

# The CQUIN Learning Network

## Centralized Chronic Medicine Dispensing and Distribution

A Public/Private Partnership to Increase Access to HIV/Chronic Medication

Phil Roberts  
Project Last Mile

May 22, 2018

ICAP Grand Rounds Webinar

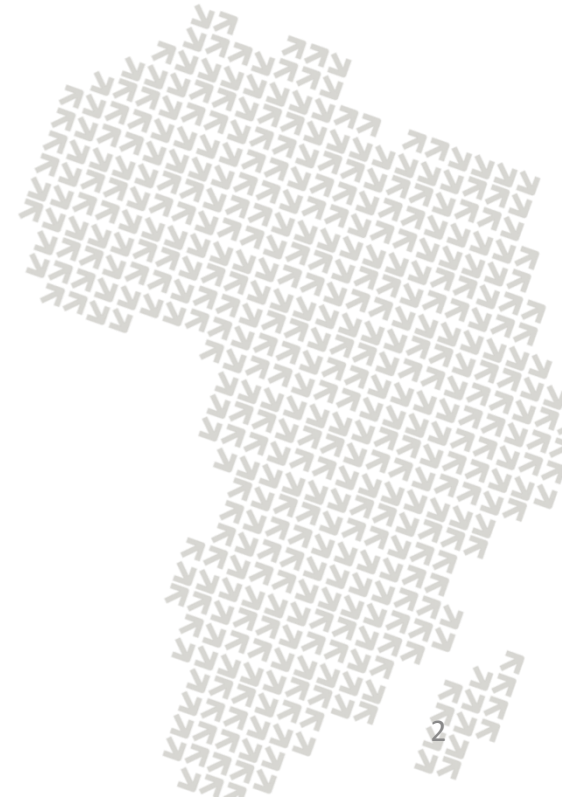


**HIV LEARNING NETWORK**  
The CQUIN Project for Differentiated Service Delivery



# Agenda

- **Introduction to Project Last Mile**
- **CCMDD in South Africa**
- **Current performance**
- **Business case**
- **Conclusion**



# Project Last Mile – the early idea



# Project Last Mile – the early idea



# Since the first pilot in 2010, Project Last Mile has activated programs in 8 out of 10 countries in Africa.

## **GHANA (2011 – 2013)**

Pilot created a blueprint for improved uptime of cold chain equipment used for vaccines and introduced the use of market research & segmentation model to improve uptake and adherence for immunizations.

## **NIGERIA (2016 – present)**

Tapping into the Coca-Cola ecosystem to help improve uptime and management of vaccine cold chain equipment and save lives of children in Nigeria.

## **LIBERIA (2017 – present)**

Leveraging and adapting Coca-Cola best practices in demand planning, distribution optimization, network design, and organizational development. To help build a functioning medical supply chain for the Central Medical Stores.

## **TANZANIA (2010 – present)**

Building on six years of partnership to further strengthen distribution and management of medical supply chains in Tanzania.

## **SIERRA LEONE (2017 – recently started)**

Leveraging and adapting Coca-Cola best practices in distribution and organizational development to support supply chain strengthening.

## **MOZAMBIQUE (2016 – present)**

Applying Coca-Cola best practices in route-to-market and logistics to improve distribution of medicines and health products.

## **SOUTH AFRICA (2016 – present)**

Leveraging the Coca-Cola network and route-to-market experience to help revolutionize distribution of chronic medicines for over 2 million people.

## **SWAZILAND (2016 – present)**

Leveraging and adapting Coca-Cola best practices in strategic marketing to support increased demand for health services for HIV prevention, especially focused on young women.



# Project Last Mile is an innovative Golden Triangle Partnership, bringing together public, private and civil society partners to improve the reach of critical medicines in Africa



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## PARTNERSHIP SUMMARY

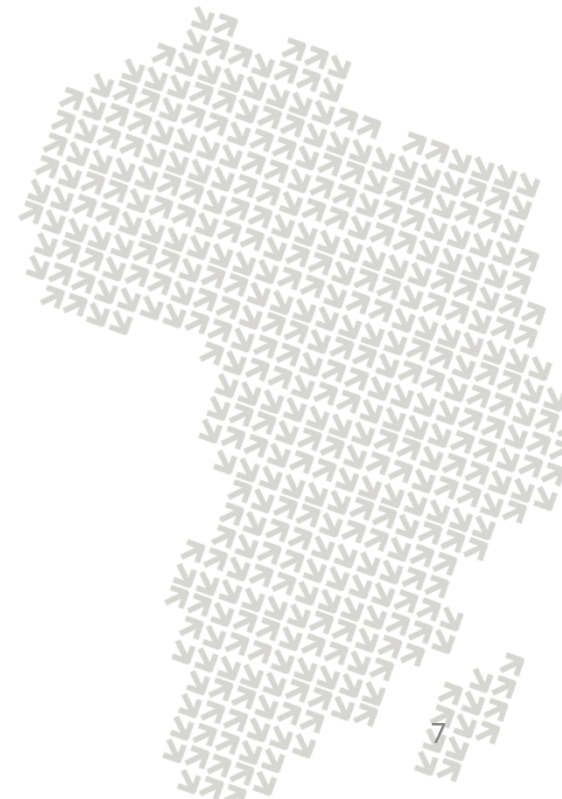
<b>Launch</b>	- Approached in 2009, Piloted 2010-2013, expansion announced June 25, 2014
<b>Core Objectives</b>	<ul style="list-style-type: none"> <li>- Improve availability of life-saving medicines and health services for people in the last mile of the health supply chain</li> <li>- Build health systems capacity in supply chain and marketing by sharing the expertise and network of the Coca-Cola system</li> <li>- Inspire broader private sector involvement through innovative cross-sector partnerships</li> </ul>
<b>Program Focus – Examples</b>	<ul style="list-style-type: none"> <li>- Logistics/Distribution</li> <li>- Marketing</li> <li>- General Business Skills</li> <li>- Talent Management</li> <li>- Cold Chain Equipment Maintenance</li> </ul>
<b>Program Goal</b>	- To improve health systems management and supply chain efficiencies in 10 African countries by 2020
<b>Progress</b>	- Programs activated in 8 out of 10 countries to date

*Just like any  
Coca-Cola product,  
life-saving medicines  
should be within reach  
of every person in Africa*



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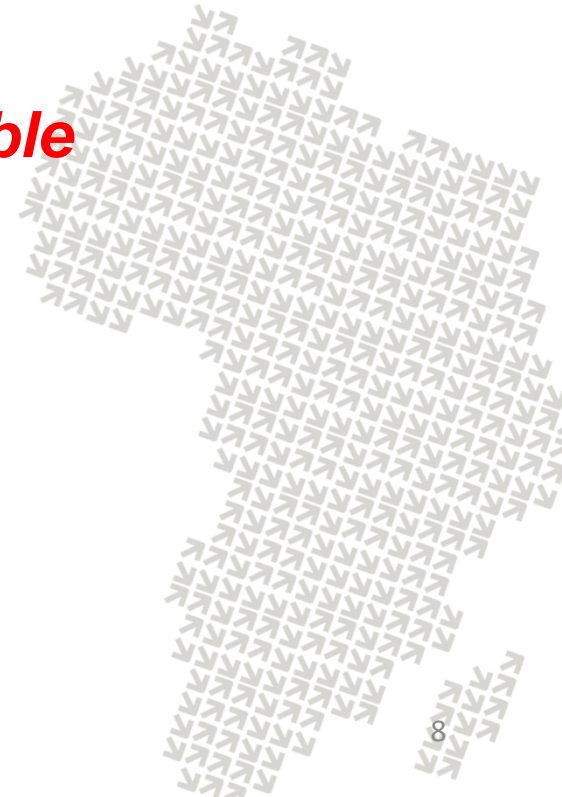
# Background of South African Health Sector



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The **changing** epidemiological profile of South Africa has led to an **over extension** of public sector health care facilities.

