

Strengthening the HIV continuum of care

The experience of Vía Libre in Peru



Table of contents

About the International HIV/AIDS Alliance	2
Background	3
The HIV continuum of care	4
Typical barriers and delays faced along the HIV continuum of care	6
Challenges in the Via Libre HIV continuum of care and implemented solutions	8
Results	16
Lessons Learnt	17
Way Forward	18
References	19

About the International HIV/AIDS Alliance

This is one of a series of case studies produced by the International HIV/AIDS Alliance. The series brings together good practices from our global community-based programming to define and guide good practice in a range of technical areas including: human rights and the greater involvement of people living with HIV (GIPA), research, evaluation and documentation, HIV prevention, sexual and reproductive health and rights integration, HIV treatment, HIV programming for children, and HIV and drug use. Authors: Matteo Cassolato, Gitau Mburu, Robinson Cabello, Luís Menacho, Danny Canales and Fernando Roman. Acknowledgements: The authors would like to thank the entire Via Libre staff for providing tremendous support in collecting the information and data needed for this case study.

Design: Progression Design

© International HIV/AIDS Alliance 2016

Any part of this publication may be reproduced without permission for educational and non-profit purposes if the source is acknowledged.

Unless otherwise stated, the appearance of individuals in this publication gives no indication of either sexuality or HIV status.

Abbreviations and Acronyms

AIDS	Acquired Immune Deficiency Syndrome
ART	Anti Retroviral Treatment
ARV	Anti Retro Viral
ELISA	Enzyme-Linked Immuno Sorbent Assay
EMR	Electronic Medical Record
GIPA	Greater Involvement of People Living with HIV
Hep B	Hepatitis B
HIV	Human Immuno-deficiency Virus
HPV	Human Papilloma Virus
ICT	Information Communication Technology
IIFT	Indirect Immuno Fluorescence Test
MINSAs	Ministerio de Salud – Ministry of Health
MSM	Men who have Sex with Men
PEP	Post Exposure Prophylaxis
PICT	Provider Initiated Testing and Counselling
PLHIV	People Living with HIV
PMTCT	Prevention of Mother To Child Transmission
SMS	Short Message Service
STI	Sexually Transmitted Infection
SRH	Sexual and Reproductive Health
UIC	Unique Identifier Code
VIH	Virus de la Inmunodeficiencia Humana - HIV
VCT	Voluntary Counselling and Testing
VL	Viral Load
WB	Western Blot
WHO	World Health Organisation

Cover image:

'Provision of health services at the Via Libre clinic' 2016
© Via Libre

Background

Peru's HIV context

Peru has an estimated total population of 31.1 million, with about one third of the population aged under 20. Around 60% of the population are aged between 20 and 64, while the remaining 7% are 65 and older.

The country's HIV prevalence rate is estimated at 0.4% in the general population and around 66,000 people were living with HIV in 2015. A 2010 modes of transmission study found HIV to be particularly concentrated among key populations. Of the 4,346 new HIV infections in 2010, 3,650 (84%) occurred among men who have sex with men (MSM), female partners of MSM and sex workers (both male and female).¹ Moreover, 2011 prevalence data found transgender women, gay and bisexual men and other MSM to be disproportionately affected by the epidemic. Transgender women face the highest prevalence, estimated at 20.8%, while prevalence for MSM is estimated at 12.8%. Within the MSM population, prevalence is higher for those who engage in sex work (13.7%).²

Peru's epidemic has mobilised a wide range of actors and substantial economic resources, leading to the formation of an experienced team of HIV experts within the Peruvian health sector. The Ministry of Health coordinates the response with the National Multi-sectoral Commission on Health (CONAMUSA), which also leads on Peru's National Aids Strategic Plan and acts as country coordinating mechanism (CCM) for the Global Fund to Fight AIDS, TB and Malaria (the Global Fund). The Global Fund has been one of the most important funders of the HIV response in Peru, disbursing more than 67.6 million US dollars between 2003 and 2015.³

Peru's HIV response has achieved many things over the past decade. The country has considerably scaled-up HIV prevention and testing services for key populations through the implementation of peer-led interventions that reach on average more than 4,000 MSM and sex workers a year.⁴ The provision of antiretroviral treatment (ART) in Peru has changed the face of the epidemic and transformed HIV into a chronic, yet treatable, condition. In 2014, the National ART Programme was providing ART to more than 26,332 people living with HIV in Peru, which equates to around 40% coverage. Until the end of 2014, to be eligible for ART an individual had to have a CD4 count of 350cells/ mm³ or below. However, as of January 2015⁵, the CD4 threshold was raised to 500cells/ mm³, in line with 2013 World Health Organisation (WHO) treatment guidelines.⁶

ART in Peru has changed the face of the epidemic. In 2014, the National ART Programme was providing ART to around 40% of all people living with HIV in Peru

¹ Informe Nacional sobre los progresos realizados en la País. Perú 2012- 2013.

² MINSA: Informe sobre las opciones para mejorar la inversión en VIH en el Perú: síntesis de la evidencia. Informe final. 2014.

³ Aidsplan: Global Fund grants disbursements for Peru. <http://aidsplan.org/country/197>

⁴ <http://www.minsa.gob.pe/PortalVIH/lineasaccion.asp?Int=0>

⁵ Peruvian Ministry of Health resolution n. 962 -2014

⁶ World Health Organisation: Consolidated guidelines on the use of antiretroviral drugs for treating and preventing HIV infection Geneva, 2013



Via Libre

Via Libre was founded in 1990 by a small group of medical professionals and AIDS activists. From the beginning, Via Libre gave voice to many people in Lima who were affected by the epidemic but were not receiving the services and the assistance they needed from the government.

In its early years the organisation had a strong focus on advocacy interventions, mainly targeting the Peruvian government. As a result of working with other civil society organisations, in 1995 Via Libre's political activism led to the creation of the country's first HIV law. In 2002, thanks to a Global Fund grant, the Ministry of Health started providing ART free of charge. Subsequently, in 2004 the government launched the first national ART programme, with services available free of charge for all eligible people living with HIV.

