



Department
of Health

Organizational HIV Treatment Cascade Review

Updated Presentation on the Review of Care Provided in 2018*

*All results are based on data received through 10/1/19

AIDS Institute – Office of the Medical Director

How We Reviewed the 2018 Data

- As of 10/1/19, we had received 77 of 79 requested Health Commerce System (HCS) submissions.
 - 1 submission did not pass automated validation checks.
 - 4 other submissions were removed from the dataset after review by the data administrator and applicable quality coach.
- Separate data received from Health+Hospitals (17 NYC public hospitals and D&TCs).
 - Each medical center treated as a separate “organization” for this review.
 - Data about some patient characteristics and for timely suppression of newly diagnosed patients were not available for inclusion in the submission.
- Datasets scored separately and then combined:
 - 89 total organizations
 - 250 clinics providing HIV-specific care
 - 98,174 total patient records* (14,670 from H+H; 83,504 ROS)

*89,672 total “unique” patients after deduplication across organizations using first and last names (as entered) and year of birth.

Categorization of Patients

| Category | Definition | Patients | | Notes |
|--------------------|---|---------------|----------------------------|---|
| | | Total Records | Deduplicated within Group* | |
| Established Active | Diagnosed prior to 2018; seen prior to 2018; enrolled in care in 2018. | 63,065 | 62,671 | Includes patients with unknown diagnosis date. |
| Open Inactive | Diagnosed prior to 2018; “touched the system” in 2018 but not enrolled in care. | 20,795 | 19,414 | These are the “unknown status” patients who cannot be excluded for reasons listed below. |
| Newly Diagnosed | Diagnosed in 2018 (original diagnosis date, whether within organization or externally). | 1,596 | 1,577 | Includes newly enrolled as well as “lost to follow-up”; only patients internally diagnosed were eligible for the linkage measure. |
| Other New to Care | Diagnosed prior to 2018; not seen in 2016 or 2017; enrolled in care in 2018. | 6,596 | 6,520 | Includes entirely new patients and those returning after an absence of at least 2 years. |
| Excluded | Incarcerated, relocated, receiving ongoing external HIV care in NYS or deceased as of 12/31/18. | 6,122 | 6,048 | Includes 32 externally newly diagnosed patients; internally diagnosed patients still eligible for linkage measure. |

*Using first and last names (as entered) and year of birth.

Established Active Patients - Benchmarks

| Benchmark | 2017 (n = 165 Clinics; 53,272 Pts.)* | | | 2018 (n = 242 Clinics; 63,065 Pts.) | | |
|-----------------------------|--------------------------------------|---------|------------------------|-------------------------------------|---------|------------------------|
| | Percentage of Patients | | | Percentage of Patients | | |
| | On ART | VL Test | Suppressed on Final VL | On ART | VL Test | Suppressed on Final VL |
| Average | 97% | 95% | 81% | 97% | 95% | 82% |
| 25 th Percentile | 97% | 97% | 77% | 98% | 96% | 79% |
| Median | 99% | 99% | 86% | 99% | 99% | 87% |
| 75 th Percentile | 100% | 100% | 91% | 100% | 100% | 93% |

*2017 data were reported in aggregate via organizational treatment cascade reports. Data from each report were transcribed by OMD staff into an Excel template and then combined in a master file. 14 reports that contained internally contradictory data for any of the primary cascades were excluded from this master file and the summary values here. NYC Health+Hospitals was treated as a single organization in 2017.

Suppression Then and Now

| Year | 2007 (n = 9,249 patients; sample-based review) | | | | | | 2018 (n = 63,065 patients; caseload-based review) | | | | | |
|-------------|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Benchmark | Mean | 10 th Pct. | 25 th Pct. | 50 th Pct. | 75 th Pct. | 90 th Pct. | Mean | 10 th Pct. | 25 th Pct. | 50 th Pct. | 75 th Pct. | 90 th Pct. |
| Score | 71% | 44% | 62% | 76% | 85% | 91% | 82% | 64% | 79% | 87% | 93% | 100% |
| Numerator | Patients for whom the last viral load during the review period was < 400 cells/mL (either detectable or undetectable). | | | | | | Patients for whom the last viral load during the review period was < 200 copies/mL (detectable) or undetectable using an assay with a sensitivity of 200 copies/mL or less. | | | | | |
| Denominator | Patients with at least one visit in each half of the review period who had at least two viral loads during the review period and who were on ART at any time during the review period. | | | | | | "Established" active patients (all patients seen at least once during the review year for HIV care except those newly diagnosed or otherwise new to care during the review year). | | | | | |