This has placed enormous **strain** on **available resources** and has contributed towards medicine **shortages** and **challenges** in the **quality of care provided**.

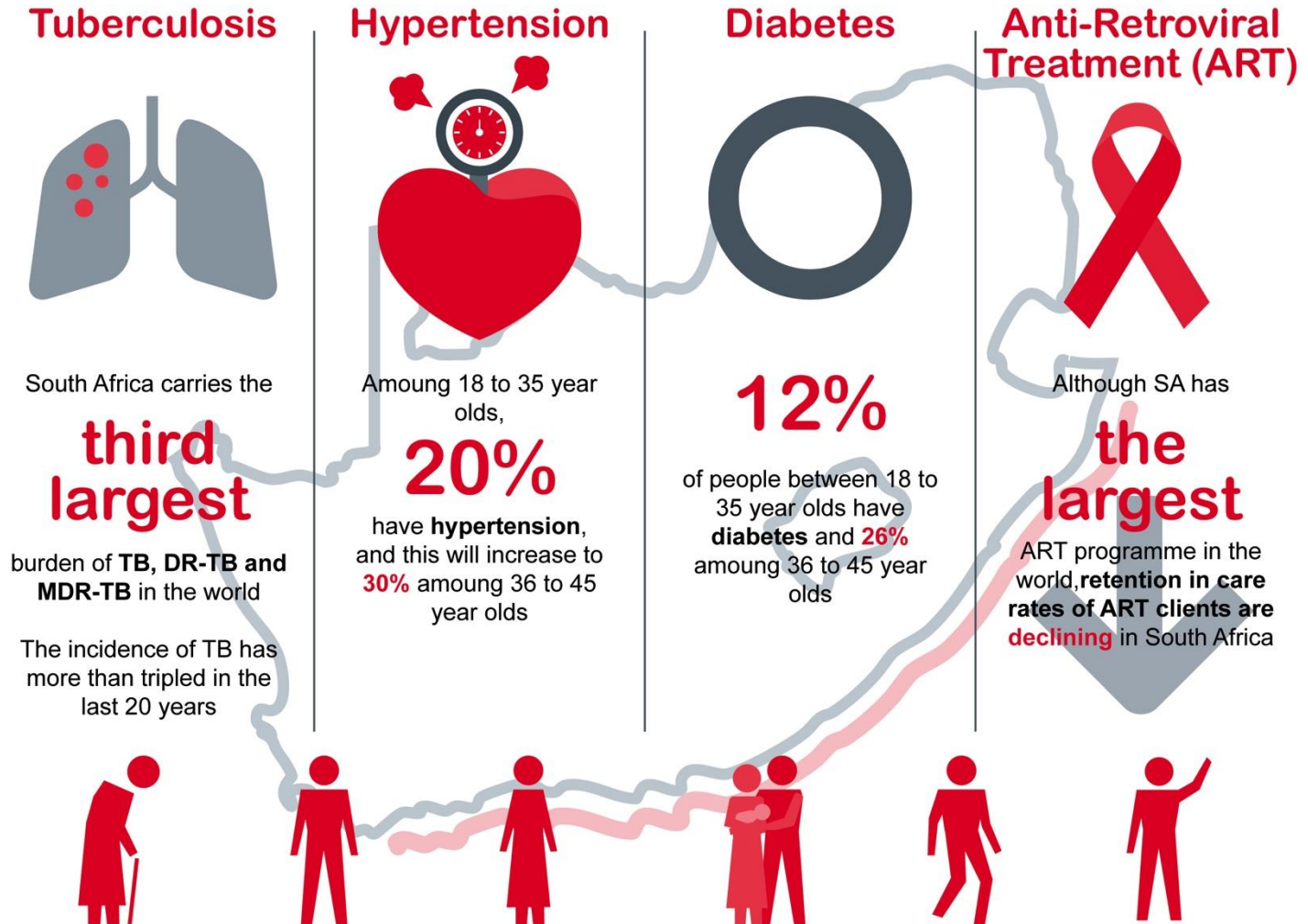




# Background of South African Health Sector



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## Current service model: risks

### **Poor patient experience, high costs for patients**

- Long travel times and distances, time off work etc.
- Overcrowded facilities with long queues

### **Overburdened facilities**

- Limited health care provider time with patients
- Administrative burden for facility staff (processing patients, dispensing, patient record management etc.)

### **Suboptimal stock management**

- Space limited for medicine storage, at facility and depot
- Stock holding results in capital being locked

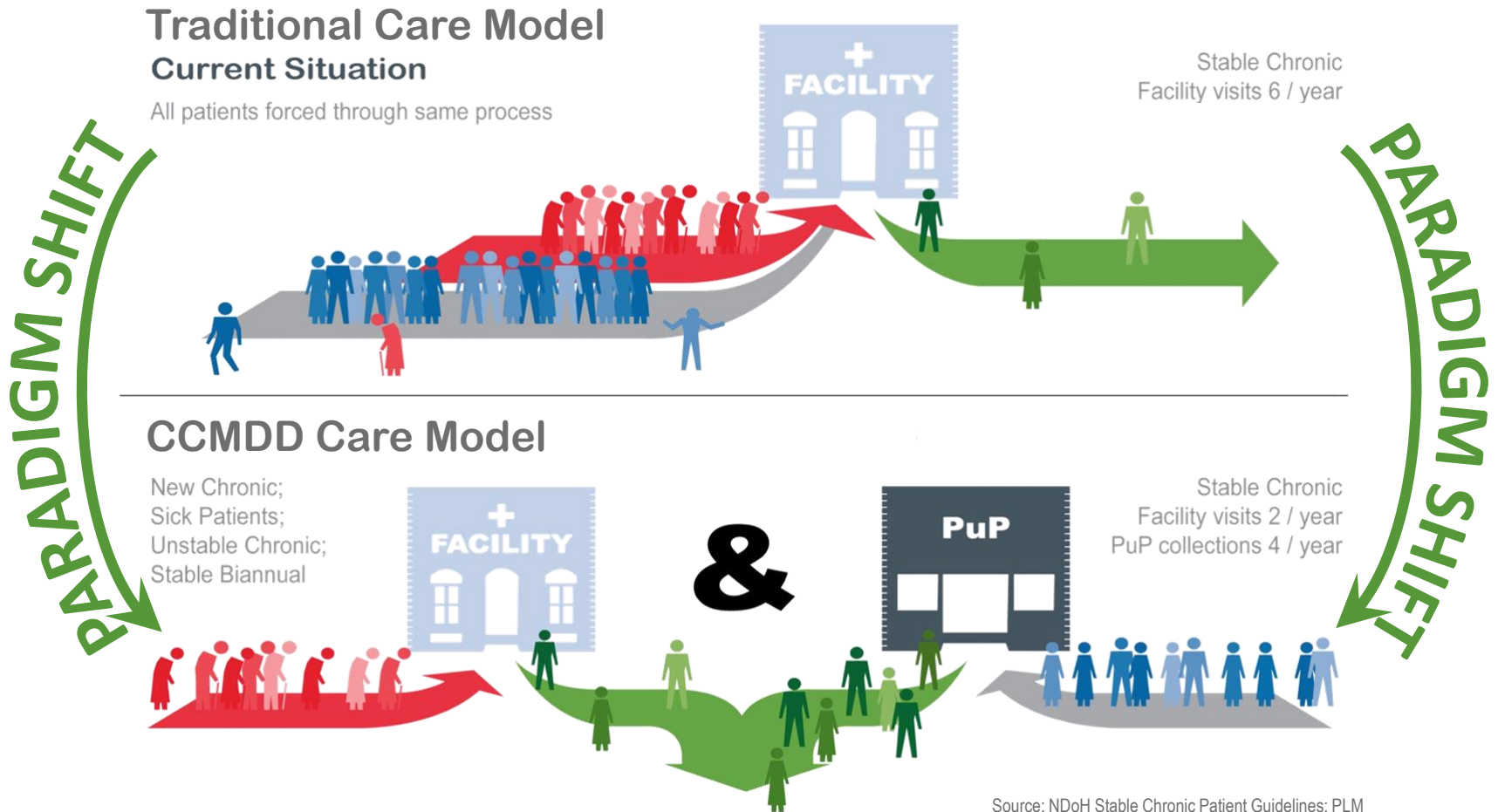
### **Irrational prescribing & poor treatment adherence**

