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HCV Self-Testing as a gateway to identification among KP with no previous HCV screening experience in Johannesburg, South Africa

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Innovation in Global Health

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Partenaire de psi

Acknowledgements

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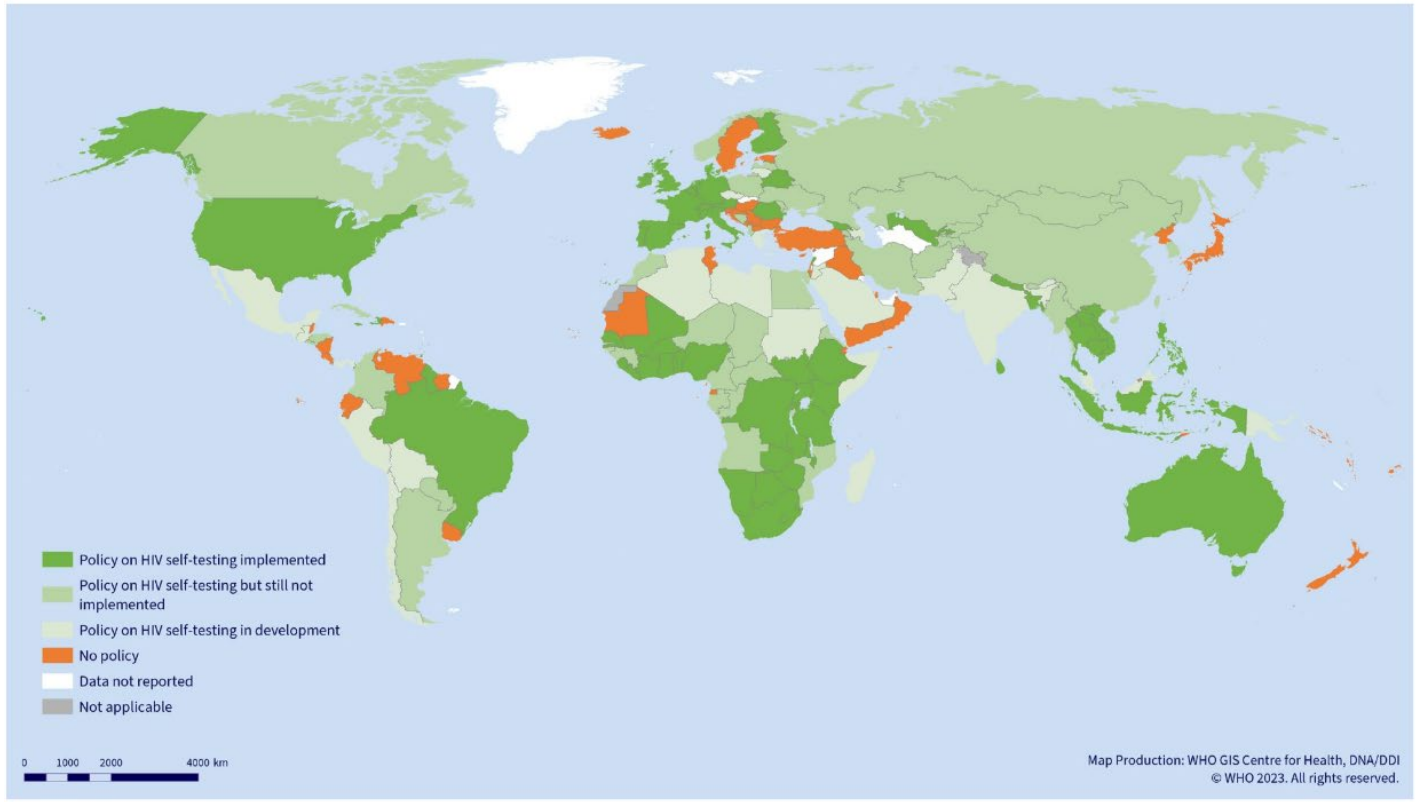
- UNITAID
- PSI – Dr Karin Hatzold and team
- ANOVA Health – Dr Nomfundo Nhlapo, Dr A Manyuchi and team
- Ezintsha – Vanessa Msolomba and team

Taking the lead from HIV Self testing



Sources: Global AIDS Monitoring (UNAIDS/WHO/UNICEF) and WHO Department of Global HIV, Hepatitis and Sexually Transmitted Infections Programmes, 2023.