In 1990, alongside its advocacy efforts, Via Libre started offering medical services tailored to meet the needs of sex workers and gay, bisexual or other MSM - the key populations most affected by the epidemic. Initially, Via Libre mainly provided HIV prevention services, plus treatment for opportunistic infections and HIV-related complications, but in 1996 it started offering ART treatment and support services. Today Via Libre runs a successful private clinic that provides a full range of HIV and sexual and reproductive health and rights (SRHR) services for men and women. Thanks to an agreement with the Ministry of Health, Via Libre is one of the few private clinics in Peru that can offer free ART. More than 1,600 patients now access treatment from Via Libre. More details on the Via Libre HIV clinic and the services it provides can be found on page 8.

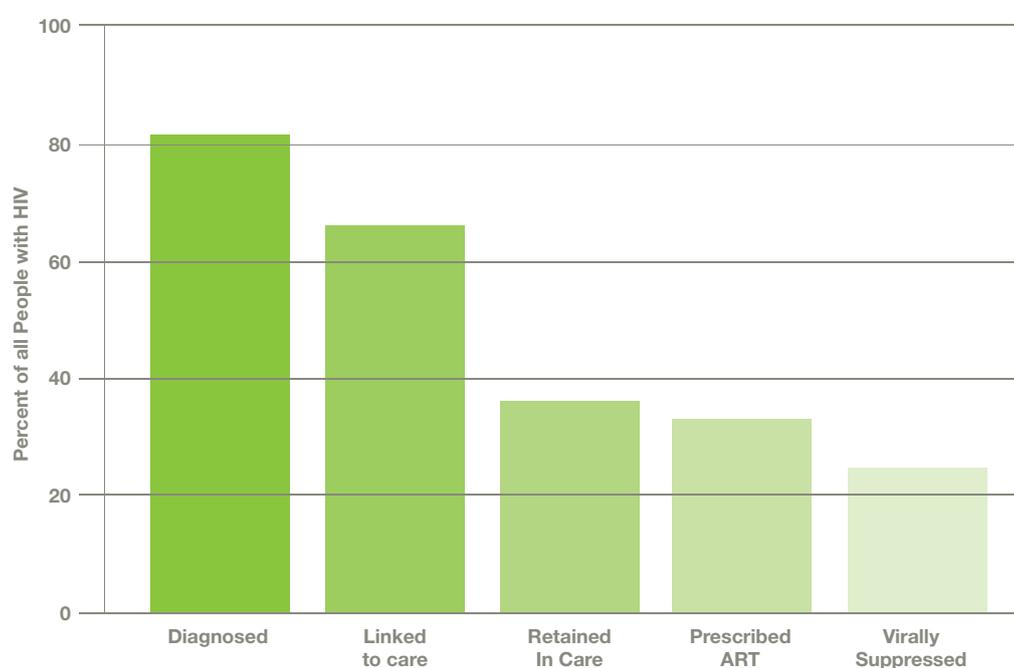
Via Libre is also part of the International HIV/AIDS Alliance (the Alliance), a network of organisations that exists to end AIDS through community action, and which has been supporting communities in the countries most affected by the global AIDS crisis since 1993.

The HIV continuum of care

The HIV continuum of care, also known as the HIV treatment cascade, is a conceptual framework used to describe and monitor the consecutive steps, from initial diagnosis to sustained viral suppression, which people living with HIV go through.

The HIV continuum of care model (Figure 1) is often represented by a bar chart, with each bar identifying a different key stage of HIV medical care. The graph normally includes five stages: (1) getting tested and diagnosed (2) being linked to care (3) engaging or being retained in care – this is also known as 'the pre-ART stage' (4) being prescribed ART and (5) achieving viral suppression (having low concentrations of HIV in the body).

Figure 1 The HIV Care continuum model



As this mode of representation is able to show the proportion of people living with HIV who are engaged with each step of the continuum, it can be used to monitor the quality of HIV care being provided at the national level, whilst also tracking the progress individuals make following initial HIV diagnosis.

In the HIV continuum of care model, testing services are the first and most critical step towards entering HIV care. Testing services help reduce the number of people who remain unaware of their HIV status. However, considerable efforts are needed to ensure that those diagnosed with HIV are effectively linked to the health services they need, and remain engaged with the health system.

For various reasons, people may face barriers that prevent them from accessing HIV services and/or in staying in care. When this happens, patients fall off the HIV continuum of care with negative and often life threatening consequences. This situation, also known as becoming 'lost-to-follow-up', effectively turns the HIV continuum of care into a 'cascade', whereby the number of people living with HIV receiving appropriate HIV services and achieving viral suppression progressively diminishes.

Here, time becomes a crucial factor in ensuring people are linked to care immediately after diagnosis, and are retained in care afterwards. Delays in the provision of care negatively impact the ability of patients to stay in care and can be associated with increased morbidity and mortality.

The progression of each individual from a positive HIV diagnosis to viral suppression is dependent on many external and internal variables (for instance, a patient's eligibility for treatment or psychosocial status); for some it can take



months, for others it can take years. Achieving viral suppression can help people lead longer and healthier lives so, ideally, the time between a positive HIV diagnosis and viral suppression should be as short as possible. Updated WHO treatment guidelines⁷ state that the early initiation of ART has a positive effect on the health and wellbeing of those living with HIV, and the benefits of starting ART immediately after diagnosis outweigh the risks of delaying treatment until a person's CD4 count has fallen to low levels (normally less than 350 cells/mm³).

To improve outcomes along the continuum of care, it is critical to understand why, where and when people living with HIV stop engaging with services, and to then implement interventions that address these issues.

This case study focuses on the interventions and actions taken by Via Libre to improve and strengthen the continuum of care within their clinic. After describing some of the typical barriers and challenges faced by people living with HIV when accessing HIV care, the study then examines Via Libre's response and the ways in which barriers were addressed in order to improve patient outcomes.

