

# ANALYSIS OF ART PHARMACY DATA ON MEDICINE POSSESSION RATIO AND MULTI-MONTH DISPENSING (MMD) INFORMS FUTURE PROGRAM POLICY STRATEGY ON MULTI-MONTH SCRIPTING IN NAMIBIA

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## Background

Namibia has rapidly scaled up antiretroviral therapy (ART). An estimated 94% of adults living with HIV in Namibia are aware of their status and 96% of them are on treatment. As of January 2019, 95% of those on treatment were confirmed to be virally suppressed. Core to reducing facility congestion and ensuring that patients' medicinal needs are covered is a simplified model of Differentiated ART Services Delivery or DAD. The DAD model incorporates multi-month scripting and dispensing (MMD) to stable patients who meet strict treatment criteria. The overarching goal of the activity is to dispense a six-month supply of ARV medicines to patients who meet the criteria set by the HIV program.

## Analysis

In December 2018, the USAID Global Health Supply Chain Program-Procurement and Supply Management (GHSC-PSM) project in partnership with the Ministry of Health and Social Services (MOHSS) analyzed patient data from the Electronic Dispensing Tool (EDT) and the National Database to determine baseline dispensing practices and inform MOHSS ART dispensing policies. Between October 2017 and September 2018, the team reviewed data from 44 ART sites that serve more than 90% of patients receiving ART to understand refill rates and medicine possession ratios (MPR). They then conducted a cross-sectional analysis of the number of antiretroviral (ARV) refills per month. A minimum 80% MPR and maximum 130% MPR were determined to be acceptable measures of pill coverage for this analysis. The dataset included more than a full year of data to accommodate refills immediately prior to and after the period of analysis.

**Medicine possession ratio** is one way of measuring patient adherence. It is the percentage of time a patient has access to medication and calculated as:

$$MPR = \frac{(\text{Total (Rx) treatment days supplied over a specific period}) \times 100\%}{\text{Total number of days during specified period}}$$

An analysis of medicine possession ratio in Namibia was calculated for all active patients between September 2017 through October 2018. The total number of patients to achieve an MPR greater than 80% and less than 130% was 69,89 out of the total measured population of 109,048.

## Results

Approximately 58% of patients refill their ARV prescriptions every four to five months annually, which translates to about a three-month supply. Regional analysis indicates that more than 65% of patients in remote and highly populated regions are getting their refills every four months. This natural progression to MMD could have been necessitated by the need to reduce frequency of patient visits and decongest facilities.

This approach led to approximately 70,000 of 110,000 (64%) patients achieving 80% - 130% MPR. Of those patients within that acceptable MPR range, 35% refilled their prescriptions four to five times a year. As MPR is a measure of adherence, this indicates that there is a potential for stable patients to achieve higher MPR rates if their frequency of refill visits to facilities is reduced.

## Next Steps

The GHSC-PSM project in Namibia is working closely with the MOHSS to develop standard operating procedures for phased implementation of six-month dispensing. ART dispensing guidelines are also being reviewed by the MOHSS. They are considering evidence from this analysis to reduce patient visits to facilities. Simulated supply chain considerations for the implementation of six-month dispensing have been presented to the MOHSS as well as quality control measures for proper medicine management. This is expected to contribute to reducing congestion at ART sites, workload of pharmacy staff and time spent away from work by patients coming for ARV pick ups.



Tsegaye Telila (left), pharmacist is dispensing a multi-month medication supply to Claudia Shikalapo (right), a patient at the Central Katutura Health Center in Windhoek. Katutura Health Center is one of the busiest health facilities offering services in the public sector and serves approximately 6,500 patients on ART. GHSC-PSM provides support for electronic dispensing at Katutura Health Center. Photo credit: Salome Nzuma, GHSC-PSM.

ARV refills for patients during their most recent ART visit, October 2017 - September 2018 (active refills)

