

COMMUNITY BASED | YANGON, MYANMAR

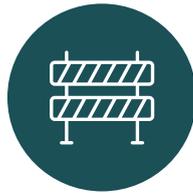
# A GP-LED ONE-STOP-SHOP FOR HEPATITIS C CARE

Myanmar's national guidelines permit general practitioners (GPs) to treat hepatitis C virus (HCV) in community-based settings, but there are few examples of this. We wanted to show that it could be done effectively, so we established a one-stop-shop model of care for HCV led by GPs, providing testing, treatment and a needle and syringe programme (NSP) on-site.

## WHY DID WE ESTABLISH THIS MODEL?



People who inject drugs (PWID) in Myanmar have a high burden of HCV and unmet need for needle and syringe services.



Access to HCV treatment is limited to hospital sites, research projects, and some non-government organization clinics.

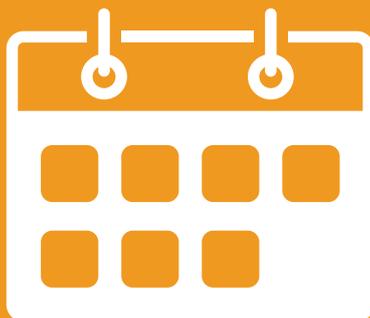


We wanted to demonstrate that it was possible for GPs to treat HCV in a community setting alongside harm reduction services.



Our model is a one-stop-shop for HCV testing and treatment, and NSP services.

## WHO ACCESSES OUR SERVICE?



**100** NSP CLIENTS  
PER WEEK



**50** HCV CLIENTS  
PER WEEK

- People who use drugs
- People receiving OAT/OST\*

\*OAT/OST: opioid agonist therapy/opioid substitution therapy

# WHAT IS THE MODEL?



## RECRUITMENT

At Clinic A, our outreach peer workers invite people who inject drugs to attend the clinic for scheduled appointments. At Clinic B, clients are invited from a waiting list for upcoming no-cost treatment programmes.



## APPOINTMENTS

At Clinic A, clients were recruited from the local methadone centre and other areas where our peer workers distribute needles and syringes. Our peer workers helped clients to register and book appointments.



## TESTING

In the first visit, we conduct a rapid test for HCV antibodies. If the client has HCV antibodies, we conduct an RNA test using the GeneXpert.



## DIAGNOSIS & PRE-TREATMENT ASSESSMENT

We use the results of the aspartate aminotransferase (AST) and platelet tests conducted at an external laboratory to calculate the AST to Platelet Ratio Index (APRI) score for liver assessment. If specialist review is required, we will engage with our partner specialists to get guidance on what the client needs.



## TREATMENT

When the client returns, we provide results. If they are eligible, we provide them with their direct-acting antiviral (DAA) therapy. We will only refer a client to a specialist if they have decompensated cirrhosis or other significant co-morbidities.



## MONITORING

Every four weeks the client returns for a short monitoring visit to check in with the GP and receive their next month of medication.



## TEST FOR SVR12

Clients return for retesting to identify whether they have achieved sustained virologic response (SVR).



**We made our appointment times flexible to fit with our clients needs to attend a nearby hospital for daily OST dosing.**

**We provided sterile needles and syringes to all clients who attend for HCV testing and treatment, and any others in their networks.**



**We ran a 5-day course for our staff on the study protocol, national guidelines, and clinical training for identifying patients with hepatic decompensation.**

**We installed an online uninterrupted power supply and air-conditioning units to improve the laboratory environment and ensure conditions were suitable for the GeneXpert® device.**