In 2017, the WHO provided the first recommendation for self-testing.

By end of 2023, 104 countries with national policies supportive of HIV self-testing and 63 of them were routinely implementing.

Several countries have products registered

Another 28 countries are in the process of developing policies.

Much of this is owed to the success of the UNITAID funded STAR programme which provided valuable lessons.

Unitaid

Unearthing a potential crisis!

- In 2019, as part of a FIND funded evaluation programme for WHO Pre Qualification, Ezintsha were conducting assessments on 2 candidate devices – Orasure and PMC. SA → Low Prevalence country.
- Issues arose with recruitment in the high prevalence settings in Spain, and lesser extent in Georgia. 100 participants needed
- Ezintsha were asked to assist. Approached ANOVA to recruit from their KP programme to make up the numbers.
- 81% positivity on Ab test!!!
- This made us sit up with concern.

Study context

National Hepatitis C (HCV) disease burden, with estimated **population prevalence** of **0.1% to 0.7%** - around **400,000 people.**

HCV rates **may be significantly higher** among groups at risk - **people who inject drugs** and **people who use drugs** - but **data is limited – published data puts it 30 – 40%**.

Leveraging the success of **HIV self-testing** reaching individuals missed by conventional testing methods,

Implementing **HCV self-testing** in **Johannesburg** amongst populations at risk

Study sites in Johannesburg

- Facility-based direct distribution
- Community based direct distribution including through Harm Reduction Needle and Syringe outreach programs

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Study objectives

Primary objective:

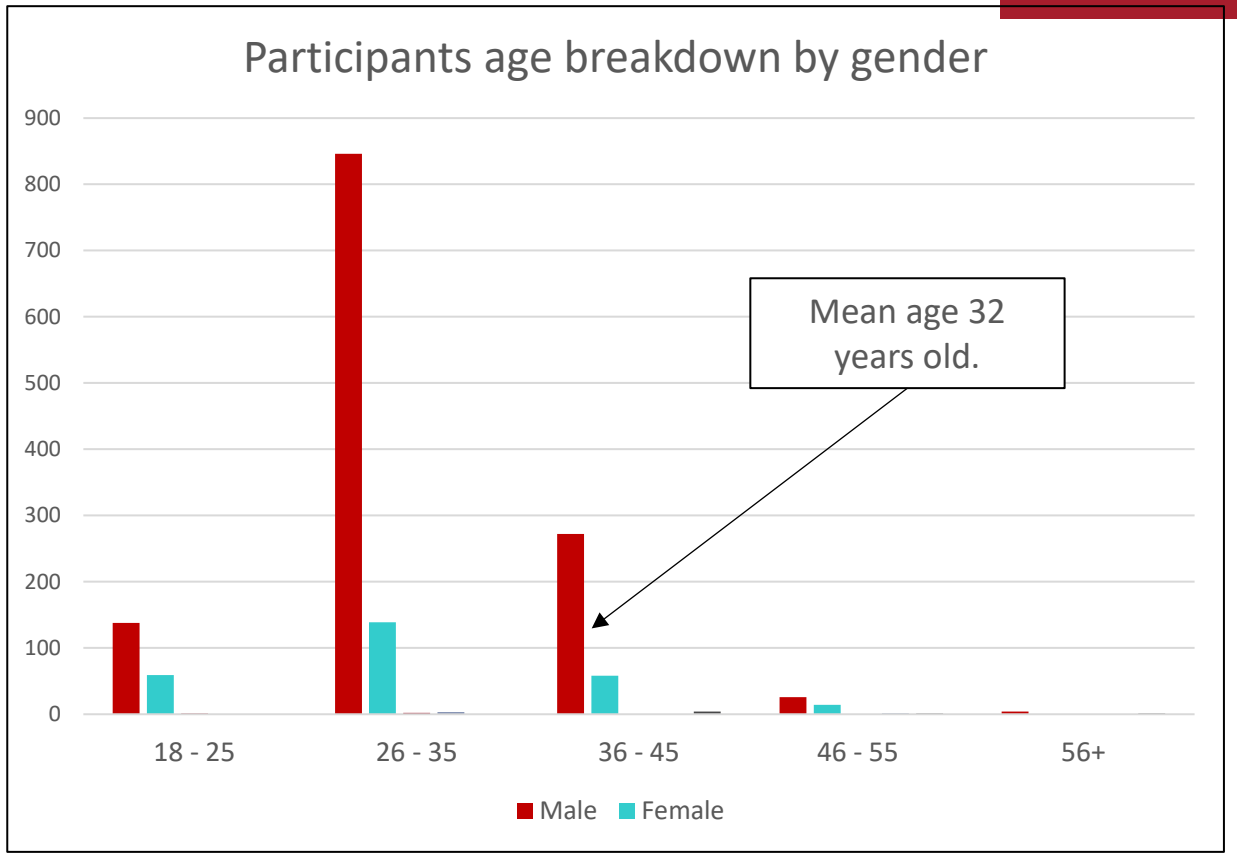
- To measure the **effectiveness** of HCVST in HCV testing **uptake, linkage to confirmatory testing, diagnosis and treatment** among KPs in Johannesburg.