Typical barriers and delays faced along the HIV continuum of care

Unknown HIV status: One of the main challenges associated with the provision of HIV care is the fact that many people living with HIV are unaware of their status, and therefore do not access the care and treatment they need to stay healthy. Globally, more than half of those living with HIV are unaware of their status, yet testing services often fail to target those most at risk. Additionally, people who test negative are not always linked to preventive services and encouraged to retest at a later time.

Unconfirmed results/delay in confirming HIV test results: Unconfirmed or delayed confirmation of results is when someone initially has a reactive HIV test result, but does not receive additional testing to confirm their HIV diagnosis – either during the same visit or immediately afterwards. Depending on national HIV testing requirements and on the HIV tests used, the confirmation of a diagnosis can take a few minutes or can mean waiting for days. For instance, in cases when the confirmation test needs to be done by a laboratory technician, a waiting time of a number of days is normally inevitable. During this period, some clients will stop engaging with the clinic and do not come back, becoming lost-to-follow-up.

Failure or delay in linking to care: After a confirmed HIV diagnosis, it is critical for an individual to enrol in care as early as possible. This involves registering at an HIV clinic in order to routinely access HIV care and treatment.

To improve outcomes along the continuum of care, it is critical to understand why, where and when people living with HIV stop engaging with services, and to then implement interventions that address these issues.

⁷ WHO: Guideline on when to start antiretroviral therapy and on pre-exposure prophylaxis for HIV Geneva, 2015

Following registration, a clinical assessment of an individual's eligibility for ART, and initiation of ART if eligibility is confirmed, will be carried out. Failure to access an initial CD4 count or viral load test within three months of diagnosis is generally considered to indicate that a newly diagnosed person has failed to be linked to appropriate HIV care in a timely manner. A large proportion of people lost-to-follow-up have experienced this type of delay. Therefore, strengthening linkage to care has the potential to substantially improve the overall continuum of care.

Failure to retain people living with HIV in pre-ART care: Pre-ART care covers the period between enrolling in care and initiating ART. Its length varies and depends on a combination of factors, the main ones being the patient's CD4 count and the ART eligibility criteria used in the country. For some, pre-ART care can be very short, merely consisting of the time it takes to be clinically assessed, while for others it can be a period of years. In pre-ART care, patients' CD4 and viral load counts are routinely monitored, however some patients stop engaging with services at this stage. Factors that prevent retention in care at this point include a patient's inability to attend clinic appointments due to social or economic factors, for example, when patients need to travel long distances to access a clinic or simply do not feel well enough to attend.

Delayed access to ART: Delays in accessing ART occur when people living with HIV do not access treatment when they are eligible for it. Depending on the country context, and especially in resource-limited settings, delayed access to ART can be caused by drug stock-outs, or the lack of a decentralised ART delivery system, which forces patients to travel long distances to reach a clinic. Other causes include the fear of being discriminated against when visiting an ART clinic; waiting to access treatment; and incorrect assumptions about prognosis.

All people living with HIV have a right to treatment. In 2015, WHO recommended early initiation of ART for everyone, regardless of their CD4 count. However, in many countries ART eligibility criteria are still based on either the 350 or the 500 cells/mm³ thresholds. This slow adoption of the new 'start and offer' treatment recommendation effectively delays treatment for people living with HIV.

Failure to retain people living with HIV in ART/delay in achieving viral suppression: Achieving and sustaining viral suppression is an important goal of ART. On average, those living with HIV achieve viral suppression within six months of initiating ART. However, some who access ART do not manage to take it consistently, or find it difficult to adhere to their treatment due to side effects. This impacts on people's ability to stay in care and/or achieve viral suppression. In addition, ARV shortages and stock outs can interrupt treatment. Both factors can lead to patients developing drug-resistance, which forces them to switch to less preferred and often more expensive drug regimens.



Challenges in the Via Libre HIV continuum of care and implemented solutions

Having looked at the barriers that generally affect the HIV continuum of care, this section focuses on the specific challenges experienced by Via Libre, in both monitoring patients' outcomes across the continuum of care, and ensuring clients can access and remain engaged in HIV care.

Between January 2014 and August 2015 Via Libre, with financial support from the Alliance, monitored then evaluated the Via Libre HIV continuum of care, identifying areas that needed strengthening to ultimately improve patients' overall experience of the clinic. In order to assess the quality of the HIV services on offer, a cross-sectional study and a complete organisational analysis were conducted to gather information on the clinic's clients and their needs, and to track their flow through Via Libre's services. The Department of Public Health of the Cayetano Heredia University provided additional technical support in the analysis of the patients' flow charts, and in the design and introduction of a system to manage patients' clinical records.

The HIV clinic run by Via Libre is located in the centre of the capital, Lima. The clinic opens between Monday and Saturday from 9am to 6pm. It offers a wide range of outpatient HIV and SRH services to both men and women. Depending on the medical service in question, prospective clients are normally asked to pay a small fee, varying from 5 USD for an HIV test, to around 9 USD for a set of three tests (HIV, Hep B and Syphilis). A medical consultation to assess a patient for pre-ART and ART care costs around 12 USD and blood exams cost around 18 USD. ARV treatment, CD4 count and viral load monitoring are offered completely free of charge as these services are subsidised by the National Health System.

The clinic is visited by 730 patients a month on average. The majority of clients are gay and bisexual men and other men who have sex with men. Most clients come to the clinic for walk-in HIV tests or for appointments to either assess ART eligibility or to receive ARVs and monitor adherence.