Established Active Patients – VLS by Patient Groups*

| Clinic Benchmarks – All NYS Patients | 25 th Percentile | Median | 75 th Percentile |
|--------------------------------------|-----------------------------|--------|-----------------------------|
| | 79% | 87% | 93% |

| Group** | Clinic Benchmarks for Group | | |
|--|-----------------------------|------|-----------------------|
| | 25 th Pct. | Med. | 75 th Pct. |
| Black/African American (n=30,800) | 78% | 86% | 91% |
| White (n=16,872) | 80% | 90% | 97% |
| Asian (n=1,152) | 94% | 100% | 100% |
| American Indian/Alaskan Native (n=396) | 77% | 100% | 100% |
| Native Hawaiian/Pacific Islander (n=192) | 75% | 100% | 100% |
| Non-Hispanic Ethnicity (n=32,737) | 76% | 87% | 93% |
| Hispanic Ethnicity (n=15,234) | 78% | 89% | 98% |

| Group** | Clinic Benchmarks for Group | | |
|----------------------------------|-----------------------------|------|-----------------------|
| | 25 th Pct. | Med. | 75 th Pct. |
| MSM risk (n=19,297) | 82% | 89% | 100% |
| Hetero. risk (n=19,754) | 79% | 89% | 95% |
| IDU risk (n=3,096) | 77% | 90% | 100% |
| Perinatal risk (n=793) | 58% | 84% | 100% |
| Other risk (n=578) | 67% | 100% | 100% |
| Blood exp. risk (n=384) | 83% | 100% | 100% |
| Hemophilia risk (n=47)*** | 100% | 100% | 100% |
| Stable housing (n=41,363) | 82% | 89% | 96% |
| Temp./Unstable housing (n=3,930) | 60% | 75% | 100% |

*Excluded due to unknown status: Race = 13,903; Ethnicity = 15,094; Risk = 19,527; Housing = 17,772.

**Patients may be of more than one race and/or have multiple risk factors.

***All 47 patients were suppressed on final VL.

Established Active Patients – VLS by Patient Groups (cont.)

| Clinic Benchmarks – All NYS Patients | 25 th Percentile | Median | 75 th Percentile |
|--------------------------------------|-----------------------------|--------|-----------------------------|
| | 79% | 87% | 93% |

| Group | Clinic Benchmarks by Group | | |
|---|----------------------------|------|-----------------------|
| | 25 th Pct. | Med. | 75 th Pct. |
| Age 0 to 12 (55 pts.; 17 clinics) | 80% | 100% | 100% |
| Age 13 to 19 (217 pts.; 46 clinics) | 53% | 91% | 100% |
| Age 20 to 24 (1,224 pts.; 126 clinics) | 67% | 82% | 100% |
| Age 25 to 29 (3,637 pts.; 165 clinics) | 69% | 83% | 100% |
| Age 30 to 39 (10,060 pts.; 186 clinics) | 77% | 87% | 100% |
| Age 40 to 49 (12,510 pts.; 202 clinics) | 80% | 88% | 96% |
| Age 50 to 59 (20,610 pts.; 207 clinics) | 82% | 89% | 96% |
| Age 60 plus (14,752 pts.; 205 clinics) | 84% | 93% | 98% |

| Region* | Clinic Benchmarks by Region | | |
|--|-----------------------------|------|-----------------------|
| | 25 th Pct. | Med. | 75 th Pct. |
| Bronx (10,169 pts.; 50 clinics, 11 small ^{**}) | 74% | 83% | 87% |
| Brooklyn (10,790 pts.; 40 clinics, 12 small ^{**}) | 74% | 86% | 90% |
| Manhattan (25,137 pts.; 52 clinics, 14 small ^{**}) | 77% | 84% | 90% |
| Queens (3,397 pts.; 11 clinics, 3 small ^{**}) | 79% | 86% | 92% |
| Staten Island (365 pts.; 4 clinics, 0 small ^{**}) | 65% | 76% | 88% |
| Central NYS (1,619 pts.; 15 clinics, 7 small ^{**}) | 85% | 91% | 100% |
| Long Island (3,976 pts.; 14 clinics, 2 small ^{**}) | 88% | 91% | 94% |
| Lower Hudson (1,074 pts.; 11 clinics, 4 small ^{**}) | 87% | 89% | 94% |
| Mid-Hudson (671 pts.; 20 clinics, 12 small ^{**}) | 88% | 92% | 100% |
| Northeast NYS (1,720 pts.; 11 clinics, 4 small ^{**}) | 92% | 94% | 100% |
| Western NYS (4,109 pts.; 13 clinics, 4 small ^{**}) | 89% | 90% | 93% |