Secondary objectives:

- To assess participant's **adherence** to recommended Hepatitis C treatment and completion of regimen.
- To evaluate the **lay users'** interaction with the device in terms of **effectiveness and efficiency**, i.e. successful / unsuccessful completion and difficulty of the critical steps as per the Instructions for Use in on site testing modalities

Study population demographics

TOTAL	N=1567
SEX	
Female	270, (17.2%)
Male	**1285, (82%)**
Transgender men	4, (0.25%)
Transgender women	3, (0.2%)
Other	5, (0.3%)
POPULATION TYPE	
PWID	**1208, (77.1%)**
PWUD	160, (10.2%)
MSM	56, (3.6%)
SW	143, (9.1%)
EDUCATION LEVEL	
≤Grade 7 primary schooling leve	44, (2.8%)
≥Grade 8 primary schooling to High School	**1354, (86.4%)**
≥Post High School Institution, University and beyond	169, (10.8%)
SELF-TEST RESULT (TRAINED OBSERVER)	
Positive	**998, (63.7%)**
Negative	568, 36.2%
SELF-TEST TYPE	
Oral	689, (44.0%)
Blood	878, (56%)



Only 2% of participants (30/1567) had ever tested for HCV

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998 reactive results, representing reactivity of **63.7% overall**

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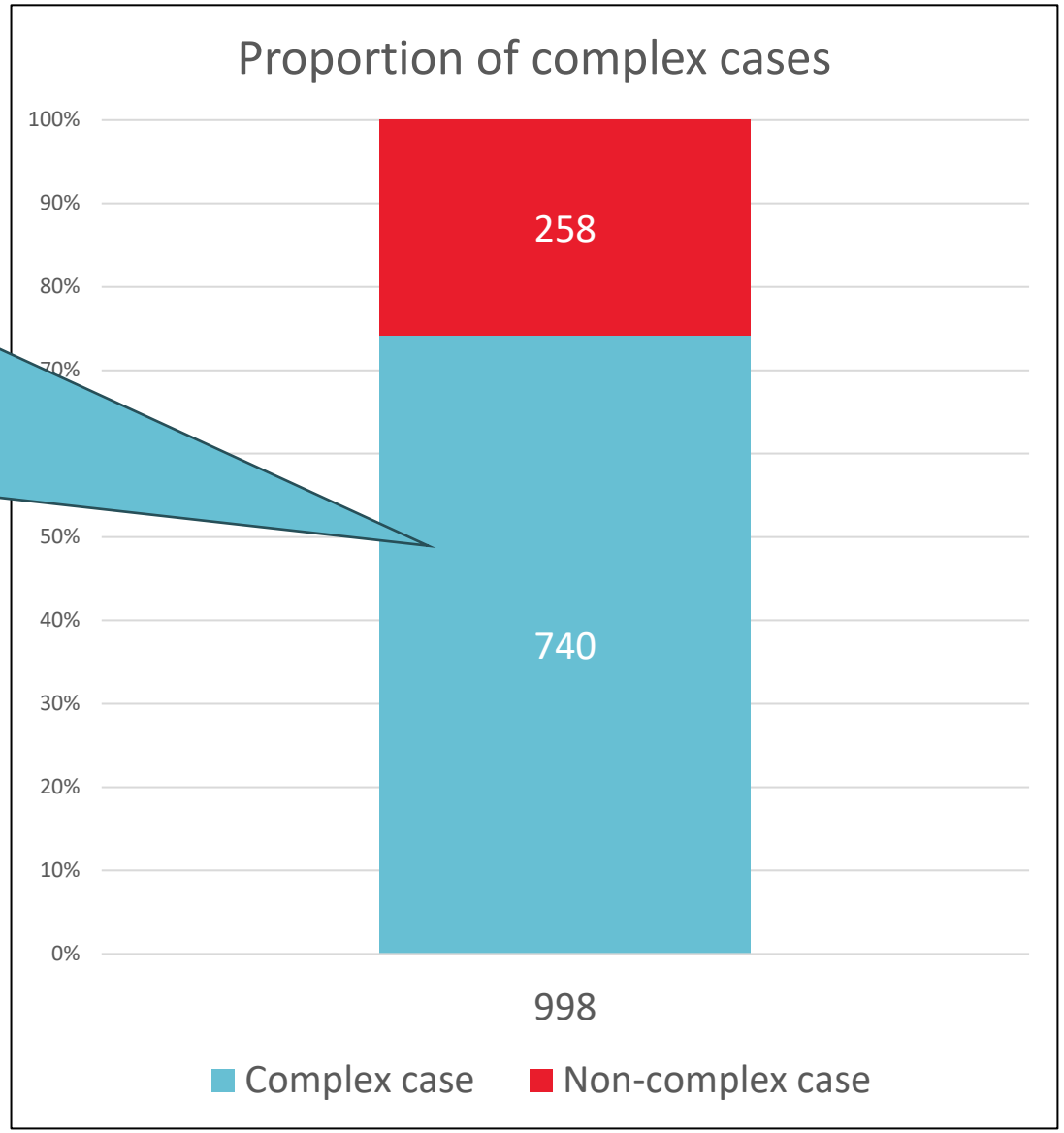
Case severity

Of **998 reactive results**, **740** were **co-infected** with **Hepatitis B** or **HIV**, or had **early** or **advanced liver disease** as indicated through high APRI scores.



