



**GLOBAL
HEALTH**
SUPPLY CHAIN SUMMIT



Thanks to our generous sponsors





SIGLUS: Mobile-based Health Logistics Management in Mozambique

Presenters:

Milva Pene

Ministry of Health

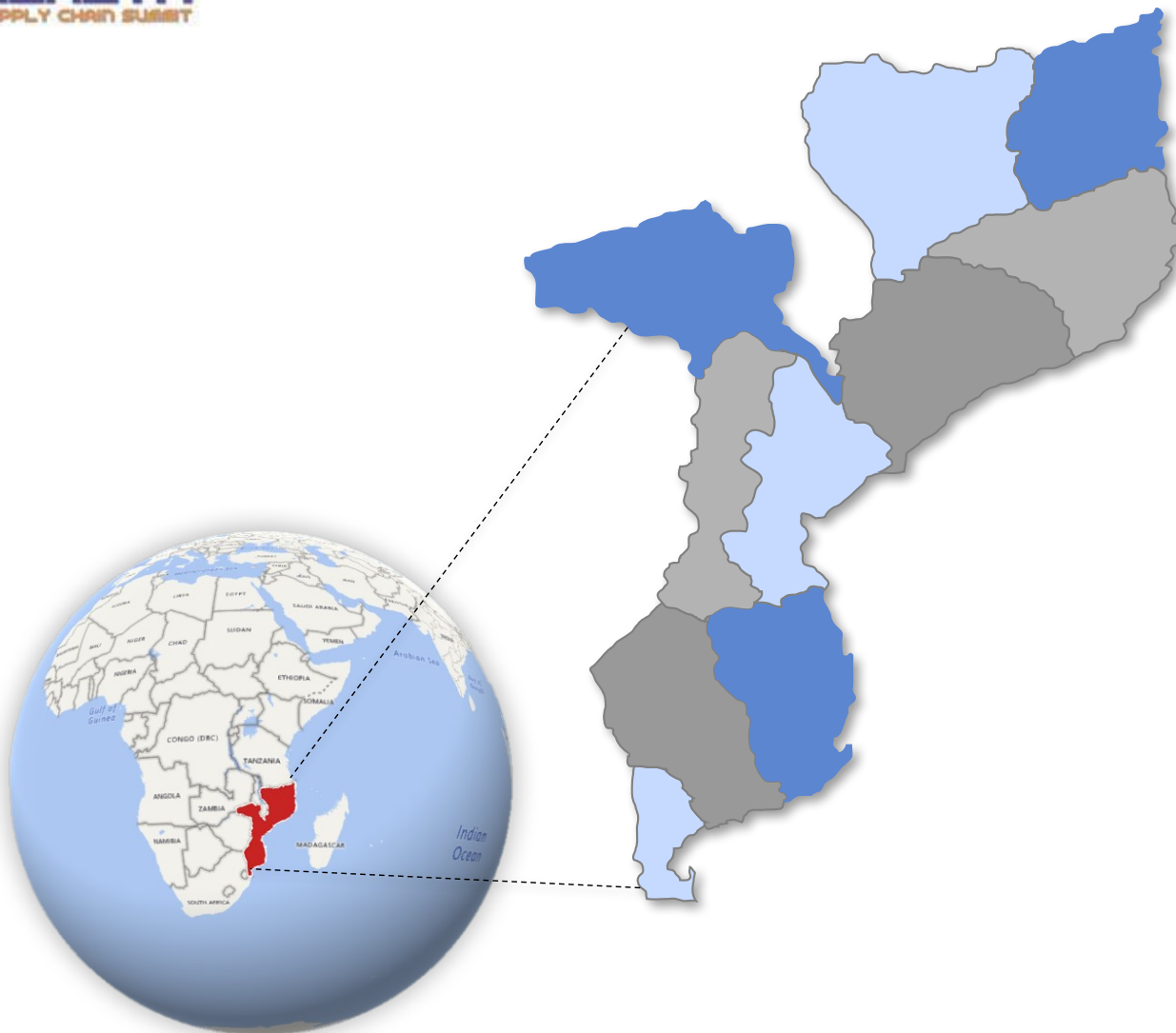
Manager of Provincial Warehouse

Dianna Lourenço

USAID Global Health Supply Chain Program

Procurement and Supply Management (GHSC-PSM)