- Limited oversight regarding prescribing in line with standard treatment guidelines
- Poor adherence due to barriers to access (above)

# CCMDD Paradigm shift to differentiated service delivery



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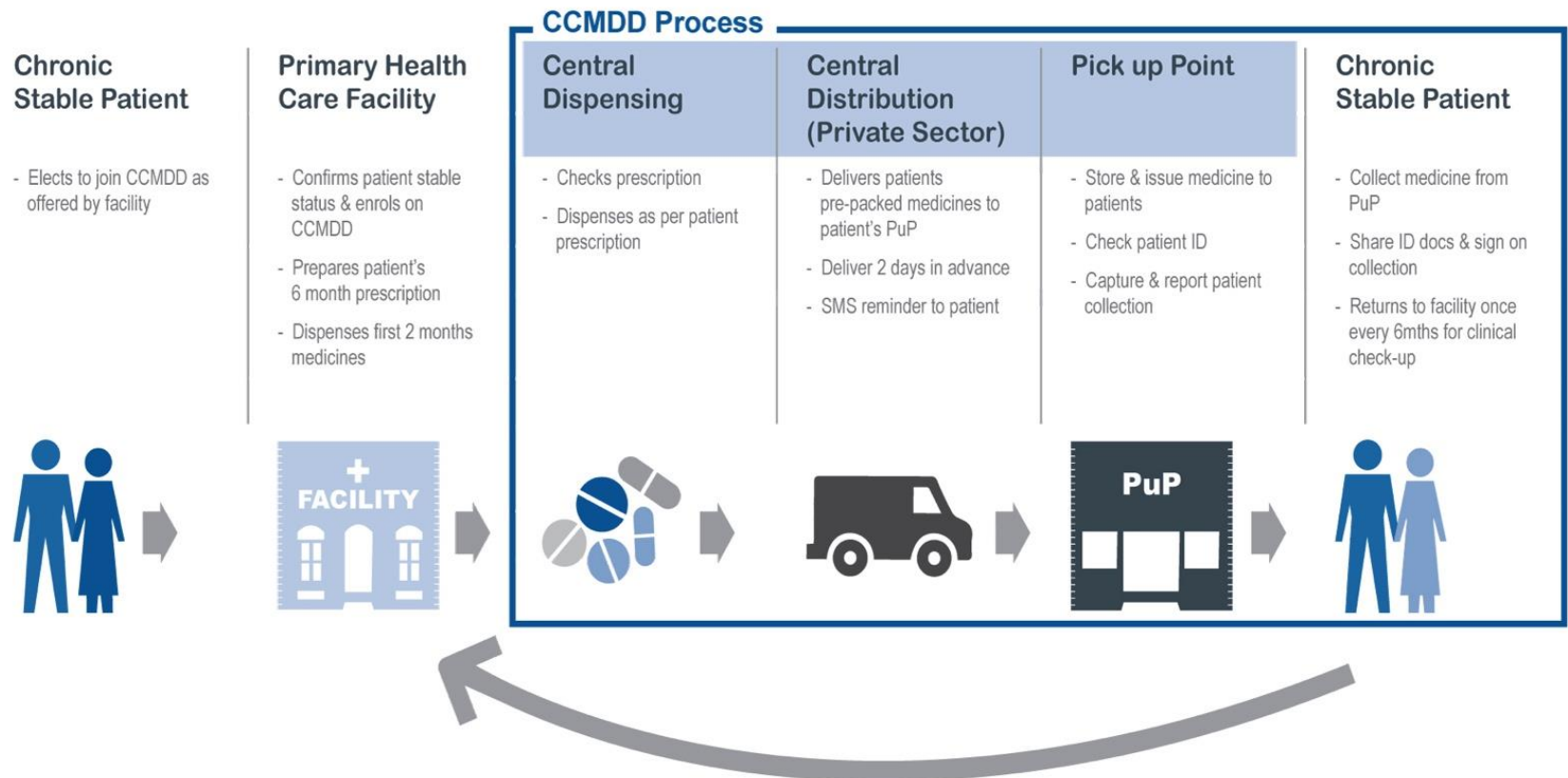
Source: NDoH Stable Chronic Patient Guidelines; PLM Team

# CCMDD offers a more efficient medicine collection platform



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**CCMDD improves patient access to medicine through central dispensing & distribution of medicines to patient convenient locations**



Source: NDoH Stable Chronic Patient Guidelines; PLM Team

# CCMDD: A better service model for stable patients

**Vehicle for achieving Universal Health Coverage, 90-90-90 and Test & Treat**

**Traditional service model** = long queues and unproductive waiting times.

**CCMDD** = no queues and short waiting times. Clinic staff get more time to focus on new patients.



## CCMDD Patient benefits

- Stable patients with chronic diseases can choose to enter the CCMDD programme
- Once enrolled, patients collect pre-dispensed medicine parcels from Pick-up-Points (PuPs)
- These PuPs are either external (e.g. private sector service providers such as Clicks, Medirite etc.), or 'internal' such as fast-track lanes, adherence clubs etc.
- They return to their home health facility twice a year for repeat script and check up.