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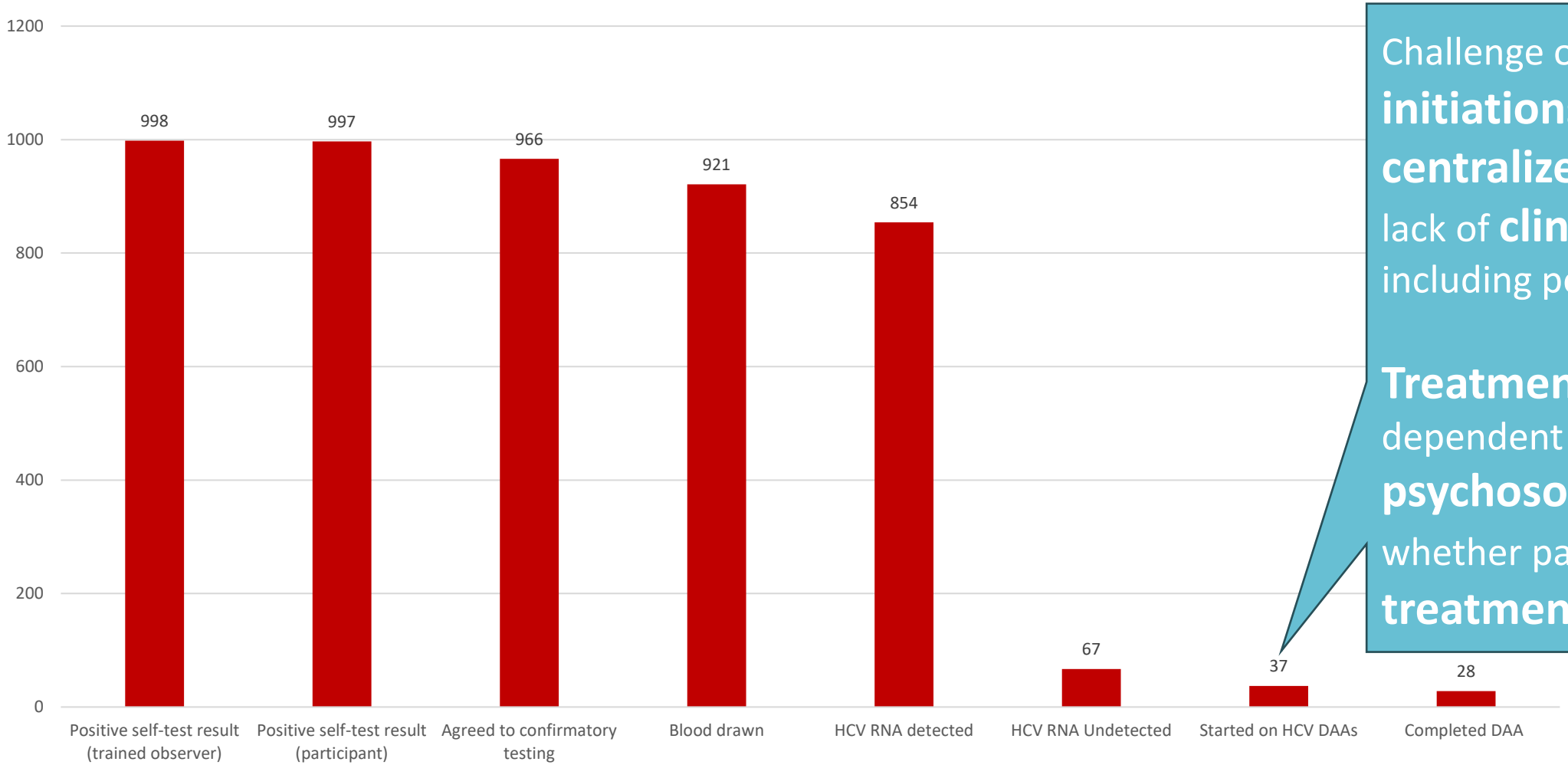
Testing outcomes and linkage to care



Challenge of **DAA initiations** because **centralized initiations**, lack of **clinical resources** including personnel.

Treatment completion dependent on provision of **psychosocial support** and whether patient is on **Opioid treatment**.