Services offered in Via Libre clinic

HIV services (see page 2 for acronyms in full)

VCT and PICT	PMTCT	Adherence support services
PEP	OI treatment	CD4 and VL monitoring
ART	Hep B screening	Syphilis screening

SRH services

STI screening and treatment	HPV screening and colposcopy	Gynaecological exam
-----------------------------	------------------------------	---------------------

Lack of a unified data system

After these initial assessments, a recommendation was made for the clinic to improve its use of data in order to better track patients' progress across the continuum of care, and to improve service uptake and retention. Prior to September 2015, Via Libre did not keep a central database to store patients' medical records, rather, each clinical department (i.e. the testing and counselling unit, the laboratory, the treatment unit) used unconnected databases. Additionally, although each database used a coding system to protect patients' privacy, individual identifier codes changed across the various departments.

Network of Life

What are electronic medical records and unique identifier codes?

An electronic medical record (EMR) is a digital version of a paper chart that contains a patient's entire medical history at a practice. Mostly, providers use EMRs for diagnosis and treatment, as they are a way of easily tracking data over time; identifying patients who are due for visits and screenings; and monitoring patients' progression during treatment. EMRs can therefore improve the overall quality of care.

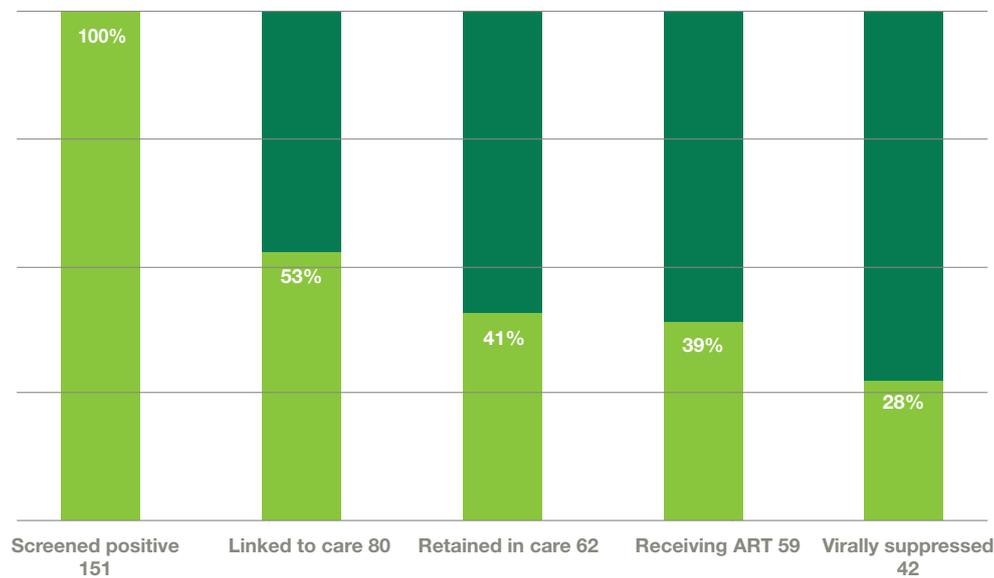
A unique identifier code (UIC) is assigned to a patient to identify them whilst at the same time protecting their privacy. UICs are normally created using an exact sequence of letters and/or numbers. Using them eliminates double counting and allows programmes to track clients as they move between services.

In order to introduce a single common system to manage patients' data, Via Libre and Cayetano Heredia University designed and implemented unifying EMRs and UICs throughout the clinic's medical and administrative services, through a project called 'Network of Life'. After a period of assessment and consultation with all Via Libre clinic staff and other providers of care, clinical information about each client was aggregated into one record in order to gain an accurate and comprehensive picture of that person's clinical situation. This information was then linked to a UIC, which enabled the clinic to track patients across services, whilst maintaining the confidentiality of patient data. Software for the management of EMR was installed in all workstations, and health workers and administrative staff were trained on its use. This lengthy process of data management systems development and validation was funded by the Alliance and took place between April 2015 and February 2016.

The introduction of UICs allowed Via Libre to track patients' progress and, crucially, the barriers they faced as they navigated the HIV continuum of care. The treatment cascade in Figure 2 represents the journey of patients who tested HIV positive between January and December 2014, plus a nine month period of follow-up (to September 2015).



Figure 2 Via Libre care cascade graph for people who screened positive in the period Jan – Dec 2014, with a follow up period of 9 months



Via Libre had to adapt the indicators commonly used in international continuum of care models to its particular situation and then ensure these indicators reflected the real treatment progression of clients across the continuum.

Indicators used to prepare the treatment cascade

People screened positive = Number of people who were screened positive with a first test in the period under consideration (Jan-Dec 2014)

Linked to care = Number of people diagnosed in the period under consideration who attended at least one appointment at the treatment department before the end of September 2015.

Engaged in care = Number of people diagnosed in the period under consideration who attended at least two appointments at the treatment department and were monitored at least once for CD4 and viral load before the end of September 2015.

On ART = Number of people diagnosed in the period under consideration who started receiving ART before the end of September 2015.

Virally suppressed = Number of people diagnosed in the period under consideration who achieved viral suppression (defined as CV<200 copies/ml) before end of September 2015.

The first column of the bar chart represents the number of people who tested positive on the first screening test at the Via Libre clinic between January and December 2014. The second, third, fourth and fifth columns represent the number of people linked in care, retained in care, on ART and virally suppressed between January 2014 and September 2015, as a proportion of the total number of people who screened positive.

As is immediately apparent, there is a steep drop between the first and the second columns, representing a large number of people who were not linked to care after their first positive HIV test result. Out of 151 people who tested positive, only 80 confirmed their diagnosis through a second confirmatory test⁸ and accessed the Via Libre treatment centre for an initial assessment before the end of September 2015. Percentage-wise this means that 53% of those who tested positive accessed HIV care and treatment at the Via Libre clinic, and the remaining 47% did not. This steep decline is the main problem with the treatment cascade for the period under consideration. As discussed earlier, when examining typical challenges for the continuum of care, this decline could be due to delays in confirming HIV test results as well as failed or delayed linkages to care.

