

USAID REGIONAL HEALTH INTEGRATION TO ENHANCE SERVICES - NORTH, LANGO

# SOLAR SYSTEM INSTALLATION AT GENEXPERT HEALTH FACILITIES IMPROVES TUBERCULOSIS DIAGNOSIS



With reliable electricity at TB labs, the number of errors generated by GeneXpert machines was cut in half in less than six months.

### **BACKGROUND**

Despite a power surplus in Uganda, the Lango sub-region suffers frequent electricity outages, which affect most of the districts in the sub-region. As a result, much of the laboratory equipment at health facilities are non-functional, leading to expensive repairs, high error rates during GeneXpert testing, long turnaround times for test results, and wastage of laboratory materials due to lack of power to run refrigerators.

### **INTERVENTIONS**

Regional Health Integration to Enhance Services-North, Lango (RHITES-N, Lango), Lango installed seven new solar panel systems (of 3.5 KWTs each) at seven out of the ten GeneXpert sites in Lango. The solar systems were aimed to improve the functionality of laboratory equipment, especially GeneXpert machines used for detecting TB. The seven sites with new solar panels are Apac Hospital, Dokolo Health Center IV, Amolatar Health Center IV, Aboke Health Center IV, Orum Health Center IV, Anyeke Health Center IV, and Ogur Health Center IV.

### **RESULTS**

With the above intervention, taking the case of Orum HCIV in Otuke District, despite receiving a high number of samples (more than 200 samples each month), the number of errors/ samples without results reduced from 38 samples in January 2020 to 9 samples in September 2020.

In addition to GeneXpert machines, other machines for hematology and clinical chemistry were also connected. This eased baseline investigations for rifampicin-resistant TB patients in the region. With the solar panel systems in place, facilities also are able to download and print viral load and early infant diagnosis results in a timely manner.



Solar panels getting installed at one of the health facilities in Lango to support with back-up for power outages experienced in the region.

## GeneXpert error rate in 10 GeneXpert facilities supported by USAID RHITES-N, Lango



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# The USAID Regional Health Integration to Enhance Services-North, Lango project (RHITES-N, Lango)

works with the Government of Uganda to increase people's use of sustainable, high-quality health services in Uganda's Lango sub-region. The project provides a platform for communities, local governments, civil society organizations, and private sector actors to work together to improve the health of all residents. RHITES-N, Lango strengthens and integrates health services in HIV, tuberculosis, maternal and child health, family planning, malaria, nutrition, and water and sanitation. The project also addresses system-level issues such as having enough well-trained health workers and ensuring health data is used to make programming, budgeting, and other decisions.