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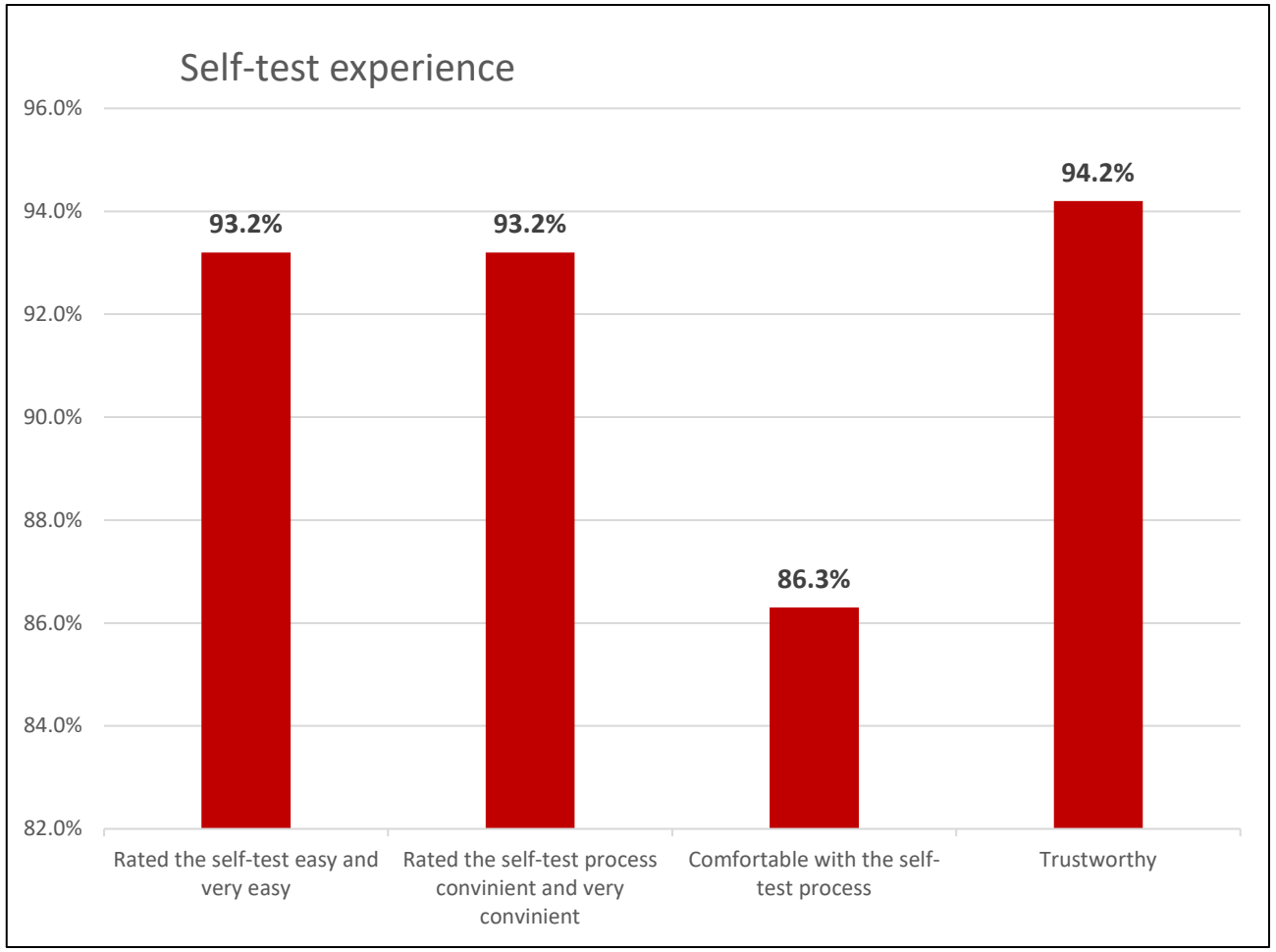
Usability and performance



HCV Self-Test (Participant)	HCV Self-Test (Trained Observer)			
	Positive	Negative	Invalid/other	Total
Positive	996	1		997
Negative	1	567		568
Invalid/Other	1		1	2
Total	998	568	1	1567
Positive Percent Agreement (PPA)			99.8%	
Negative Percent Agreement (NPA)			99.8%	

Self-tests rated as **highly usable. Lay-user accuracy** as good as **professional** administered.

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Lessons learned

The prevalence of HCV in PWID/PWUD in Johannesburg was very high

Access to HCV screening is absent in the public health sector - in view of this prevalence there is a significant public health challenge in the country

Centralised DAA initiation limits the number of patients who can be initiated. Doctor centred DAA initiation also limits numbers.