**More than 2 million  
Patients Enrolled  
(March 2018)**



# CCMDD Benefits



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➤ **Improved patient experience and access to treatment**

➤ **43% savings for patients**

saving patients R1.2bn in 2020



➤ **22% Improvement in patient adherence**

avoiding NDoH up to R3.1bn of costs in 2020



+



➤ **2.5m - 3.3m Additional patient capacity**

33 - 43% increase in PHC capacity by March 2021 with 5.5 million CCMDD patients

➤ **50% Reduction in NDoH cost to treat patients**

NDoH facility visit & medicine supply chain costs (excluding medicines),  
NDoH efficiency gains of up to R4.1bn in 2020

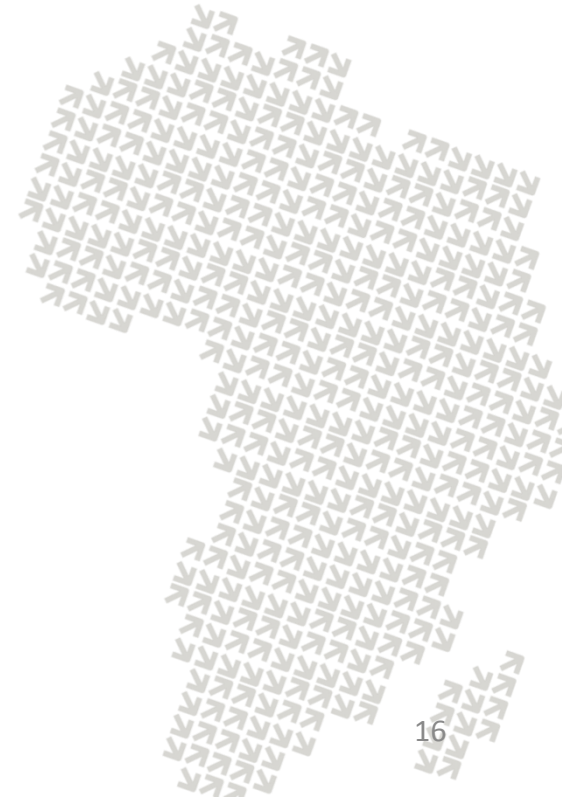


**Supports 90Ninety90**

In 2020, 4.9m of 5.9m TROA patients enrolled on CCMDD

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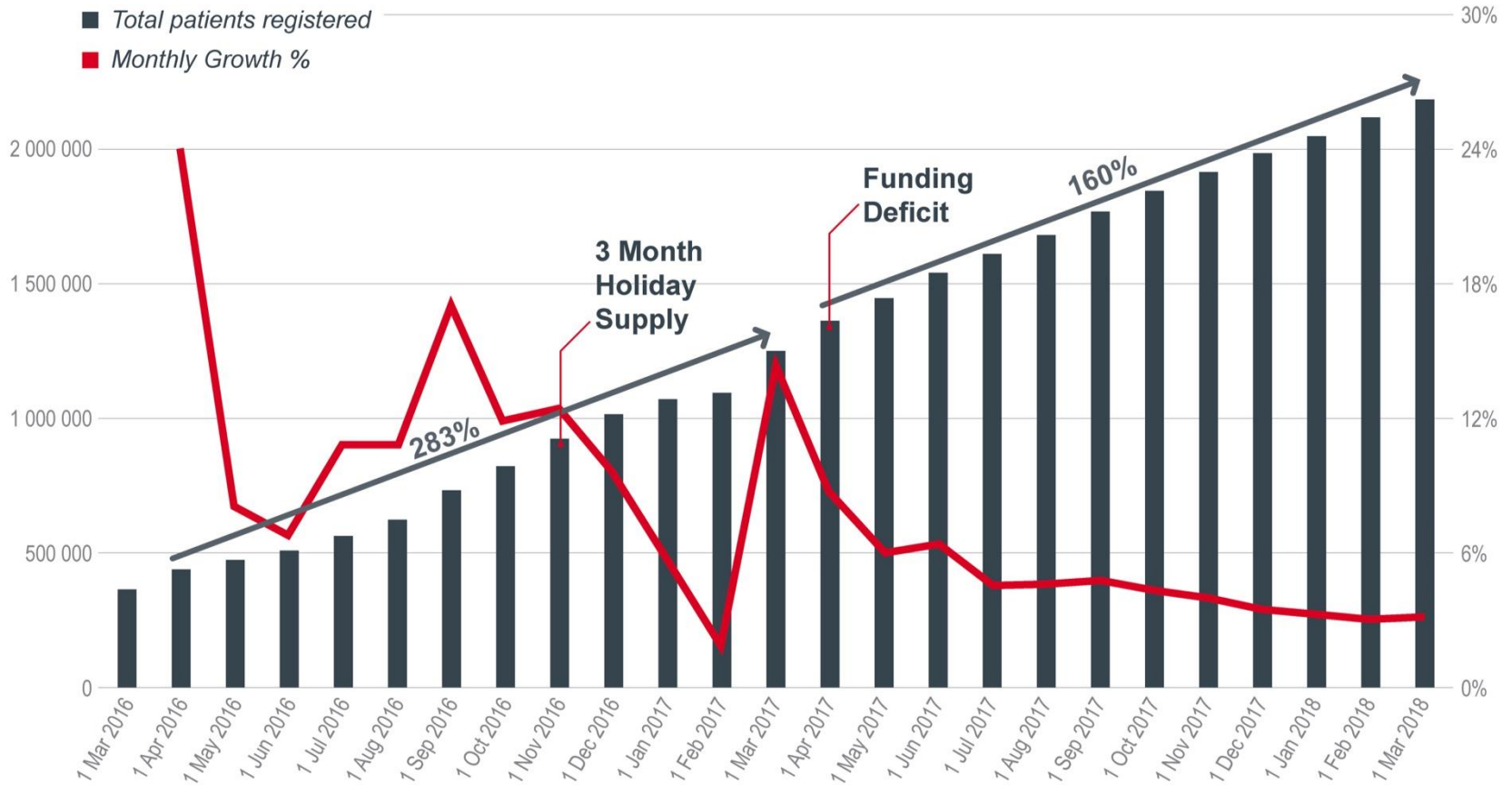