## WHAT HCV SERVICES DO WE PROVIDE?



HCV education and information



HCV testing



HCV diagnosis



HCV treatment



Liver disease assessment



Needle & syringe programme

## WHAT INTERVENTIONS DO WE USE?



On-site testing



Point-of-care HCV antibody testing



Point-of-care HCV RNA testing



Reflex HCV RNA testing



Pre-test counselling and education



Peer support



On-site phlebotomy for pre-treatment assessments

## COMPLEMENTARY SERVICES WE PROVIDE



Access to needles, syringes, and other equipments



Access to a primary care provider



Access to HIV testing and treatment

## HOW IS IT FUNDED?



- PHILANTHROPY
- RESEARCH

Our service was the  
only free and serviced  
NSP in Yangon

# 100+

clients per week

## WHO DELIVERS OUR SERVICES?



**NURSE**

N = 1  
PER CLINIC



**PEER WORKER**

N = 1



**LAB TECHNICIAN**

N = 1  
PER CLINIC



**GENERAL  
PRACTITIONER**

N = 1  
PER CLINIC



**SPECIALIST  
PHYSICIAN**

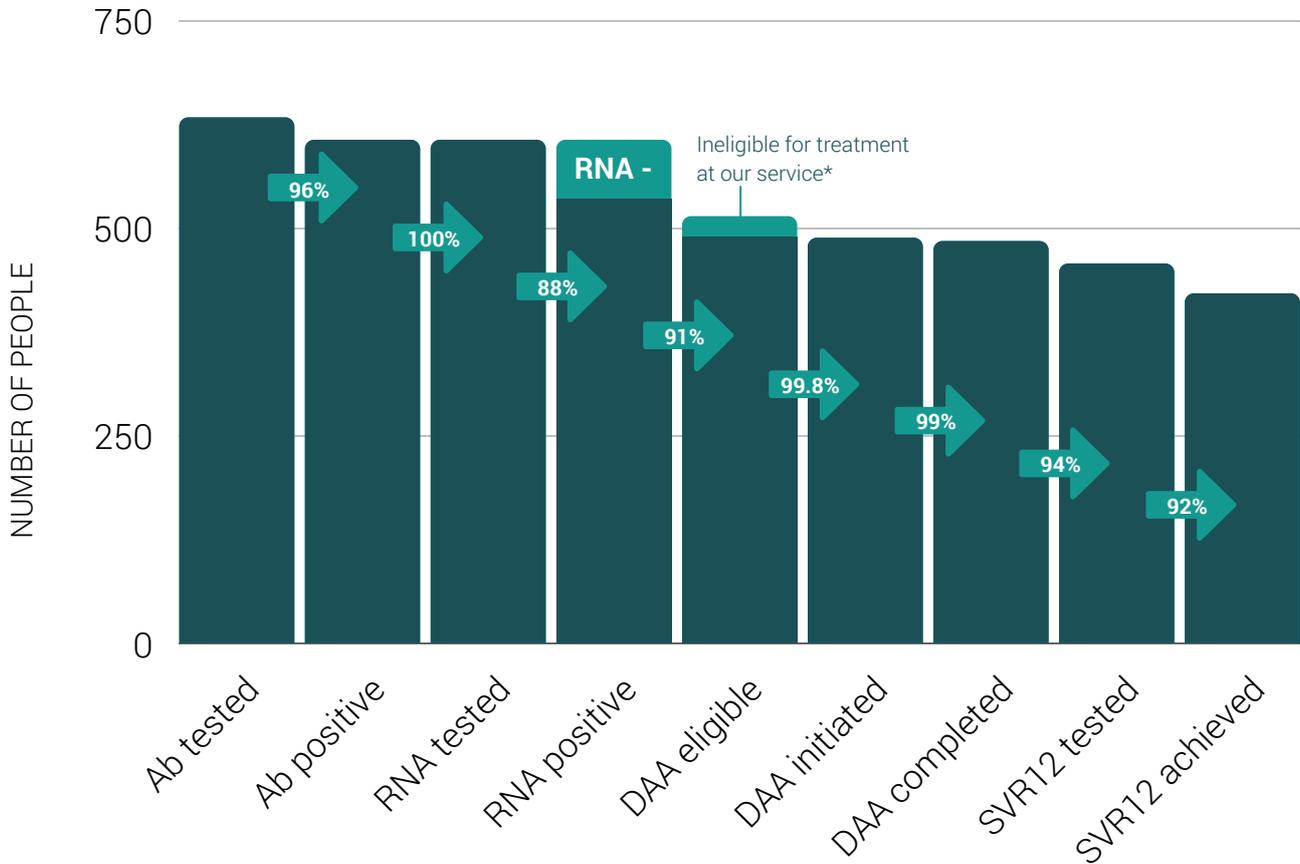
N = 1

**“The vast majority of HCV infections occur in low- and middle-income countries. This work shows that a simple one-stop-shop approach – where testing and treatment occur in the community – is highly effective.”**