Most of this was active HCV, with high transmission risks - especially in the absence of widespread harm reduction programmes

The cost of HCV confirmatory testing remains unaffordable for the numbers that need this test - further limiting access to treatment

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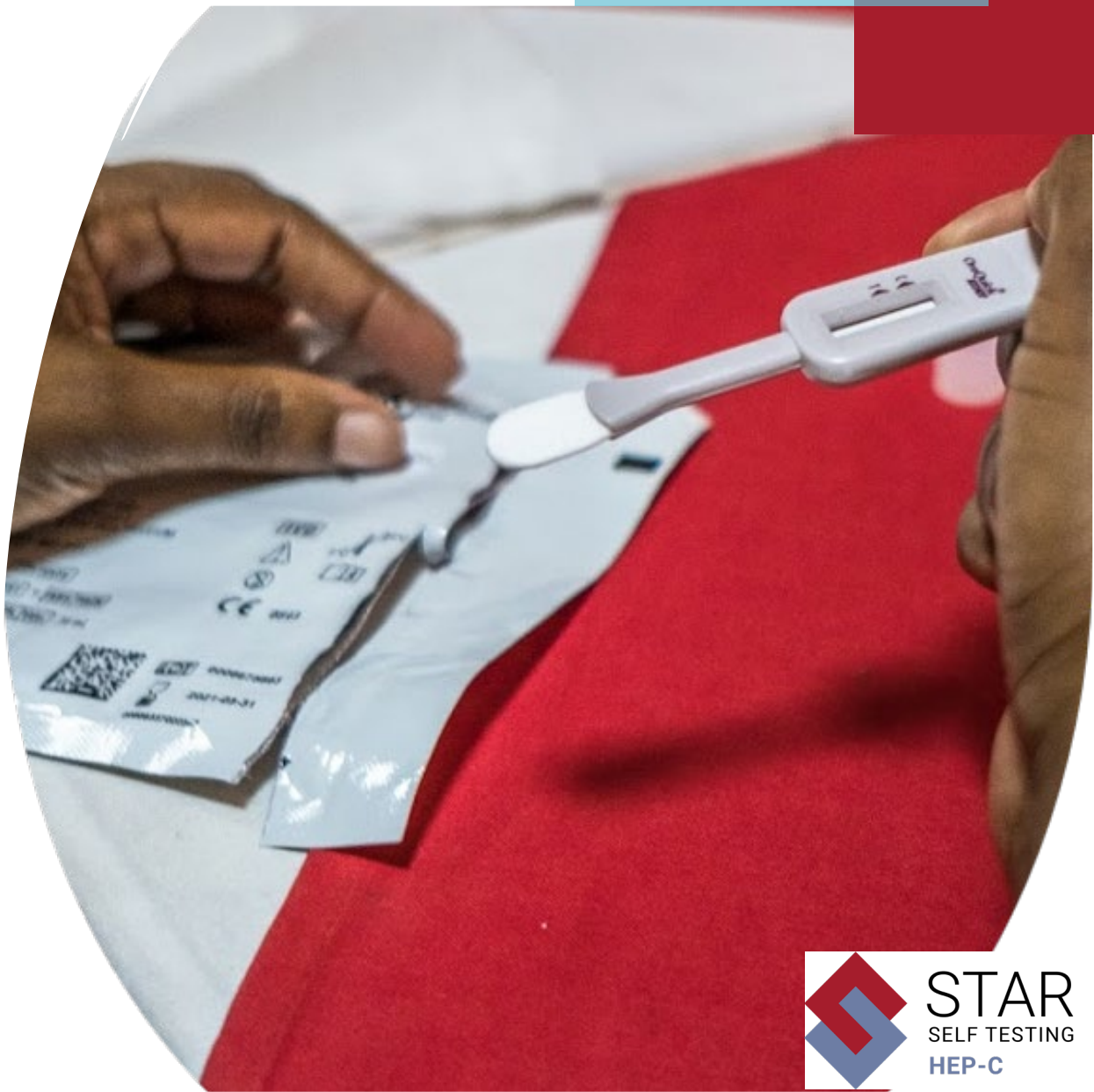
Recommendations

1. Expand Screening Accessibility
2. Implement Linkage to Care Strategies
3. Provide On-site POC PCR and Treatment Services
4. Integrate HCVST with Other Services – especially opioid substitution therapy (OST), needle exchange programs, and HIV testing.
5. Develop Targeted community led Communication campaigns



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