# CCMDD Registered Patients Growth



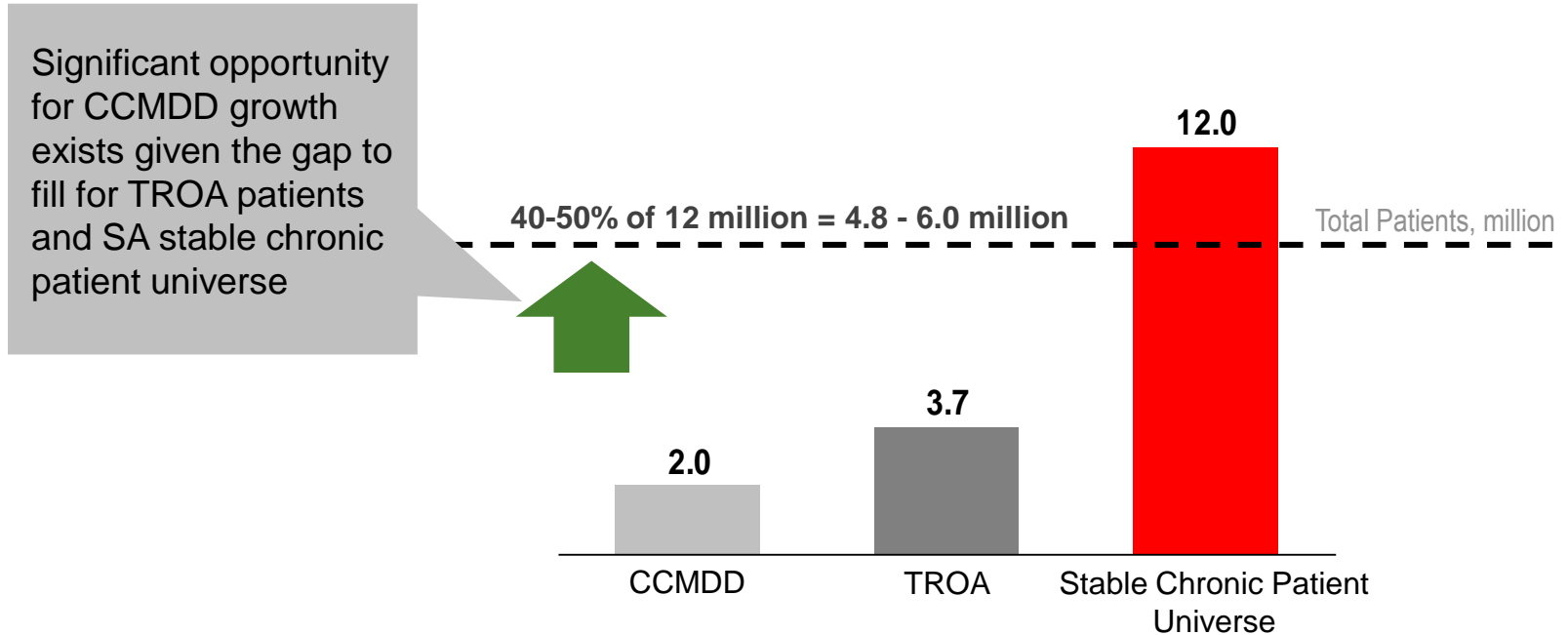
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# South African Patient Universe



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## Large opportunity for CCMDD growth:

- In 2017 17% of stable chronic universe served on CCMDD & March 2021 Proposed Target is 43%
- In 2017 50% of TROA patients are on CCMDD

\* 2017 Stable Chronic Patient Universe **12m** calc: **HIV 5.1m** = [7.06m x 72% stable]; **Hypertension 5.5m** = [Prevalence (28.8%) x SA Pop. of >15yrs (38m) 11m x 50% Stable]; **Diabetes 1.1m** = [Prevalence (7.0%) x SA Population >20yrs (32m) x 50% Stable]. Epilepsy & Asthma <5% of total chronic patients, hence ignored to ensure chronic stable patient universe not over-estimated  
Source: Stats SA Aug 2017 Release P0302; HST SAHR 2017; NIDS 2015; HST weekly CCMDD tracker 19/01/2018.



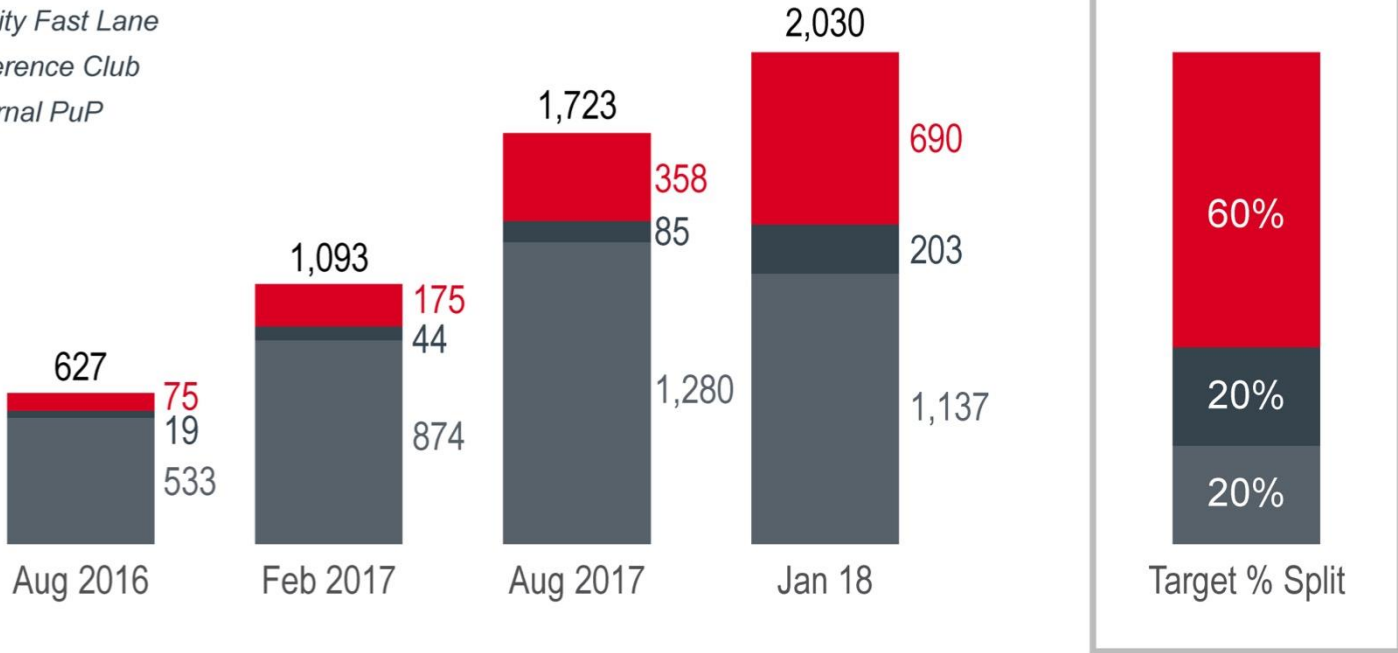
# CCMDD Patients by collection location

There are a growing number of CCMDD patients collecting at external locations

Percentage of Registered CCMDD Patients per collection point

Number of Registered CCMDD Patients (thousands)