Further problems are presented by the reductions in the number of people who remain engaged in care, and who access ART after a first medical assessment (i.e. the drops between the second, third and fourth columns); and a further reduction in the number of people who achieve viral suppression after initiating ART during the period under consideration (i.e. the drop between the fourth and fifth column).

Again, referring back to the typical challenges of the continuum of care discussed earlier, further reductions could be the result of failing to retain patients in pre-ART care (this relates to 18 out of 80 patients or 23%), delayed access to ART (3 out of 62 patients or 5%) or failing to achieve viral suppression (17 out of 59 patients or 29%).

With specific reference to the 17 patients who did not achieve viral suppression, it should be noted that some may have initiated treatment between June and September 2015. Since viral suppression is normally achieved between three to six months after starting treatment, this may indicate that some patients did not have enough time to achieve viral suppression by the end of September 2015.

To explain the high cumulative number of those lost-to-follow-up, Via Libre examined the data generated by the cascade model, taking into consideration patient demographic data collected through the cross-sectional study, and identified four main interrelated causes:

- 1.** The length of time it takes to confirm diagnosis and access the treatment department (waiting time)
- 2.** Lack of support mechanisms for patients newly diagnosed with HIV plus HIV stigma
- 3.** Suboptimal adherence to treatment
- 4.** Patients' individual preferences for treatment providers

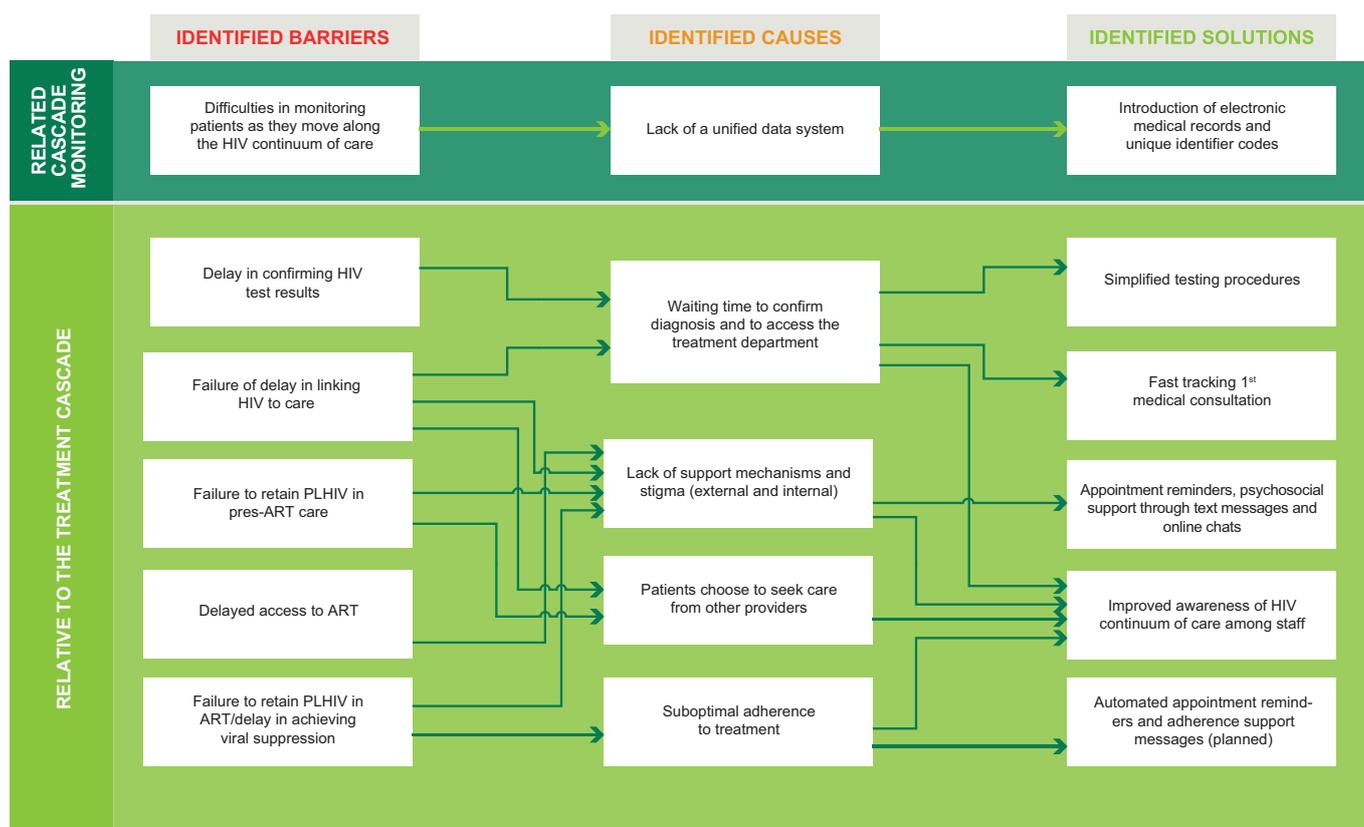
The study and review of the causes affecting the treatment cascade, coupled with understanding how they affect one another, prompted Via Libre to pilot innovative solutions in order to reduce the barriers faced by their clients when navigating the continuum.

⁸ Either through a Western Blot test (WB) or an Indirect Immunofluorescence Test (IIFT)



The following section presents each of the four causes in turn, and describes the solutions Via Libre implemented to address them (it should be noted that, as shown in Figure 3, in some cases a solution addressed more than one cause).

Figure 3 Barriers, causes and implemented solutions in the Via Libre cascade of care model



1. Waiting times

Until December 2014, in order to be eligible for ART paid for by the national health system, Peruvian Ministry of Health guidelines¹⁰ required public and private hospitals to follow a national testing algorithm consisting of at least two HIV tests, one of which had to be a laboratory test capable of identifying the presence of HIV antibodies, such as a Western Blot (WB) test or an indirect immunofluorescence test (IIFT).¹¹ In line with this requirement, Via Libre screened for HIV using a rapid test, which delivers results in about 20 minutes, then carried out a confirmatory test such as WB or IIFT if the rapid test was reactive. This meant clients had to wait an average of three weeks to receive their second test result and confirm their HIV positive status. This waiting time created the circumstances in which clients stopped engaging with the clinic and became lost-to-follow-up.