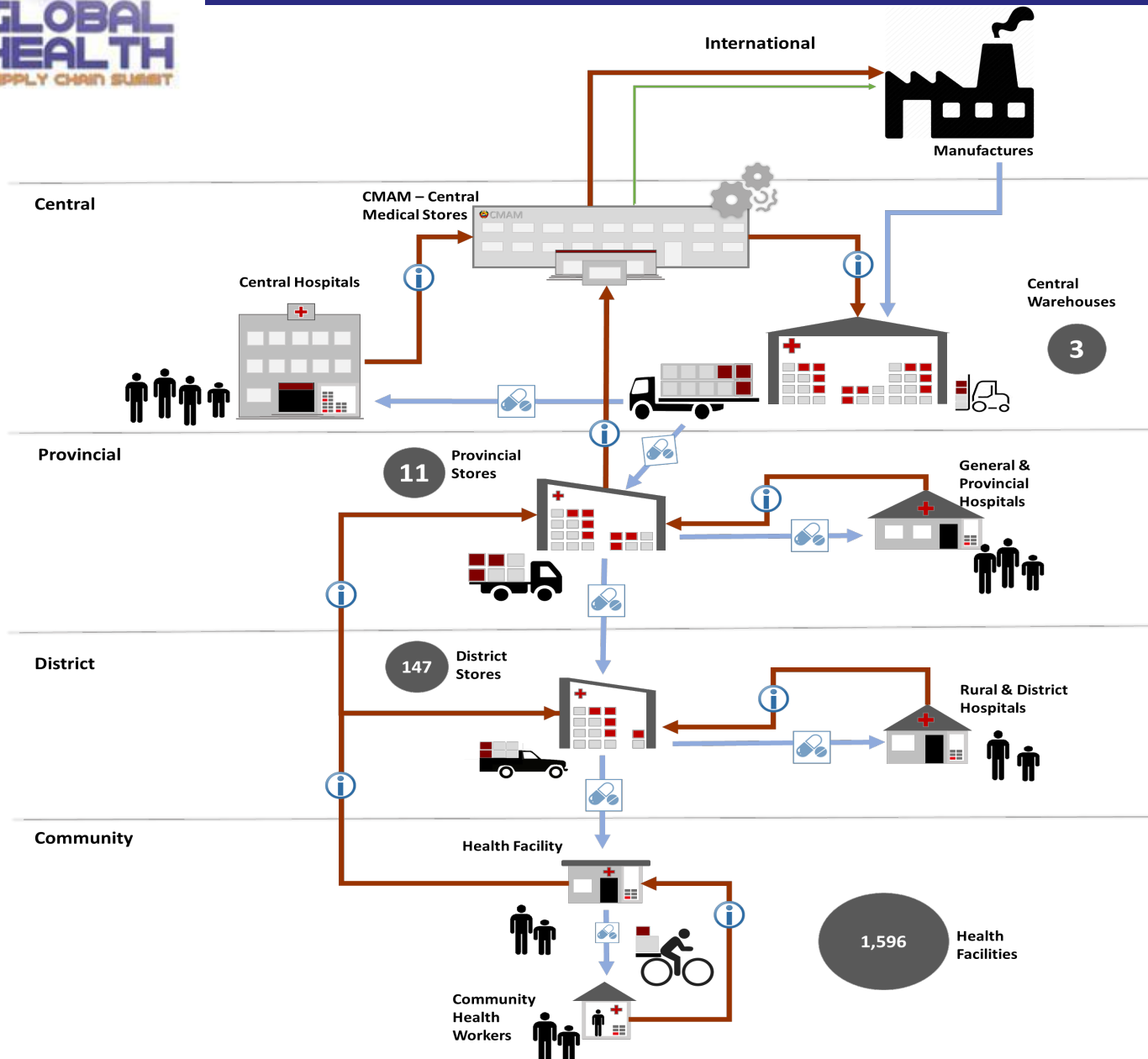
Context



- Located in Southeast Africa
- Total pop 27,128,530
- 11 provinces
- 147 districts
- 7.6 Doctors, 29 nurses per 100,000 people
- HIV prevalence of 13.2%
- 1,596 health facilities (INE-National Institute of Statistics)
- 96% of health facilities are Level 1: supplied only with standard kits for health facilities (39 essential products to cover up to 1,000 consultations)



