

Evaluation of the *Undetectables* Program as an Intervention to improve HIV Care outcomes for Care Coordination Patients in a Hospital-Based Setting



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Wyckoff Hospital at a Glance



- Safety-net community hospital serves Central and Northern Brooklyn and Southern Queens communities
- Founded in 1889 as the German Hospital of Brooklyn
- Over 225,000 medical visits annually
- January-October 2018:
 - ❖ 39,797 unique patients served in all outpatient clinics
 - ❖ 651 patients living with HIV received care at the Positive Health Clinic
- Positive Health Management (PHM) was established in 1995 as the Wyckoff HIV Program and HIV Treatment Clinic
- Today PHM provides comprehensive HIV prevention and medical care; HIV, HCV, and status neutral case management; STI screenings and treatment; Hepatitis treatment; substance use counseling and mental health; individual and group-based patient education and support

Project Background: The HIV Care Coordination Program (CCP)

- Ryan White Part A- funded medical case management program for people living with HIV
- Developed by the New York City Department of Health and Mental Hygiene (NYC DOHMH)
- Implemented in NYC for over 9 years
- Program goal: improve HIV health outcomes among people living with HIV/AIDS (PLWHA) who experience barriers to care and treatment, by providing a team-based care approach and patient-centered navigation, health education, and support services to advocate for and coordinate patients' complex healthcare and social service needs.
- The Wyckoff Positive Health clinic has been providing CCP services since 2010.

Project Background: The Undetectables Program (UND)

- First program designed & implemented at Housing Works
- Wyckoff is one of seven NYC DOHMH grant-funded agencies in NYC & the only medical center-based program
- Program eligibility requirements:
 1. Have an HIV primary care provider (PCP)
 2. Have an HIV case manager (CM)
- Referrals from: CM, PCPs, Consumer Advisory Board (CAB), Self-referral, monthly clinic-wide VL detectable report
- Marketing: superhero culture & ETE messaging, flyers, posters, brochures



- Patient buy-in to ETE and community health goals
- Adherence toolkit with collaboration from CM to address barriers to care
- \$100 gift card incentive/quarter for VL results <200 copies
- Quarterly Patient Health Education Breakfast

Project Goals/Aims

- ❖ Evaluate whether CCP clients who were enrolled in the UND program at Wyckoff in 2017 experienced an increase in HIV health outcomes post-UND enrollment.

Methods

- Reviewed medical records of CCP clients who received services at Wyckoff between 1/1/2016 and 8/31/2018
- Eligibility:
 - ✓ clients actively enrolled in CCP after 1/1/2017 and
 - ✓ enrolled in UND prior to 9/1/2017 and
 - ✓ remained enrolled in UND for at least 6 months

Methods, Continued

- Sample divided into 4 baseline VL status groups based on the VL suppression pattern in the 12 months pre-UND¹:
 - i. Newly Diagnosed in the 12 months prior to UND enrollment date
 - ii. Consistently suppressed: ≥ 2 VLs at least 90 days apart and all VLS ≤ 200 copies/ μ L in a 12-month measurement period
 - iii. No evidence of Suppression (NS): all VLS > 200 copies/ μ L or no VL labs in the 12-month measurement period
 - iv. Inconsistently suppressed (IVS): ≥ 1 VL ≤ 200 copies/ μ L but not all VLS ≤ 200 copies/ μ L or not ≥ 2 VLs at least 90 days apart in the 12-month measurement period

1. Robertson MM, Waldron L, Robbins RS, et al. Using Registry Data to Construct a Comparison Group for Programmatic Effectiveness Evaluation: The New York City HIV Care Coordination Program. *Am J Epidemiol.* 2018;187(9):1980-1989.

Methods, Continued

- Client HIV care outcomes defined below, were compared pre- and post- UND enrollment for CCP clients
 - i. Appointment adherence rate: proportion of HIV medical appointments the client kept out of all kept and no-show appointments
 - ii. Immunologic success: achieving a $100+$ cell/ mm^3 CD4 increase after UND enrollment compared to baseline
 - iii. Virological success: the positive change of the viral suppression pattern post UND compared to baseline

Methods Continued

- Used Stata / IC v. 10.1 (StataCorp LP, College Station, TX) to conduct data analysis:
 - One-way ANOVA to assess the difference in continuous variables regarding demographic characteristics and case management enrollment duration
 - Paired student's t-test to compare the appointment adherence rate pre- and post-UND
 - Fisher's exact test to test the significance of differences in categorical demographic variables and HIV care outcomes