¹⁰ As demanded by the ministerial law n.28243

¹¹ These test are normally used to ascertain the presence of HIV antibodies and confirm HIV diagnosis

Simplified testing procedures and fast tracking first medical consultation

Between January and March 2015, and following new HIV testing and counselling recommendations from the Ministry of Health¹², Via Libre changed the clinic's testing algorithm. Although the new ministerial guideline still required a confirmatory test through WB or IIFT, it simplified the procedure needed to enrol in the national ART programme, enabling individuals to start seeking treatment after two positive rapid tests.¹³ Via Libre adopted the new ministerial guideline in January 2015. Testing counsellors started referring all patients with two positive reactive tests to the treatment department. Initially, while enrolling patients in the treatment programme, Via Libre also required patients to have a WB or IIFT as a confirmatory test. This confused patients as some did not understand why, after two positive rapid tests, another confirmatory test was needed. For this reason, in March 2015 Via Libre decided to stop requesting confirmatory tests and, as of April 2015, the clinic started diagnosing patients using just two positive rapid tests, carried out one after the other. Due to the elimination of the WB/IIFT tests, clients no longer needed to provide additional blood samples and come back for a second or even third appointment before receiving a confirmed HIV diagnosis. Potentially, they could be linked to care on the same day as testing positive.

In addition, in April 2015, with the objective of shortening the time it took for patients to be linked to care after diagnosis, Via Libre modified its care pathway by fast-tracking the first clinical appointment after a confirmed diagnosis. This ensured that newly diagnosed patients were directly referred to a clinician for their first assessment. Via Libre also tried to marry up the times when it provided HIV testing and counselling services with the availability of the infectious disease physicians working in the treatment department in order to increase a patient's chance of seeing a physician on the same day as diagnosis.

The joint modification of the testing procedures, and of the care pathway, dramatically shortened the time it took for a newly diagnosed patient to see a doctor for the first evaluation, and effectively meant that testing counsellors could immediately accompany a newly diagnosed patient to seek an appointment with a clinician (and likely obtain it) on the same day as diagnosis.

¹² Ministerial Resolution n.962, 11th Dec. 2014

¹³ This implied using rapid tests produced by different manufacturers



2. Lack of support mechanisms and HIV stigma

Another set of issues that contribute to people living with HIV becoming lost-to-follow-up are of a societal and, at times, personal nature. After receiving an HIV diagnosis, people often feel a range of emotions that can be difficult to cope with. They might be shocked, upset or angry and need support to deal with these emotions. Those without such support may feel depressed, lonely and incapable of carrying out everyday tasks and responsibilities. A cross sectional study conducted in November 2014 among Via Libre clients shows around a third (32%) of respondents had little or no social support for dealing with a crisis.¹⁴ A lack of support from family members or friends negatively impacts on the ability of people living with HIV to stay in care. As a consequence, they might miss medical appointments or fail to comply with HIV treatment.

Similarly, stigma associated with HIV - both self-stigma and that shown in other people's negative attitudes and behaviours - can stop people accessing care in a timely manner. As a direct result of stigma and a lack of support, Via Libre observed many patients becoming lost-to-follow-up at every step in the continuum of care. For instance, the very practical fears of being abandoned by family and friends, of losing a job, or having their reputation tarnished within the community, prevented clients from seeking the care they needed. When internalised, stigma can make people feel hopeless or unworthy, and can have damaging effects on mental wellbeing and health-seeking behaviour.

Appointment reminders and psychosocial support through text messages and online chats (the Linkages Project)

In an effort to provide some form of psychosocial support to patients newly diagnosed with HIV and to improve their linkage to care, Via Libre carried out a randomised controlled trial called Linkages (Enlace) between June 2015 and January 2016. Qualitative research was performed in order to design the intervention and to identify the main barriers preventing people from being linked to medical services. These barriers included a lack of emotional support; low levels of knowledge of the benefits of treatment; a negative perception of treatment; stigma and discrimination; and issues relating to how and where to receive care. The trial was conducted among 80 adult men who had been diagnosed with HIV in the previous three months. To increase linkage to medical services after diagnosis, participants were split into two randomised groups, where the first received short messages services (SMS) in addition to standard care whereas the second only received standard care. Four tutors were trained in the continuum of care and in the use of information technologies as a communication tool for HIV-related issues. The tutors supported participants in the intervention group for three months by sending twice weekly private messages, mostly using WhatsApp and/or Facebook messenger, as well as answering participants' questions.

The very practical fears of being abandoned by family and friends, of losing a job, or having their reputation tarnished within the community, prevented clients from seeking the care they needed.

¹⁴ Estudio Transversal (Línea de Base): Características Socio-demográficas y de Salud de la población con VIH que acude a Vía Libre. Lima, Perú, 2014.

3. Suboptimal adherence to treatment

Not adhering to treatment, or only partially adhering to it, prevents ARVs from working as they should, and consequently viral suppression is not achieved and/or maintained. For instance, factors such as forgetting to take ARVs, being away from home or changes in daily routine can decrease adherence and prevent people from achieving viral suppression. The cascade of care presented in Figure 2 shows that 29% of people receiving ART had not yet achieved viral suppression. This could be due to suboptimal adherence to treatment, however, this could also be because some patients may simply not have carried out a second viral load count after initiating treatment, or may have accessed ART for less than six months by the time the follow-up period ended, and therefore did not have sufficient time on treatment to achieve viral suppression. Others may have acquired a treatment resistant virus or experienced treatment failure.

Via Libre is currently in the process of addressing this cause. The solution, which is likely to be implemented in the second half of 2016, is described later on.