Mozambique's Supply Chain

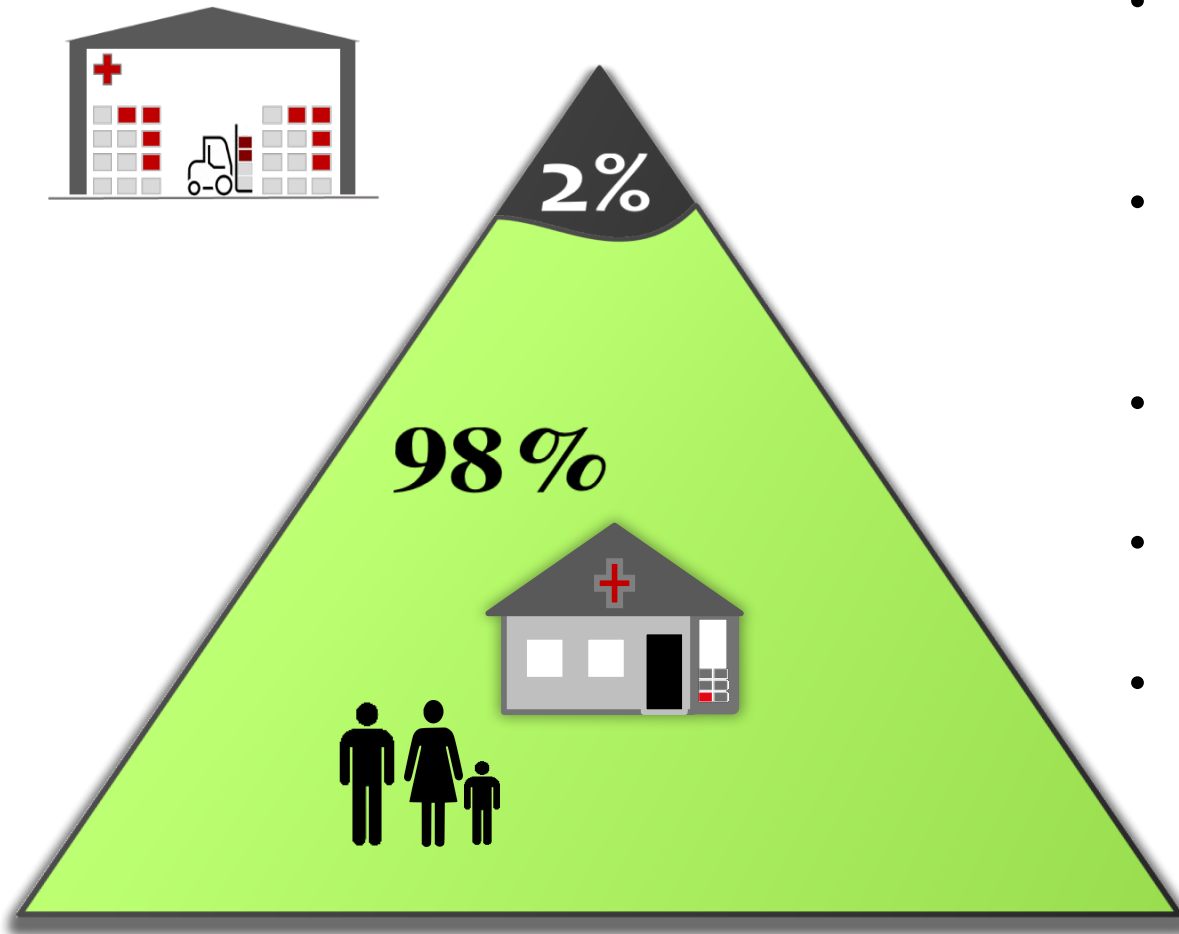


- Supply Chain Structured in 4 levels; plus the community
- Central-level Central Medical Stores & 3 regional warehouses
- 11 provincial warehouses
- 147 district warehouses
- 1,596 health facilities
- 3,500 community health workers