**PROF. MARGARET HELLARD**  
DEPUTY DIRECTOR  
BURNET INSTITUTE

# WHAT WERE THE OUTCOMES?

January 2019–August 2020



## \*46 people were ineligible for treatment at our service:

- 15 HIV co-infections
- 11 HBV co-infections
- 18 HBV status unable to be determined
- 1 unable to attend follow-up visits
- 1 required surgery prior to DAA initiation

**“Keeping people throughout the care cascade is cost effective. The more we lose people throughout the cascade of care, the more expensive it is to get anyone to start treatment, finish treatment, and achieve a cure.”**

**BRIDGET DRAPER  
PROJECT LEAD, BURNET INSTITUTE**

## Number of visits to start treatment

2

92% of participants started treatment on their second visit

## Number of days from RNA test to treatment initiation

3

Median across two sites

“Patients reported that they were really satisfied with the point-of-care HCV testing and treatment with DAAs, and grateful to access care outside of hospitals.”

DR WIN LEI YEE  
CLINICAL COORDINATOR  
BURNET INSTITUTE MYANMAR

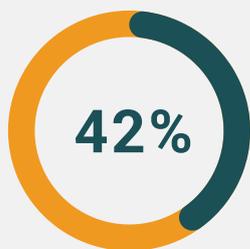
### Among clients who presented for testing:



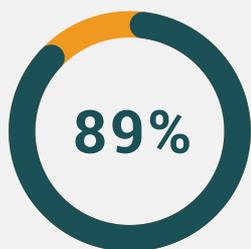
MALE



MEDIAN AGE  
= 42 YRS



EVER  
INJECTED  
DRUGS



INJECTED  
DRUGS IN PAST  
6 MONTHS



CURRENTLY  
PRESCRIBED  
OST



EVER BEEN  
INCARCERATED

# WHAT WERE THE BARRIERS?

## BARRIERS

## SOLUTIONS



We needed to define the criteria for referral to ensure that patients with decompensated liver disease were appropriately assessed, but we did not refer others unnecessarily, as this may have increased loss to follow-up.



The criteria for referral to a hepatologist were based on national guidelines and augmented following expert advice from gastroenterologists and infectious diseases physicians.



Working in a resource-constrained and humid environment, we needed to ensure a stable electricity supply to run the GeneXpert, air-conditioning and fridge for storing the test kits.



We installed an uninterrupted power supply (UPS) and a back-up generator to stabilize the electricity supply. Our laboratory room was purpose-renovated to meet requirements.



We needed to establish linkage to appropriate specialists through the public hospital system, including follow-through of patients attending and return of advice from the specialist to the treating GP.



We created a patient record book and referral form, as per the usual hospital system, to keep track of referrals. Our doctors followed patients up on referral outcomes.



Significant staff time was required to follow patients up to ensure attendance and adherence to treatment.



Doctors, nurses, and peer workers worked as a team to follow patients up as required. We capped the number of new patients per week to allow sufficient time for follow-up.



We needed to obtain the initial approvals to implement this model of care for people who inject drugs as a research study in Myanmar. This was challenging as similar work had not yet been undertaken in the region.



Required approvals were obtained through by partnering with our local implementer, Myanmar Liver Foundation. We worked with key stakeholders to revise our protocol for clarity.

# LOOKING TO IMPLEMENT A SIMILAR MODEL?

## OUR TOP 5 KEY CONSIDERATIONS

# 1

### INFRASTRUCTURE AND SPACE

Your service must have an adequate electricity supply and space to have the RNA testing platform installed. It also requires adequate air-conditioning and refrigeration to store test kits and drugs if you are in a humid environment.

# 2

### STAFF TRAINING AND SUPPORT

GPs must be trained and provided with a mechanism to access ongoing support/supervision, to ensure they are able to implement the treatment algorithm safely.

# 3

### ACCESSIBLE SPECIALISTS

Some clients will require referral to specialists and these appointments must be accessible to clients. We recommend either a rotating specialist located at the community-based service or engagement with a nearby hospital.

# 4

### ENGAGE WITH YOUR LAB

Eliminate the need for patients to attend a second location for pre-treatment blood tests by engaging with a nearby quality laboratory and arranging transportation of samples.

# 5

### REMOVE COST BARRIERS

Access to free or minimal-cost treatment is important in low/middle-income settings, especially for people who inject drugs. Government-funded programmes, global donors, and public-private partnerships can help increase access to low-cost treatment programmes.