4. Preferences for clinical providers

Another possible cause of the low number of people linked to and retained in pre-ART care is represented by the patients who, for various reasons (some of them financial) transferred to other clinical providers, either immediately after obtaining a first positive screening or a confirmed HIV diagnosis or after being engaged in pre-ART care. Besides representing a loss of income for the clinic, this constitutes a problem in the sense that, once patients leave the clinic, it becomes almost impossible to know if they have successfully transferred to a new provider. After consulting the testing counsellors, Via Libre estimated that between 30 to 40% of all patients who tested positive in 2014 decided to access care in a different clinic.

Improved awareness of the HIV continuum of care among staff

Via Libre improved the awareness of its entire clinical and administrative staff regarding the importance of the HIV continuum of care. This was done periodically, during various meetings and validation exercises, while introducing the various projects and interventions mentioned above. In particular, Via Libre sensitised the clinic's HIV testing counsellors on the importance of following-up with those receiving an initial positive HIV screening. As a consequence, the counsellors were able to improve their ability to motivate and convince people to seek immediate attention. Understanding the challenges faced by patients when navigating the continuum of care helped staff support patients and, to a certain extent, encouraged patients to continue seeking care at the Via Libre clinic.

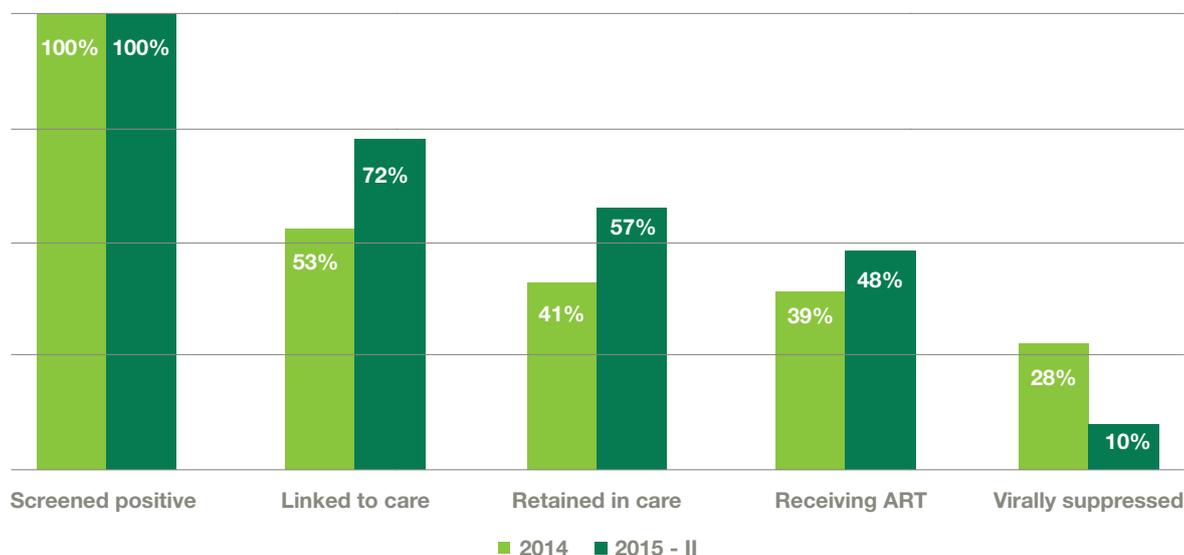


Results

These interventions, designed to improve patient outcomes across the continuum of care, started proving successful in the second half of 2015. During this period (screening between July and December 2015, and including a follow-up time of five months, until May 2016), Via Libre screened 174 people as HIV positive. They linked 126 of these (72%) to care then retained 99 (57%) in care. Moreover, 83 people (48%) started receiving ART, and of these 18 achieved viral suppression (10%).

The cascade of care in Figure 4 compares the previous cascade for 2014 (light green bars) with the cascade for the second half of 2015 (dark green bars).

Figure 4 Comparison between 1st cohort (Jan- Dec 2014) and 2nd cohort (Jul -Dec 2015)



Although the group of people who tested positive in the second half of 2015 was followed-up for only five months compared to nine months of follow up for the first group, improvements in the cascade can be observed in most of the continuum’s steps. In the first step of the cascade, the number of people who were successfully linked to care after diagnosis in 2015 in itself constitutes an increase of around 36% compared to the 2014 cohort. This indicates that the shortening of the waiting times between confirming diagnosis and accessing the treatment department has been effective and should be considered as a viable intervention by HIV treatment clinics facing similar problems.

Another intervention that has contributed to an increase in the linkage to care is the Linkages (Enlace) project mentioned earlier. During the trial involving 80 clients, half were placed in the intervention group and half in the control group. A total of 35 out of 40 participants (88%) randomised in the intervention arm interacted with

the tutors and, after 60 days of follow-up, 23 of them visited the health centre for HIV care (medical consultancy with CD4 and viral load results to define the start of treatment) compared to 16 (out of 40) in the group that were not contacted by tutors (control arm). These results mean that 40% more participants in the intervention arm were linked to HIV care at Via Libre compared to participants in the control arm. A manuscript on this intervention for a peer-reviewed journal is being prepared for publication in 2016. The mid and long-term impacts of this initiative will be assessed by Via Libre in the upcoming year.

It should also be noted that, although in the 2015 cohort a substantial number of patients continued to fall off the continuum of care, treatment cascades can experience fluctuating trends over time, which is why longer follow-up periods normally achieve better results. The fact that the two cascades compared in this study take into consideration different follow-up periods (nine months versus five months), coupled with the fact that the cascade for the second semester of 2015 shows clear improvements, suggests that following-up the second cohort for four additional months would lead to further improvements. For instance, a longer follow-up period for the second cohort would allow for a more accurate comparison of viral suppression outcomes between the two groups, currently the only step in the cascade showing no improvements.