**GLOBAL
HEALTH**
SUPPLY CHAIN SUMMIT

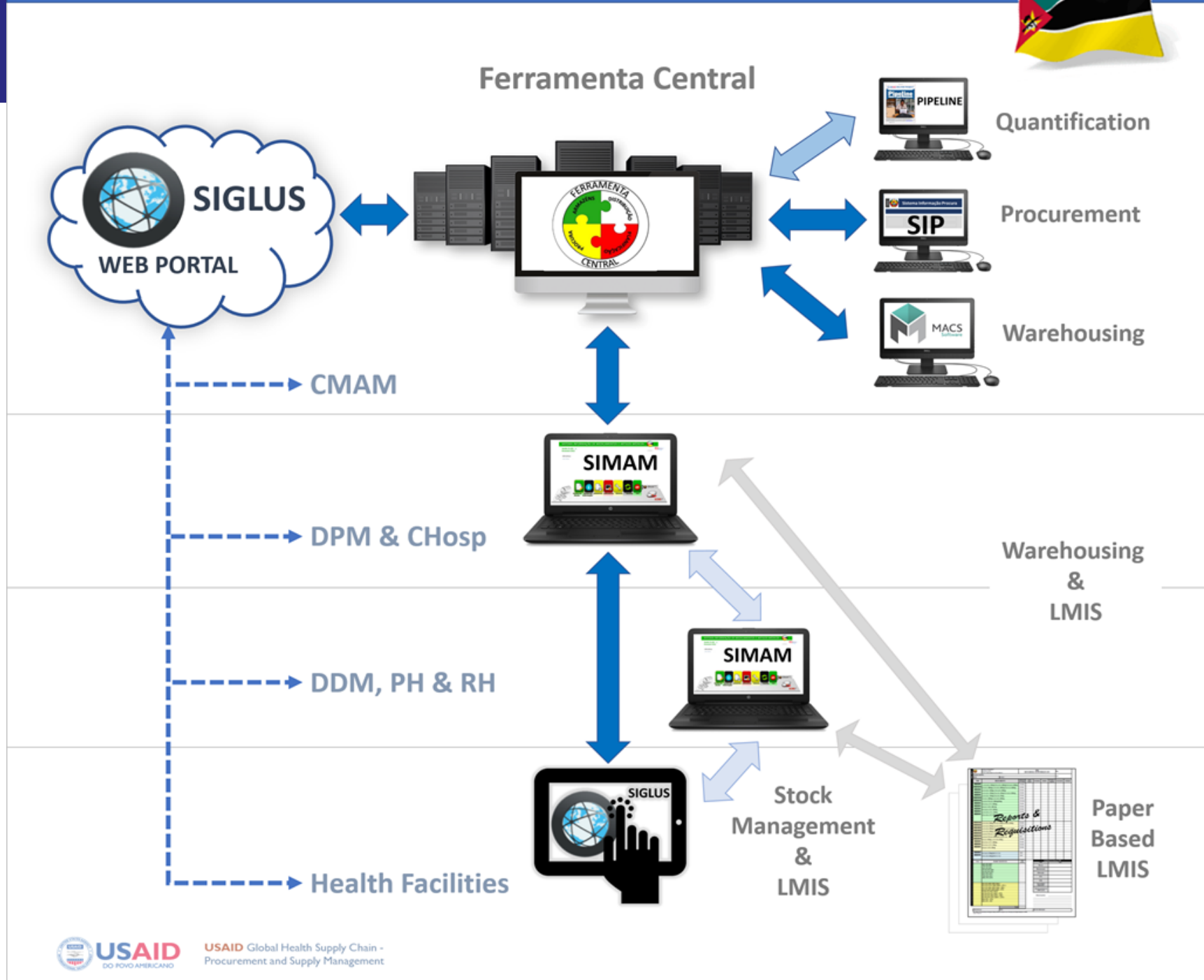
Data Gap in Supply Chain

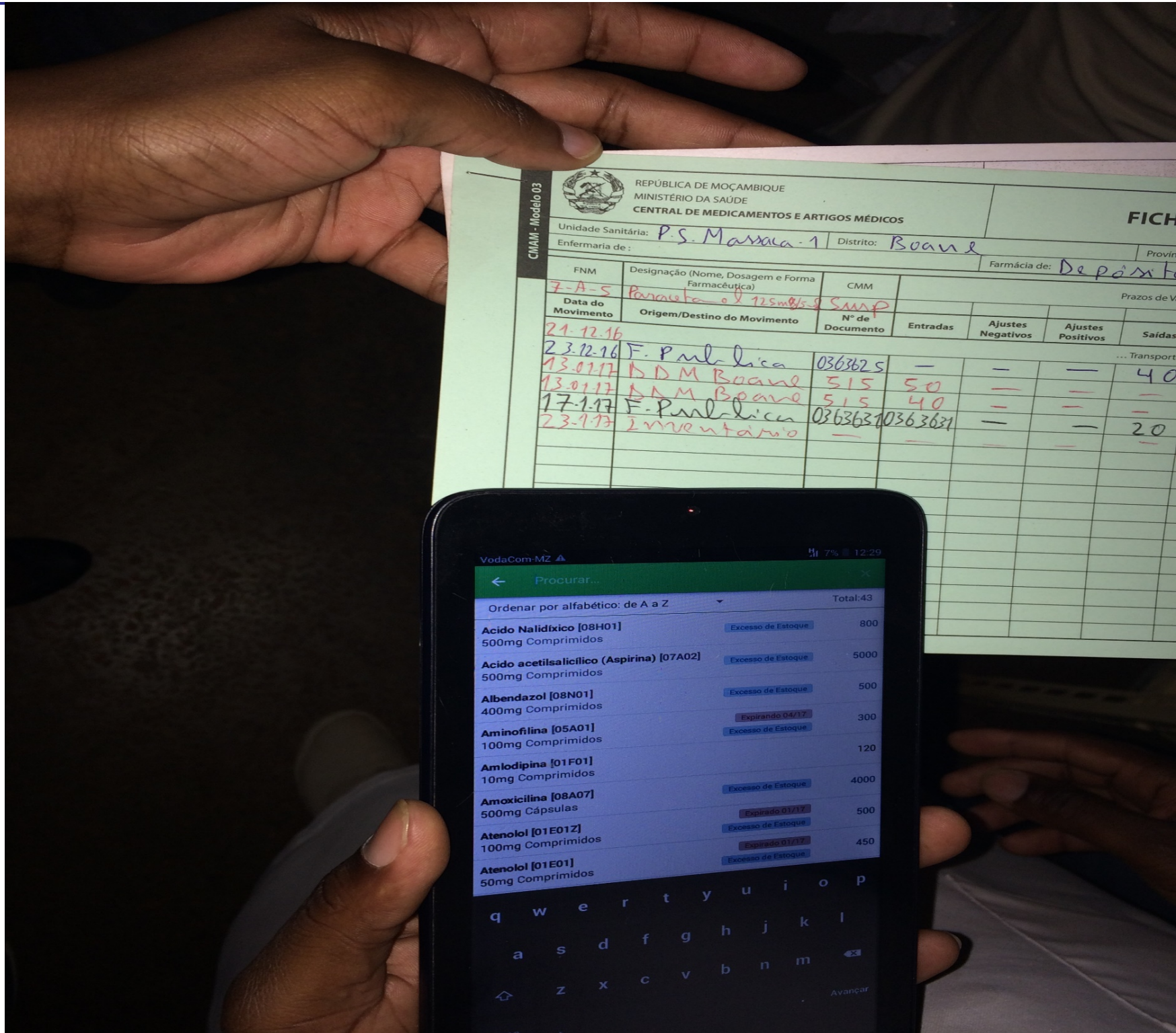


- Only central, provincial and district warehouses have computerized systems
- Decision makers lack visibility of stock information in the majority of the public health system
- Majority of the system relies on paper and aggregated data
- No visibility of the large bottom of the pyramid -98%
- Missing critical data on accessibility to medicines at Service Delivery Point



Mozambique - Logistic Management Information System





REPÚBLICA DE MOÇAMBIQUE
 MINISTÉRIO DA SAÚDE
 CENTRAL DE MEDICAMENTOS E ARTIGOS MÉDICOS

Unidade Sanitária: *P.S. Massala - 1* Distrito: *Boane* Farmácia de: *Depósito*

FICH...
 Enfermaria de:

FNM	Designação (Nome, Dosagem e Forma Farmacéutica)	CMM	Entradas	Ajustes Negativos	Ajustes Positivos	Saídas
<i>7-A-5</i>	<i>Paracetamol 125mg/5 Susp</i>					