Results

Table 1. Characteristics of CCP clients pre - UND enrollment

| | Newly Diagnosed | Consistently suppressed | No evidence of Suppression | Inconsistently suppressed | P * |
|-----------------------------------------------------|-----------------|-------------------------|----------------------------|---------------------------|-------|
| Age (year) | 34.0±21.2 | 47.2±12.6 | 45.0±16.6 | 41.0±12.5 | |
| Gender | | | | | |
| Female | 1 | 10 | 0 | 7 | |
| Male | 1 | 14 | 5 | 6 | |
| Race / Ethnicity | | | | | |
| Black / African American | 1 | 12 | 3 | 4 | |
| Black Hispanic | 1 | 0 | 0 | 1 | |
| Hispanic | 0 | 11 | 2 | 8 | |
| Other | 0 | 1 | 0 | 0 | |
| Length (in months) of receiving CCP services | 4.5±4.9 | 30.0±16.8 | 12.2±13.1 | 21.3±18.3 | 0.049 |

* P-value based on one-way ANOVA

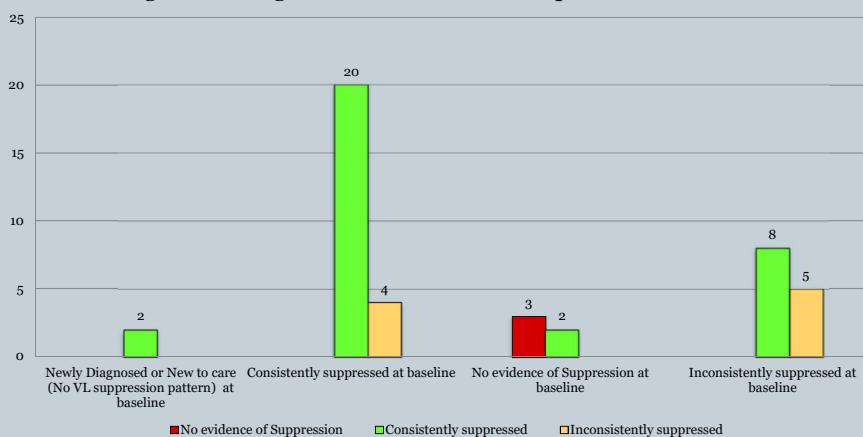
Results Continued

➤ Appointment adherence rate

- Clients with inconsistent viral load suppression pre-UND improved their appointment adherence rate from 63% to 71% post UND (p=0.09)
- The trend is heading the right way, but there is no significant difference in appointment adherence rate pre and post- UND enrollment

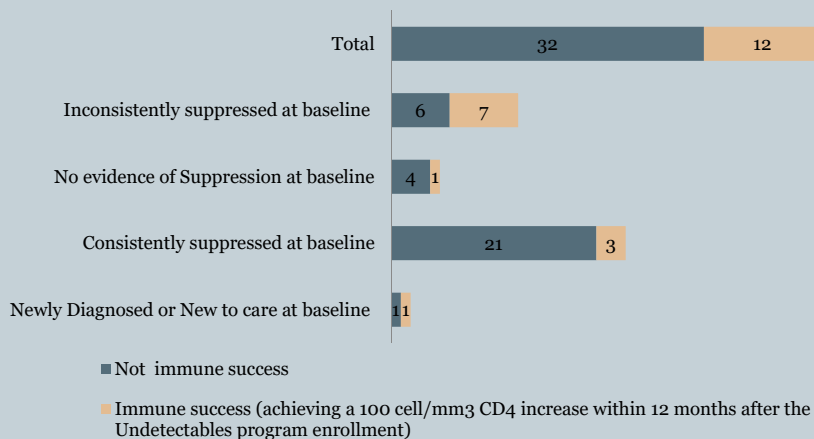
Results, Continued

Figure 1. Virological Success in CCP Patients post-UND Enrollment



Results, Continued

Figure 2. Immune Success in CCP Patients post-UND Enrollment



Conclusion

- Enrollment in the UND program provided additional support and resources for CCP clients and led to significant differences in HIV care outcomes among clients with distinct pre-UND enrollment VL suppression pattern.
- Clients with Insufficient Viral Load Suppression at baseline might be the most likely group to benefit from UND enrollment.

Limitations

- Small sample size
- Other potential confounding factors such as mental health and substance use issues were not included in the study analysis.

Thank You!

Questions about our study?

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