- Facility Fast Lane
- Adherence Club
- External PuP



Source: HST weekly CCMDD tracker 19 January 2018; NDoH Guidance; PLM Team

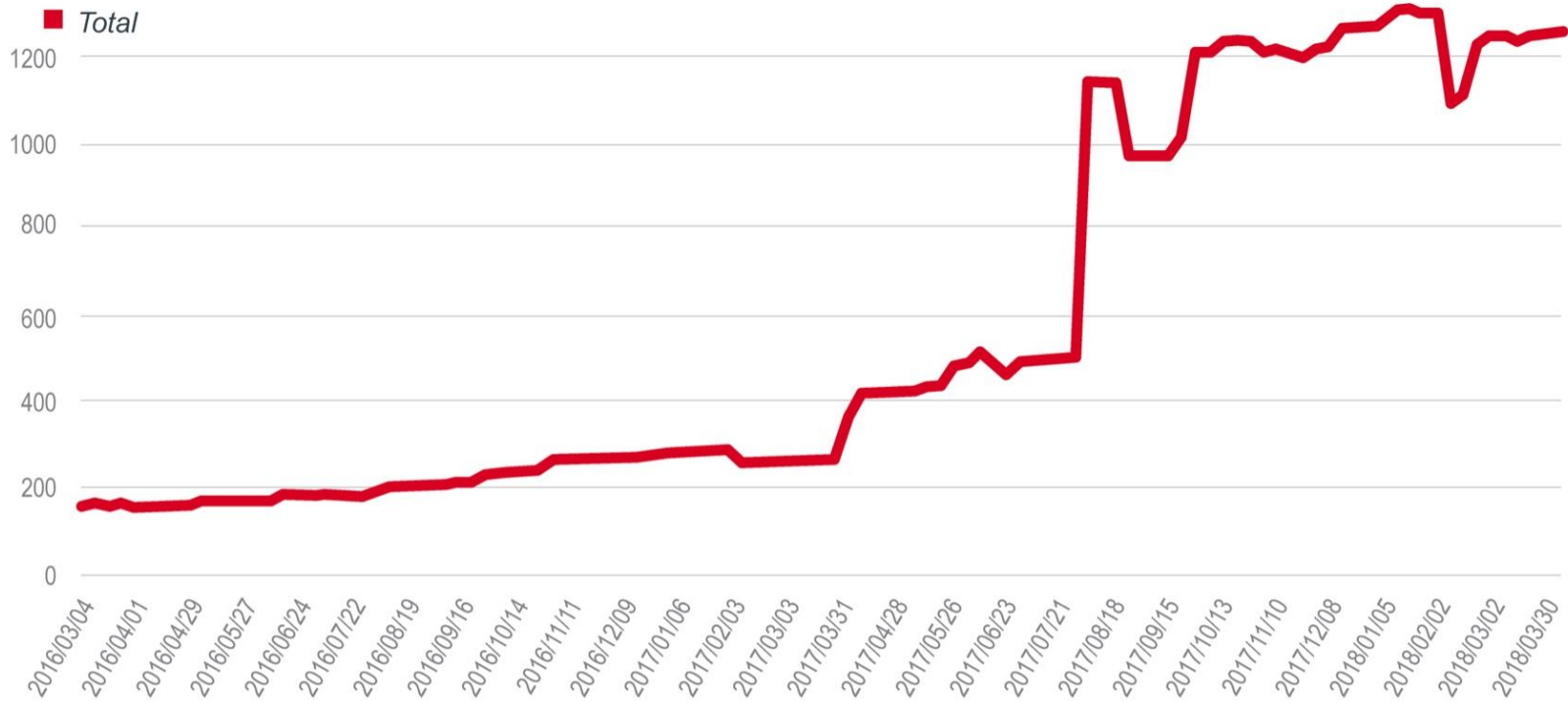
# Growth of external PuPs (2016 – 2018)



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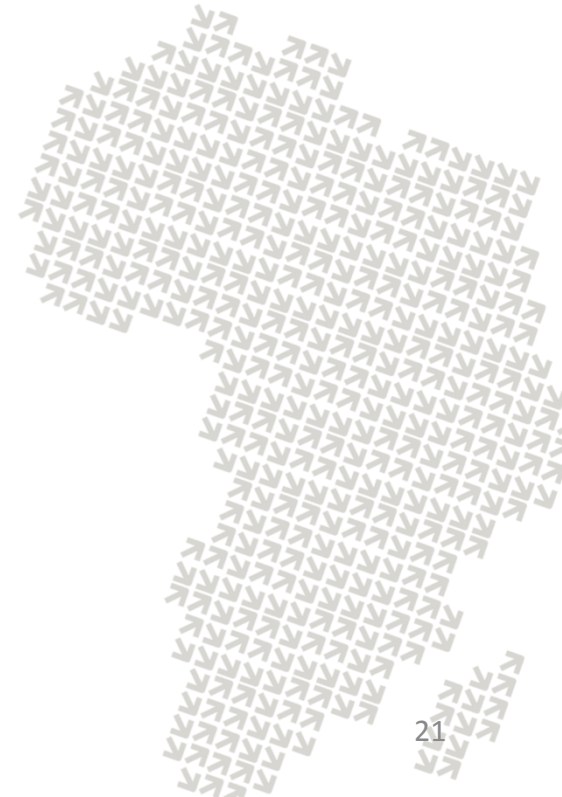
**External PuPs have grown consistently and rapidly over the CCMDD term from April 2016 - March 2018**

Excludes 1512 contracted Post Offices



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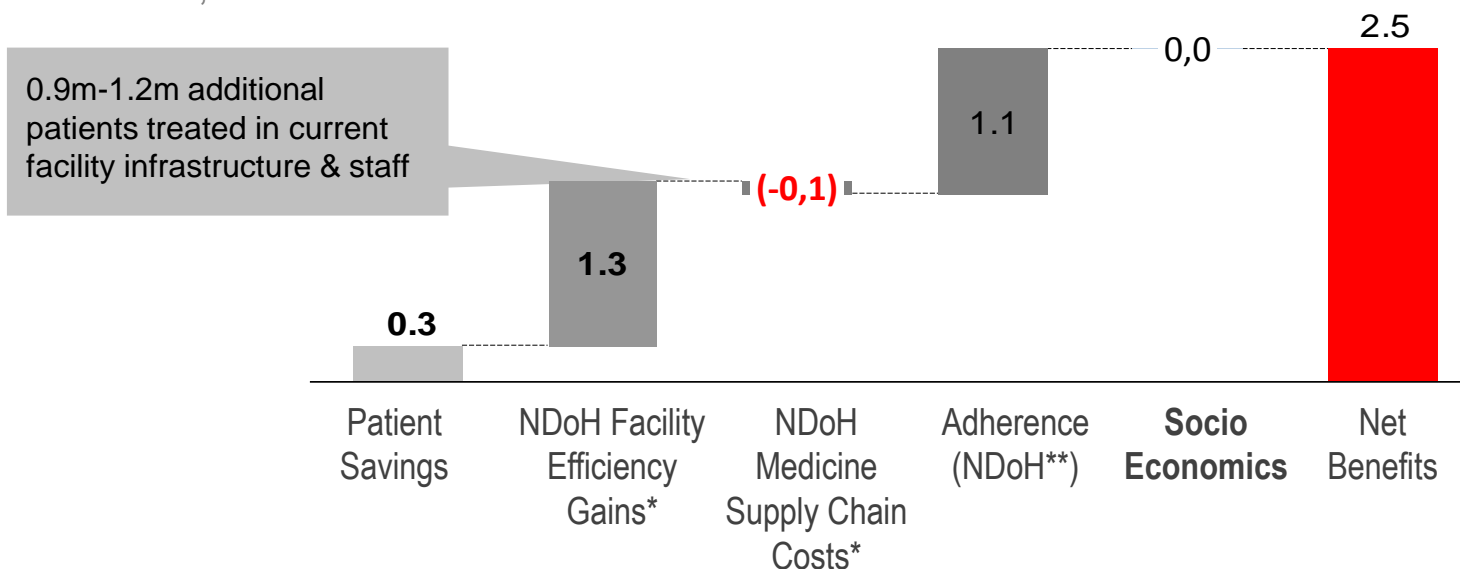




# Value generated from CCMDD benefits (2017/18)

## CCMDD delivers significant benefits for patients and NDoH

Rand Billion, 2017



### In 2017, CCMDD delivers:

- 43% Patient cost reduction
- 12-16% Increase in PHC facility capacity
- 48% decrease in NDoH cost to serve patients

Note: Indicative figures for 2mln CCMDD patients in 2017; Target CCMDD ratio by Patients by PuP Type.