<i>21.12.16</i>	<i>F. Pública</i>	<i>0363625</i>				
<i>13.01.17</i>	<i>D.M. Boane</i>	<i>515</i>	<i>50</i>			<i>40</i>
<i>13.01.17</i>	<i>D.M. Boane</i>	<i>515</i>	<i>40</i>			
<i>17.1.17</i>	<i>F. Pública</i>	<i>0363631</i>				
<i>23.1.17</i>	<i>Inventário</i>					<i>20</i>

VodaCom-MZ 7% 12:29

Procurar...

Ordenar por alfabético: de A a Z Total:43

Acido Nalidixico [08H01] 500mg Comprimidos	Excesso de Estoque	800
Acido acetilsalicilico (Aspirina) [07A02] 500mg Comprimidos	Excesso de Estoque	5000
Albendazol [08N01] 400mg Comprimidos	Excesso de Estoque	500
Aminofilina [05A01] 100mg Comprimidos	Expirando 04/17 Excesso de Estoque	300
Amlodipina [01F01] 10mg Comprimidos		120
Amoxicilina [08A07] 500mg Cápsulas	Excesso de Estoque	4000
Atenolol [01E01Z] 100mg Comprimidos	Expirado 01/17 Excesso de Estoque	500
Atenolol [01E01] 50mg Comprimidos	Expirado 01/17 Excesso de Estoque	450