Lessons learnt

The continuum of care model is being increasingly used globally, regionally and nationally to measure some of the progress and setbacks of the AIDS response. For implementers of HIV clinical services, the ability to monitor people living with HIV in care through the treatment cascade is critical. In its journey to address barriers across the HIV continuum of care, Via Libre identified key lessons that should be taken into consideration by any organisation attempting a similar task:

- 1) Generation and utilisation of data and strategic information. As soon as it started exploring the continuum of care model, Via Libre understood that, to develop a reliable treatment cascade capable of monitoring patients, it had to strengthen the processes through which the clinic generated and used data. As a result, it introduced and standardised the use of UICs and installed a central database to store and manage patients' EMRs. It also had to adapt the indicators commonly used in international continuum of care models to Via Libre's particular situation, then ensure these indicators reflected the real treatment progression of clients across the continuum.
- 2) Greater effort is needed to successfully test and link patients to care. Soon after preparing their first cascade of care, Via Libre was able to see that almost half of the people screened positive at the clinic were becoming lost-to-follow-up. The organisation then investigated the underlying reasons causing clients to leave the continuum and implemented interventions to address these issues. Even though it is not possible to pinpoint the extent by which each individual intervention contributed to increasing diagnosis and linkage to care, the results suggest that decreasing the number of clinical



appointments needed to confirm an HIV diagnosis and enrolling people more immediately in HIV care, combined with the use of ICTs for appointment reminders and psychosocial support, have been successful interventions.

- 3) Information Communication Technology (ICTs) and innovation improve the continuum of care. After assessing its clients' opinions, usages and preferences on ICTs, Via Libre introduced them to improve the continuum of care. Mobile phone applications such as text messaging, WhatsApp and online tools such as Facebook chat, were used to provide a form of tutoring to patients, giving them critical information about their health, appointment reminders and some form of psychosocial support. ICTs can also be used to increase retention in ART care.
- 4) The importance of staff awareness of the continuum of care. As is often the case, staff can react to organisational change with anxiety and, at times, resistance. In implementing the interventions described in this case study, Via Libre took particular care in ensuring that the entire staff, both medical and administrative, understood why changes were being made to the way in which clients were supported as they moved along the continuum of care. To this end, Via Libre's management created spaces where staff could openly discuss and validate each of the planned interventions in a culture of transparency and respect.

Way forward

Via Libre has not yet implemented solutions to increase retention in ART care and improve viral suppression among clients in care. However, to increase clients' adherence to treatment, and within the framework of the Network of Life project mentioned earlier in relation to the introduction of EMRs and UICs, Via Libre will soon launch a system that, through the use of ICTs, will automatically send text messages to clients reminding them of appointments and medications. Motivational messages for mitigating depression, nutritional messages, information about disease prevention and laboratory results will also be sent via text message. Patients will also be able to access a dedicated web portal containing information concerning their progression in the continuum of care, and key information about their HIV status.

Additionally, Via Libre is planning to start preparing specific treatment cascades for groups disproportionately affected by HIV, such as gay, bisexual and other men who have sex with men, who represent a large proportion of the Via Libre clientele. Ideally, these cascades will identify some of the specific barriers men who have sex with men face when navigating the HIV continuum of care, and will help inform interventions tailored to their needs.

Via Libre also intends to explore the possibility of working with the Peruvian Ministry of Health to introduce the use of EMRs and UICs into public health facilities. The Network of Life intervention could then be piloted in government health facilities, and networks extended to enable the sharing of EMRs between public and private health providers.

References

- Aidsplan, Global Fund grants disbursements for Peru. <http://aidsplan.org/country/197>
- Análisis de la Situación Epidemiológica del VIH/SIDA en el Perú, 2013
- Burtle, D., Welfare, W., Elden, S., Mamvura, C. et al., 'Introduction and evaluation of a 'pre-ART care' service in Swaziland: an operational research study'. *BMJ Open* 2012;2:e000195
- Consolidated guidelines on HIV testing services. 5cs: consent, confidentiality, counselling, correct results and connection. World Health Organisation, July 2015.
- Consolidated guidelines on the use of antiretroviral drugs for treating and preventing HIV infection. Recommendations for a public health approach. World Health Organisation, June 2013
- Estudio Transversal (Línea de Base): Características Socio-demográficas y de Salud de la población con VIH que acude a Vía Libre. Lima, Perú, 2014.
- Guideline on when to start antiretroviral therapy and on pre-exposure prophylaxis for HIV, World Health Organisation, September 2015
- Hall et al. Continuum of HIV care: differences in care and treatment by sex and race/ethnicity in the United States. 2012 International AIDS Conference for image of Care cascade US 2012
- Informe Nacional sobre los progresos realizados en la País 2012- 2013. Ministerio de Salud. Lima, Perú
- Informe sobre las opciones para mejorar la inversión en VIH en el Perú: síntesis de la evidencia. Informe final. 2014. Ministerio de Salud. Lima, Perú
- Larson, A. B., Brennan, A., McNamara, L., Long, L., et al., 'Early loss to follow up after enrolment in pre-ART care at a large public clinic in Johannesburg, South Africa'. *Trop Med Int Health*. 2010 Jun; 15(s1): 43–47
- Marco de Monitoreo del Continuo de la Atención al VIH 2014. Anexo al informe de reunión: consulta regional en America Latina y el Caribe sobre información epidemiológica de la infección por el VIH. Organización Panamericana de la Salud, Organización Mundial de la Salud, Abril 2014
- Resolución Ministerial n. 264 -2009 Ministerio de Salud. Lima, Perú
- Resolución Ministerial n. 962 -2014, Ministerio de Salud. Lima, Perú
- Resolución Ministerial n. 117 -2015, Ministerio de Salud. Lima, Perú

About the International HIV/AIDS Alliance

We are an innovative alliance of nationally based, independent, civil society organisations united by our vision of a world without AIDS.

We are committed to joint action, working with communities through local, national and global action on HIV, health and human rights.

Our actions are guided by our values: the lives of all human beings are of equal value, and everyone has the right to access the HIV information and services they need for a healthy life.