



Strategies for Success: Enhancing Viral Load Suppression among Women with HIV in Puerto Rico

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Who are we?

The Maternal Infant Studies Center (CEMI) is a leading women's health clinic in Puerto Rico specializing in HIV care. CEMI stands as the most prominent clinic for women living with HIV (WLHIV). Annually caring for more than 500 women, the clinic emphasizes the importance of viral suppression, which helps minimize the risk of clinical complications, progression to AIDS, mortality, and virus transmission.

The clinic addresses the challenges WLHIV face, including lower rates of viral suppression due to their multiple family and social roles, ensuring they receive top-quality care and support.



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Population Profile

Variable (total n=455)	(%)
Older than 45 years	61.4%
Stable/permanent housing	98.7%
Heterosexual transmission	87.7%
Perinatal Transmission	10.3%
Viral Load suppression	82.9%
CD4 count >200 cells/ml	89.9%



Patients served by year, retention, and viral load suppression (CEMI)

	2017	2018	2019	2020	2021	2022	2023
Total, Patients Served	384	335	389	364	449	452	460
Total, Pregnant Patients	33	29	14	22	25	25	27
Total, Visits (all services)	3,201	2,963	3,861	4,727	5,552	5,264	6,499
Retention	75%	74%	77%	73%	77%	79%	75%
Viral Load Suppression	69%	72%	72%	81%	81%	83%	87%



Since 2012, we have developed a **Quality Plan** to set forth a coordinated approach to address the **quality assessment and process improvement**.

The program's **mission** is that all services provided to people living with HIV/AIDS, people at risk, and/or people with a close relationship to our patients are consistent with treatment guidelines from the U.S. Public Health Services and U.S. Department of Health and Human Services, and other professional, state, and local standards of care in order to improve the quality of life of our patients.

Our **vision** is to become the clinic of choice for people living with HIV/AIDS, with services that exceed the highest standards of quality and result in optimal health, with the ultimate goal of achieving undetectable viral loads.



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Methods:

To enhance viral load suppression rates, targeted quality improvement projects have been developed throughout the years, focusing on the unique challenges WLHIV face.

These projects have utilized the PDSA cycle and root cause analysis to address key issues.

Our goal was aimed to reach an 85% undetectable viral load rate.





Root Cause Analysis →

The following reasons have been identified as the most significant factors for HIV virological non-suppression:

- ❖ Nonadherence to medical treatment;
- ❖ Co-occurring mental health disorder;
- ❖ Systems barriers limiting access to medication;
- ❖ Partner violence due to disclosure of HIV;
- ❖ Loss of follow up;
- ❖ A significant proportion of pregnant women start their care with viremia;
- ❖ Many of our patients receive HIV primary care services at other centers (since we are a specialized clinic) and we don't have copy of their lab results. We understand that many of the patients that our system identifies as "non-suppressed" is due to the lack of information in the system and does not necessarily mean that they are not suppressed.



Some strategies to improve viral load suppression →

- ❖ Adherence counseling was provided;
- ❖ More patients were enrolled in ADAP;
- ❖ A psychologist was hired so mental health services could be provided at our site;
- ❖ Transportation vouchers were offered;
- ❖ Increase the number of collaborative agreements with other clinics to share information;
- ❖ Patients who received HIV primary care at other clinics were identified in order to request evidence of viral load results;
- ❖ A new performance measure was created considering only the patients that have a viral load result available. This provided a more precise depiction of the VL suppression in our patients.
- ❖ Offered educational workshops to teach patients skills that helps them stay in care and be more adherent to treatment.



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Results:

Despite the substantial impact of the pandemic, the quality improvement project achieved significant success. Documented improvements show a significant rise in viral load suppression from 69% in 2017 to 87% by 2023, rates comparable to those reported for Hispanic women in the USA from 2014 to 2022, which ranged from 78.9% to 91.6%. However, the suppression rate for women living with HIV (WLHIV) in Puerto Rico stood at 73.4% in 2021, indicating a need for additional local strategies to address this disparity.

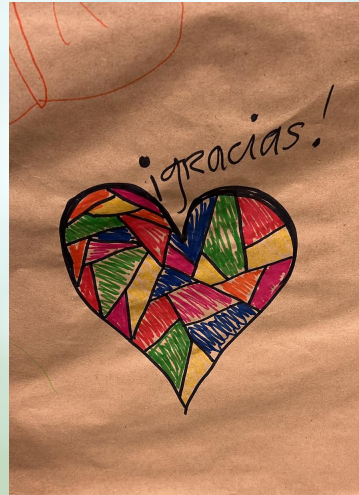


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The viral load suppression indicator has been increasing significantly in the past years thanks to all the improvement projects we have implemented and the extraordinary effort our team has made.





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Conclusions:

This accomplishment underscores the effectiveness of the clinic's comprehensive and adaptive strategies. The clinic's diverse strategies not only showcase best practices for HIV care programs aiming for optimal patient outcomes but also emphasize the potential for tailored interventions to address specific challenges in care retention. This comprehensive approach serves as a model for HIV care programs striving for excellence in healthcare delivery and patient management.



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Barriers and challenges

One of our biggest challenges for us is related to the fact that we are a specialized clinic and most of our patients receive HIV primary care services at other clinics. This not only limits the availability of information and copy of results, but we have no control about the quality of services they receive at other centers.

Nonetheless, our aim is to achieve a **95% target rate**, which is in line with the goals set forth in the **National HIV/AIDS Strategy for the United States for the period 2022-2025**. We remain committed to devising and applying strategies that will help us achieve this target.