Avançar



GLOBAL
HEALTH
SUPPLY CHAIN

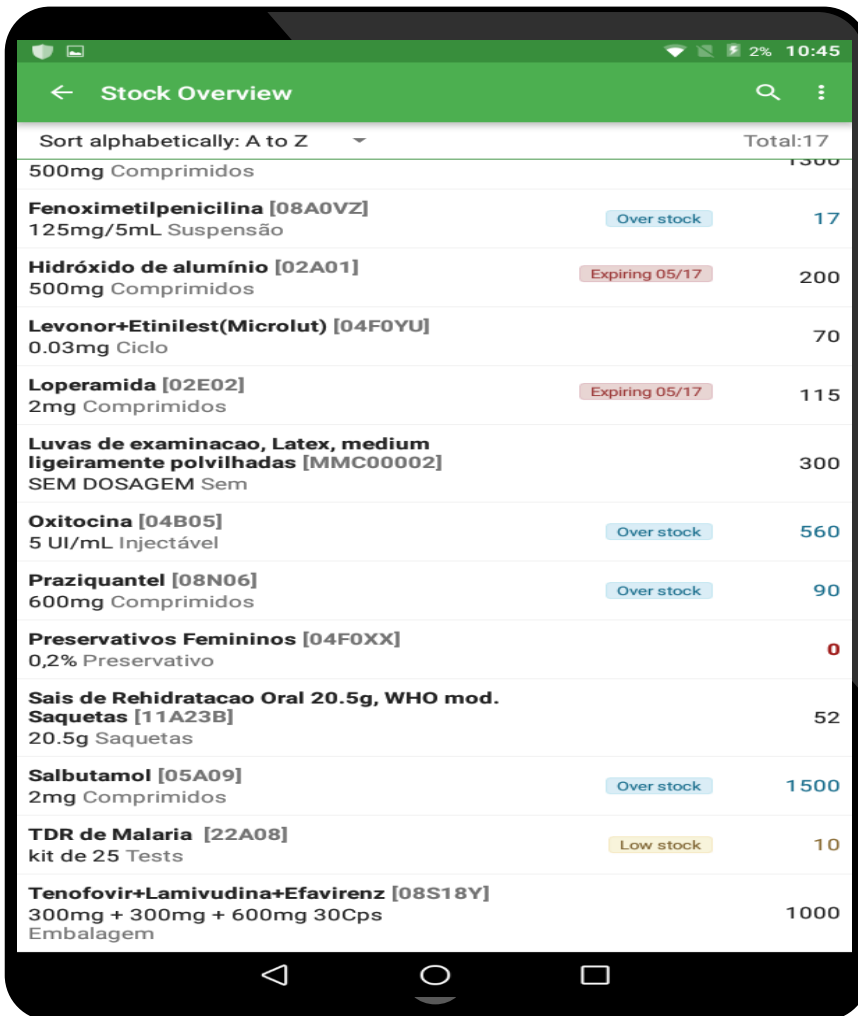
Mobile Solution for Impact



SIGLUS – Logistic Management Information System for the Health Facilities

- Clinton Health Access Initiative (CHAI) piloted a mobile application for health facility logistics management information system (LMIS) using the OpenLMIS platform
- Government evaluated all systems implemented for the health facilities' warehouse
- Decided with the most aligned with the objectives of PELF, acknowledging the work and involvement of other partners in finding the best solution for the gap of visibility at the health facility
- Since 2016, the USAID GHSC-PSM Program has supported the government in scale-up of the system, maintenance and development.