\* Public Health Sector (NDoH) net value available to be repurposed: R1.5bn (includes R0.5bn Fees Paid to Service Providers & External PuPs:

\*\*Public Health Sector (NDoH) cost avoidance: R1.1bn

Source: NDoH Actuals 2017; Available research; PLM Team

# CCMDD Business Case



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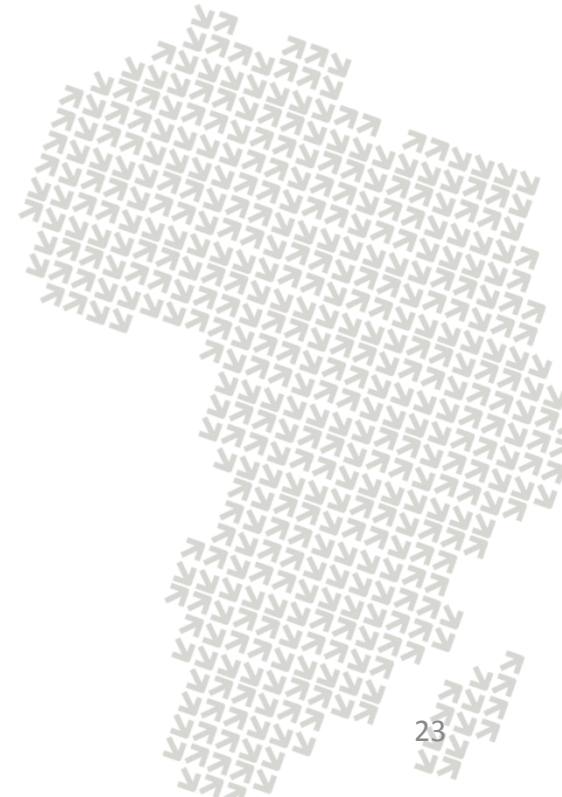
## Patient Improved Experience & Cost Savings

### NDoH

- Increased Facility Capacity (Decongestion)
- Facility Efficiency Gains
- Increase in Medicine Supply Chain Cost
- Increased Adherence

## Community Benefits

## Summary of Total Benefits

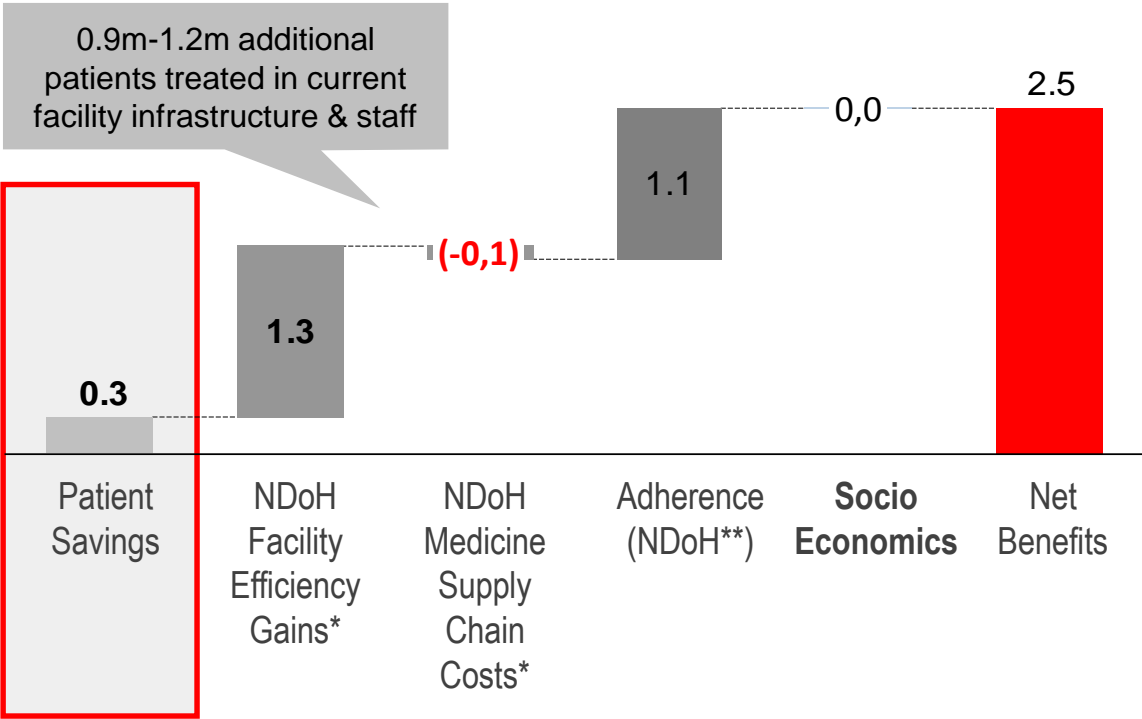




# Business Case: Patient Savings

## Annual CCMD Net Benefit to Patients & Public Health Sector for 2017/18

Rand Billion, 2017



Note: Indicative figures for 2mln CCMD patients in 2017; Target CCMD ratio by Patients by PuP Type.  
\* Public Health Sector (NDoH) value available to be repurposed: R1.5bn  
\*\*Public Health Sector (NDoH) cost avoidance: R1.1bn  
Source: NDoH Actuals 2017; Available research; PLM Team



# Patient benefit methodology



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## Evaluate costs that patients incur:

- On CCMDD program
- Not on CCMDD program

## Type of patient costs to evaluate:

- Transport costs
- Loss of income
- Substitute labour

Source: PLM Team; NDoH Guidance



# Business Case: Patient Savings

## Chronic Stable Patient Inputs

2017

### No. of PHC facility visits per patient per year

- Non-CCMDD, SFLA, AC: 6
- External PuP: 2

### Patient cost per visit to PHC facility

- R54.94\*

**2 Million CCMDD patients**

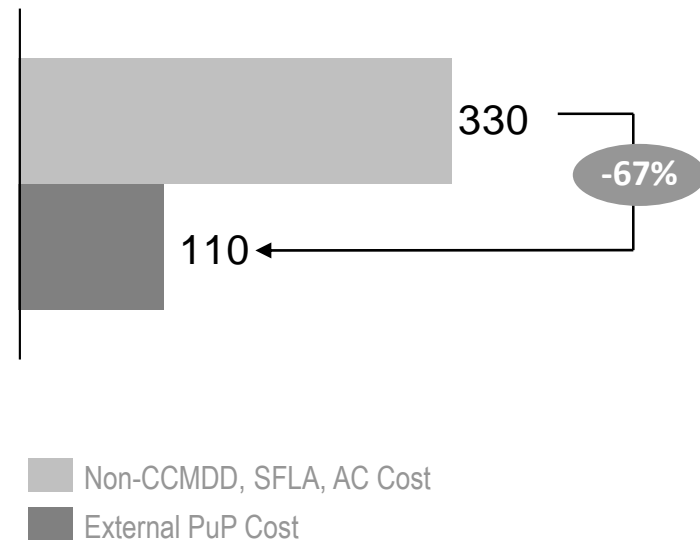
**60% at External PuP = 1,2 Million Patients**

