national systems, track stock, and redistribute stock among facilities. EGPAF has introduced a pharmacy database at 39 hospitals and 18 health centers, and it has trained district staff to use the national logistics management information system. EGPAF has supported the establishment and functioning of facility-based therapeutic medicine committees through advocacy, provision of guidelines, and orientation meetings in 20 districts of Tabora, Kilimanjaro, and Lindi; in nine of those districts, the committees are operational. Therapeutic medicine committees play a crucial role in improving the supply chain, ensuring availability of medicines and commodities at the site level, and supporting the monitoring of adverse drug reactions.

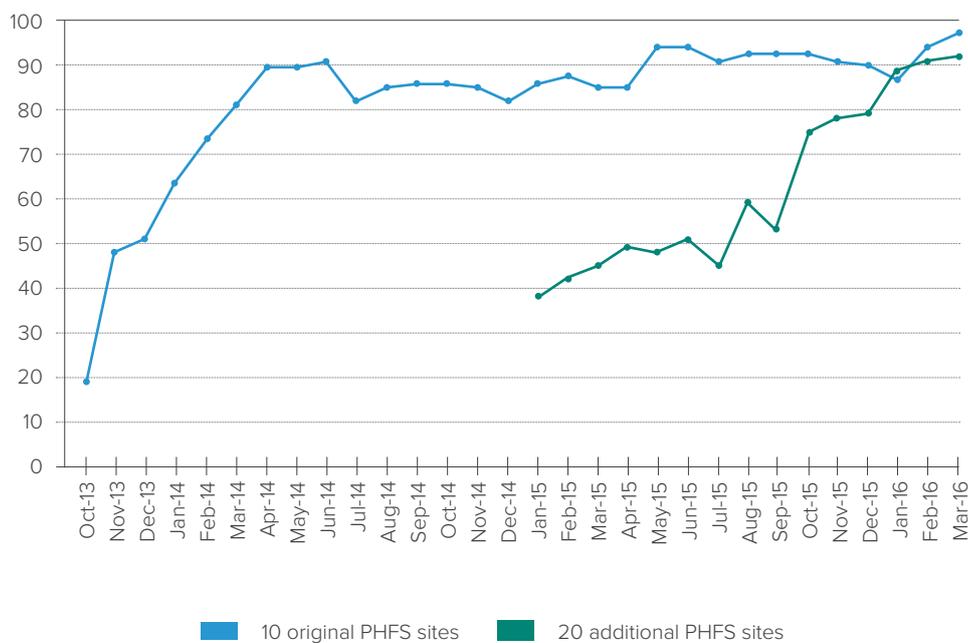
Improving Retention of Mother-Baby Pairs through Quality Improvement

Under the Partnership for HIV-Free Survival Initiative (PHFS), a joint effort between the World Health Organization and PEPFAR to assist six countries to improve PMTCT, maternal and infant care, and nutrition support for HIV-positive women and their exposed infants, EGPAF has worked in Tanzania with PHFS sites to apply quality improvement approaches to improve postpartum continuum of care in selected sites in Nzega District (Tabora). Tested changes have focused on strengthening postnatal services to improve the follow-up of the mother-child pair to keep them in a continuum of care and to improve ART uptake by HIV-infected mothers, antiretroviral uptake by HIV-exposed infants, early infant diagnosis, and initiation of ART in HIV-infected infants. They have also focused on promoting safer infant feeding practices. Tested changes demonstrated to be effective in improving continuum of care for mothers and infants will be scaled up to additional sites (see the figure).

Change Package:

- Dual mother-baby appointments
- Open HIV-exposed infant card when HIV-positive mother is identified; staple to the mother's CTC2 card
- Proactive linkage with a community health worker (CHW)
- Active tracing of mothers with missed appointments by phone and CHW
- Using Moby App, the mobile decision support and tracking tool
- Allocate special "family days" for fathers, mothers, and their babies

Percentage of HIV+ Mother-Baby Pairs Attending HIV Service Each Month in Nzega, October 2013 - March 2016



Improving Data Systems and Use for Patient Care, Quality Improvement, and Decision Making

Timely and accurate data and health information systems are critical for enabling health providers to offer quality patient care, supporting managers and policymakers to rapidly make decisions to advance the HIV response, and continually improving the quality of HIV services.

EGPAF supports sites in the use of the national District Health Information System and the implementation of the national electronic patient-level database for HIV care and treatment (CTC2), which was currently expanded to 90% of supported care and treatment clinics. EGPAF enhanced the electronic patient-level database to send SMS appointment reminders to patients. Other work to improve information systems includes conceptualizing and producing the national early infant diagnosis database and dashboard; developing a national pediatric HIV monitoring and evaluation database; and developing the Moby App, an innovative Android-based tool that, in addition to providing decision support for care providers, provides an electronic patient record for reporting and tracking mother-baby pairs. EGPAF is working to further enhance the app to reduce paper-based reporting burden, improve data quality, and improve the quality of service provision along the MNCH continuum of care.

EGPAF works with RHMTs and CHMTs to conduct quarterly data reviews, develop facility-based data use plans, and analyze program data to inform district- and facility-level planning and quality improvement. EGPAF supports CHMTs and health facilities to put into use the Tanzania National Quality Improvement Framework. To build a culture of continuous quality improvement (QI), EGPAF provides TA to facilities to use evidence-based continuous QI approaches and has supported districts to establish work improvement teams at 212 facilities. The EGPAF teams not only coach health facility staff during the implementation of QI cycles but also organize QI sessions to facilitate learning and the transfer of best practices between health facilities. EGPAF teams also build the capacity of health staff to employ the standard-based management-recognition approach for QI of MNCH services.

CONCLUSION AND FUTURE DIRECTIONS

Building on the progress achieved under the Global Plan to Eliminate New HIV Infections Among Children by 2015, Keeping Their Mothers Alive, and the renewed commitment to the Sustainable Development Goals, Tanzania has the potential to end the AIDS epidemic among children, adolescents, and young women by 2020. EGPAF will support Tanzania's progress toward this goal and will continue to build district health systems that accelerate and sustain access to comprehensive HIV services. EGPAF will continue to contribute to accelerated national and global efforts to end vertical HIV transmission, prevent new infections among adolescents and young women, and increase and sustain access to ART for children and adolescents.

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