Characteristics of the Solution – The Mobile Tablet

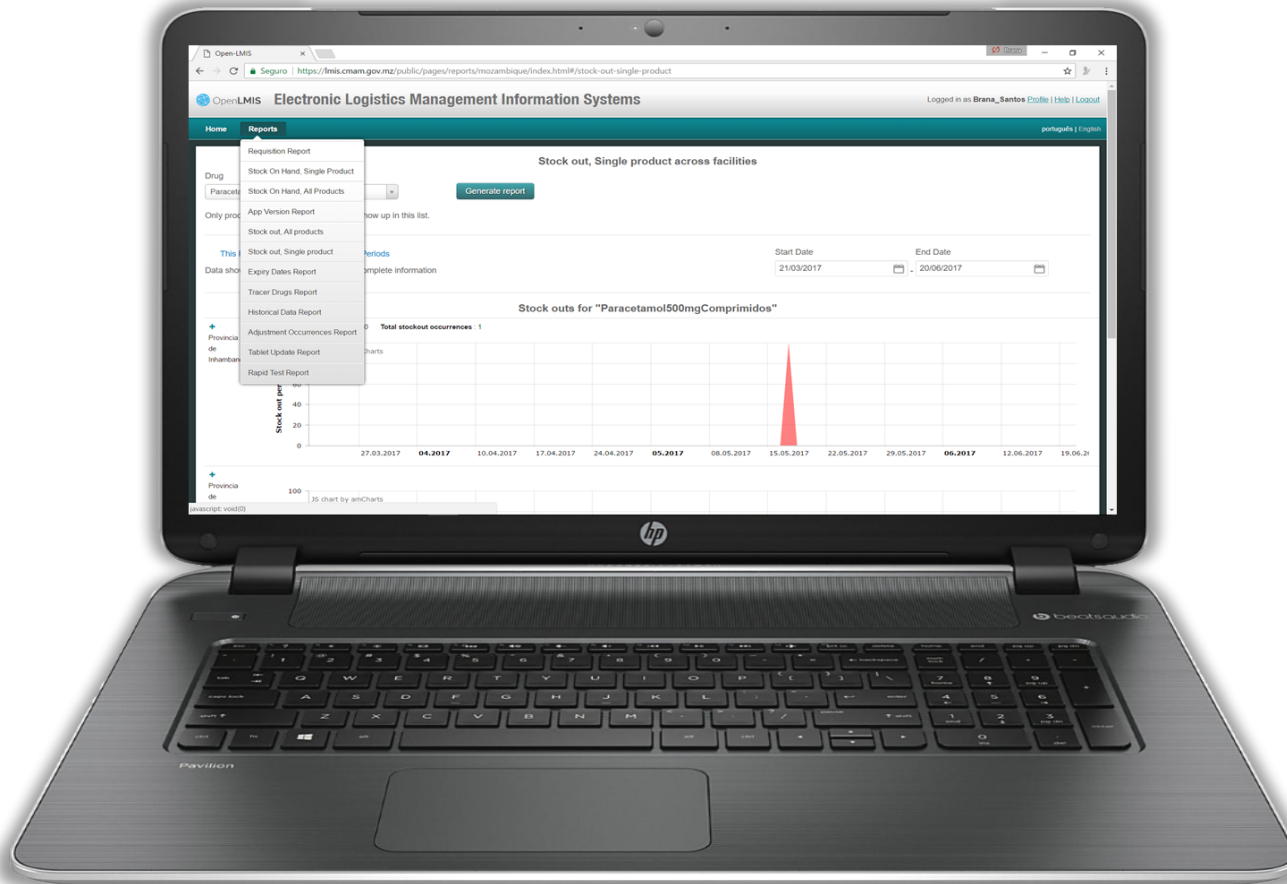


Sort alphabetically: A to Z		Total: 17
500mg Comprimidos		1300
Fenoximetilpenicilina [08A0VZ] 125mg/5mL Suspensão	Over stock	17
Hidróxido de alumínio [02A01] 500mg Comprimidos	Expiring 05/17	200
Levonor+Etinilest(Microlut) [04F0YU] 0.03mg Ciclo		70
Loperamida [02E02] 2mg Comprimidos	Expiring 05/17	115
Luvas de examinacao, Latex, medium ligeiramente polvilhadas [MMC00002] SEM DOSAGEM Sem		300
Oxitocina [04B05] 5 UI/mL Injectável	Over stock	560
Praziquantel [08N06] 600mg Comprimidos	Over stock	90
Preservativos Femininos [04F0XX] 0,2% Preservativo		0
Sais de Rehidratacao Oral 20.5g, WHO mod. Saquetas [11A23B] 20.5g Saquetas		52
Salbutamol [05A09] 2mg Comprimidos	Over stock	1500
TDR de Malaria [22A08] kit de 25 Tests	Low stock	10
Tenofovir+Lamivudina+Efavirenz [08S18Y] 300mg + 300mg + 600mg 30Cps Embalagem		1000

- Transactional stock-management tool
- User-accepted Android application on tablets
- Online/offline with automatic synchronizations
- Mimics paper form for easy training and comprehension
- Automated calculations for requisition process, including suggested reorder amounts to help reduce workload and improve uptake
- Alerts for low stock levels, stockout, overstocking, and upcoming expiries
- Batch number/lot information.



Characteristics of the Solution – The Web Portal



- Customized reports for Mozambique, such as weekly tracer drug report.
- Facility-level and aggregate reports and visualizations
- Data export for further analysis
- Access to all submitted requisitions
- Access to stock cards of products
- Tracking of synchronization status and order requisition timeliness



**GLOBAL
HEALTH**
SUPPLY CHAIN SUMMIT





Implementation Phases

- 157 sites by end of 2017
- Two phases of expansion:
 1. Controlled expansion
 - Stabilize the solution
 - Expand the system to different environments
 - Perceive new features to be included on the system
 - Incentivize the use of data for decision making
 2. Massive scale-up
 - Involvement of partners in the expansion, trainings and monitoring
 - Total leadership of province Directorate
- By end of 2018, there will be more than 400 health facilities with SIGLUS, representing 25% coverage of the health facilities of the country.



Private Sector Engagement

- Growing engagement with the private sector to ensure sustainability:
 - Lower costs of bundle specific for needs of the system
 - Lower costs of the equipment
 - Joint management of electronic equipment
 - Lower negotiated costs for the protection (blockage) of the tablets
- In the near future, growing engagement with local companies:
 - Development of new features
 - Capacity building of a community of programmers within country