**1,2M x R54,94 x 4 visits saved**

**R0,26bn saved by Patients**

## Annual Patient Cost to Visit a Facility

2017, Rand per year per patient



**67% reduction in a patient cost to collect medicine at external PuPs per year**

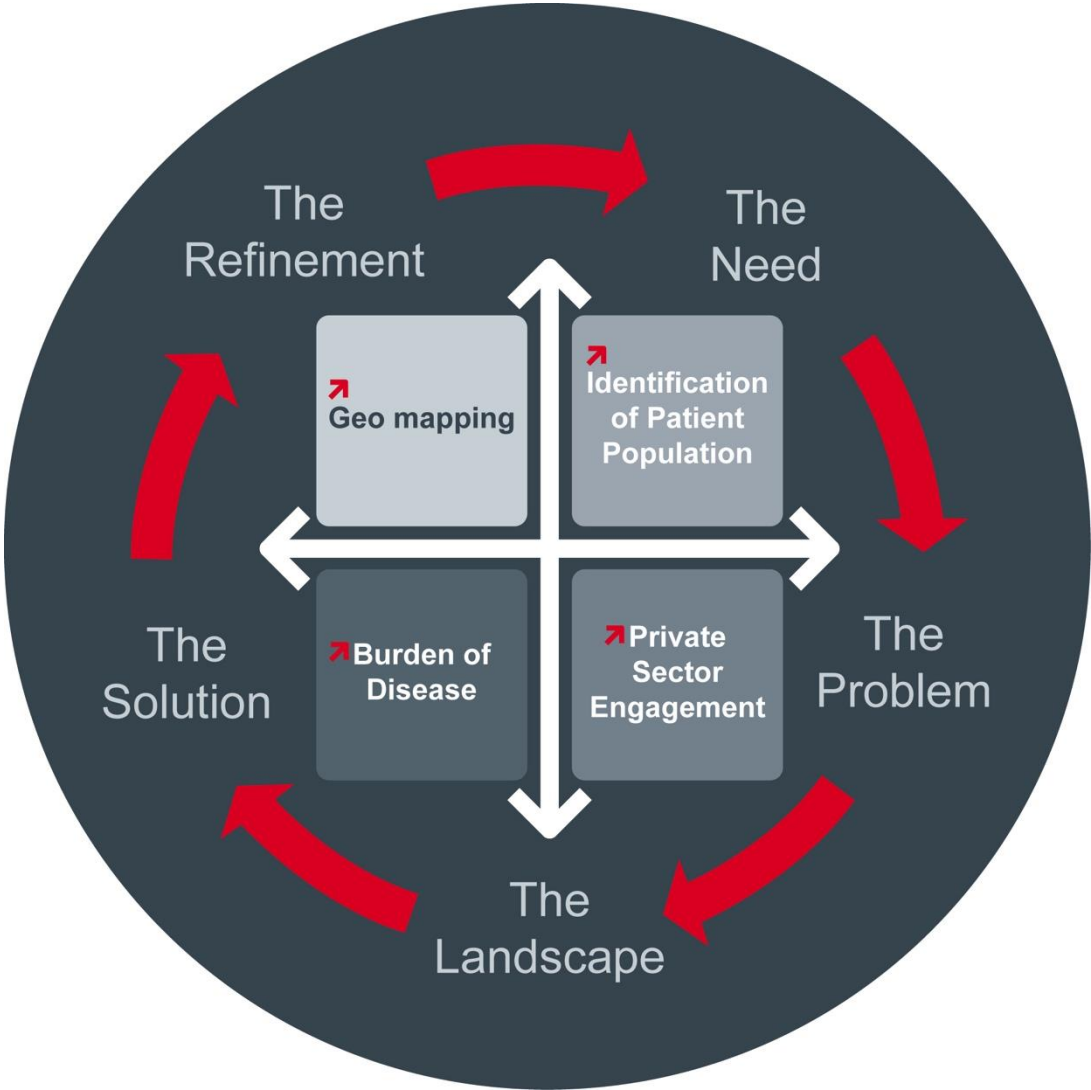
**Patient Savings R0.26bn in 2017**

\*2005 & 2007 costs inflated to 2017 based on CPI; Average: Urban, Prei-Urban, Rural used as proxy for all patients  
Source: Rosen, Kethlhapie & De Silva 2005; Rosen, Kethlhapie Sanne & De Silva 2007; PLM Team; Stats SA Aug 2017

# Replicable sustainable solution

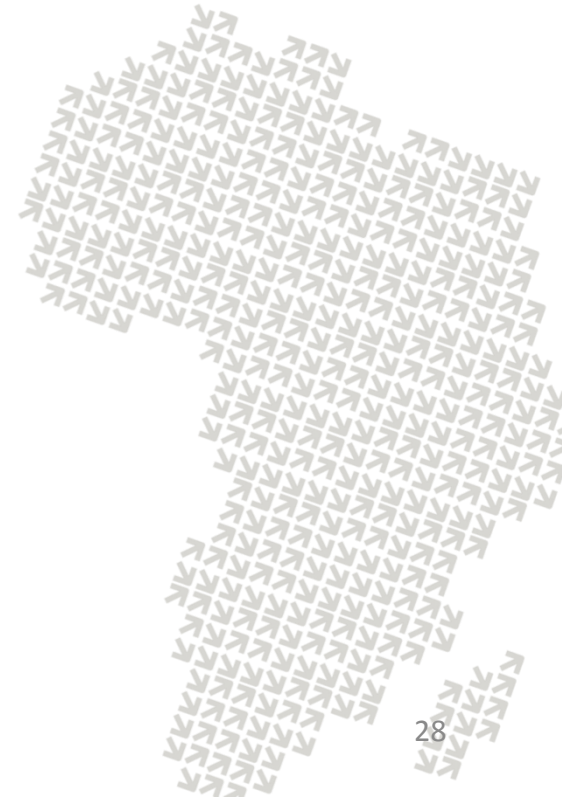


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# Recommendation

## **Accelerate CCMDD roll-out due to:**

- Massive positive impact
- Support to achieve 90-90-90 targets in 2020

## **Encourage existing CCMDD patients collecting at Facilities to shift to External PuP & Adherence Clubs**

## **Ensure a CCMDD District Support Partner is in place in every District to assist with implementation**

Source: NDoH Guidance; PLM team





## Next steps

### **Develop communication plan to share positive impact CCMDD has for patients & NDoH**

- DoH various levels & all stakeholders

### **Proactively engage & align on:**

- CCMDD Benefits
- Targets: including contribution to other programs: e.g. 90-90-90
- Budgeting & re-allocation of funds to enable CCMDD roll out
- Overlap with other programs (e.g., CCMDD patient data for 90-90-90)

### **Develop CCMDD implementation plan with right structures in place at National, Provincial & District level**

- Functional
- Top management support

### **Create list (check box) of support / input required from various audiences to set up implementation for success**

# Thank You



**HIV LEARNING NETWORK**  
**The CQUIN Project for Differentiated Service Delivery**