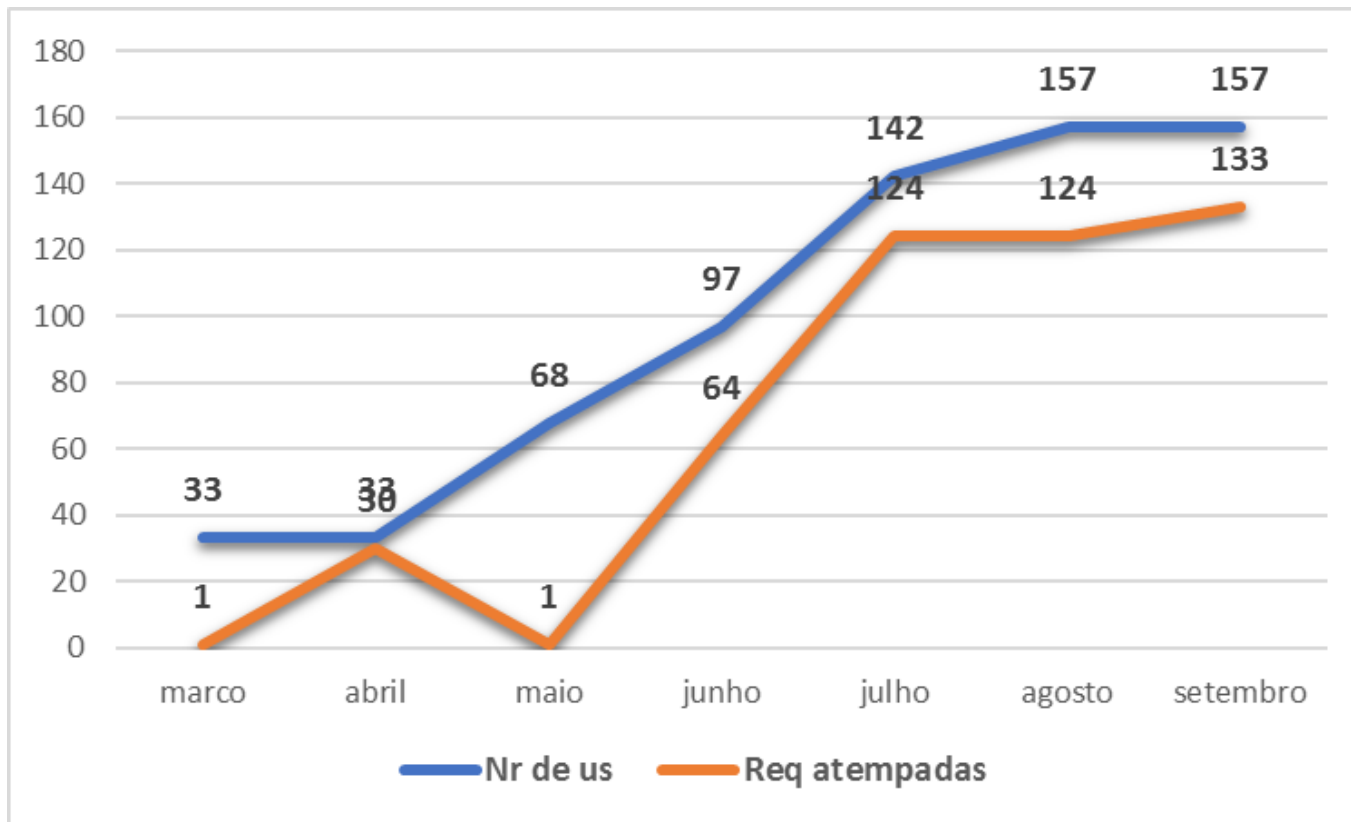


**GLOBAL
HEALTH**
SUPPLY CHAIN SUMMIT





Immediate Impact



- Increase of timely requisitions
- Replenishment and reallocation of medicines based on actual data
- Management of expired products



The Real Deal

Demonstration: impact on the management in the Gaza Province

- <https://lmis.cmam.gov.mz:8443>
- [Video](#)



Key Take-Aways

PELF - 10-year Strategic Plan for Mozambique's Supply Chain

- Addresses part of the information gap
- Better inform data-driven decisionmaking
- Visibility and control through the Supply Chain
- Aligned with PELF central objective of having the product available to those who need

- The success of the system relies mostly on continuous engagement with the private sector for a more robust and sustainable solution, a growing government leadership and continuous engagement and support of implementing partners of various areas



“... Thirty percent of the country’s health units are scheduled to be using an electronic logistics and inventory management system for goods and products, including contraceptives, by 2020”

~Health Minister Nazira Abdula, London

THANK YOU

Tablet update report: Limpopo

JS chart by amCharts



- 5 Health facilities last updated in the last 24 hours
- 1 Health facilities last updated in the last 3 days
- 0 Health facilities last updated more than 3 days ago

Facilities that haven't updated recently

— Gaza

— Limpopo

Chissano	● 10:11 AM 16 Nov 2017
Chipenhe	● 07:56 AM 16 Nov 2017
Zonguene	● 01:16 PM 16 Nov 2017
Julius Nyerere	● 03:27 AM 16 Nov 2017
Licilo	● 01:30 PM 16 Nov 2017
Vladimir Lenine	● 08:34 AM 14 Nov 2017

Thanks to our generous sponsors