*38 patients seen within a multi-borough community health program were excluded. “Central NYS” includes the Binghamton and Syracuse RW regions; “Western NYS” includes the Rochester and Buffalo RW regions; and “Northeast NYS” matches the Albany RW region.

** “Small clinic” is defined as one having fewer than 20 eligible patients.

Newly Diagnosed Patients - Linkage

| Benchmark | Percentage of Patients Diagnosed Internally (n=1,107) Who Were Linked within... | | | |
|-----------------------------|---|--------|---------|---------|
| | 3 Days* | 7 Days | 30 Days | 90 Days |
| Average | 43% | 57% | 82% | 88% |
| 25 th Percentile | 20% | 34% | 70% | 82% |
| Median | 41% | 57% | 86% | 95% |

*The average rate for 3-day linkage in the 2017 cascade data was 64%.

However, this was reported as a single number, rather calculated from patient-level data including date of diagnosis and date of HIV care initiation.

Newly Diagnosed Patients – ART & VLS

| Benchmark | Internally Diagnosed in 2018 (n = 1,034)* | | | | | Externally Diagnosed in 2018 (n = 489)* | | | | |
|-----------------------|---|--------------------|---------------------------------------|--------------------------|---|---|--------------------|---------------------------------------|--------------------------|---|
| | Percentage of Patients | | | | | Percentage of Patients | | | | |
| | On ART | Any VL Test (2018) | VL Test within 91 Days of Diagnosis** | Ever Suppressed (2018)** | Suppressed within 91 Days of Diagnosis*** | On ART | Any VL Test (2018) | VL Test within 91 Days of Diagnosis** | Ever Suppressed (2018)** | Suppressed within 91 days of diagnosis*** |
| Average | 88% | 94% | 93% | 67% | 48% | 91% | 93% | 81% | 65% | 37% |
| 25 th Pct. | 75% | 90% | 89% | 50% | 25% | 96% | 100% | 75% | 50% | 0% |
| Median | 100% | 100% | 100% | 67% | 48% | 100% | 100% | 96% | 78% | 40% |
| 75 th Pct. | 100% | 100% | 100% | 89% | 67% | 100% | 100% | 100% | 91% | 56% |

*73 internally diagnosed patients and 32 externally diagnosed who died or relocated in 2018 or who were incarcerated or receiving external care at the end of review period are not included here.

**282 patients newly diagnosed in 2018 within the Health+Hospitals system are excluded from the testing within 91 days indicator and both suppression measures.

***30 other patients (12 internally diagnosed and 18 externally diagnosed) with first suppressed VL on date of diagnosis have been removed from the scoring of timely suppression.

Other New to Care Patients – ART & VLS

| Benchmark | 2017 (n=62 organizations)* | | | 2018 (n=81 organizations) | | |
|-----------------------|----------------------------------|---------|------------------------|----------------------------------|---------|------------------------|
| | Percentage of Patients (n=6,319) | | | Percentage of Patients (n=6,596) | | |
| | On ART | VL Test | Suppressed on Final VL | On ART | VL Test | Suppressed on Final VL |
| Average | 90% | 94% | 68% | 93% | 96% | 71% |
| 25 th Pct. | 90% | 93% | 62% | 89% | 95% | 63% |
| Median | 96% | 97% | 71% | 97% | 99% | 74% |
| 75 th Pct. | 100% | 100% | 86% | 100% | 100% | 81% |

*2017 data were reported in aggregate via organizational treatment cascade reports. Data from each report were transcribed by OMD staff into an Excel template and then combined in a master file. 14 reports that contained internally contradictory data for any of the primary cascades were excluded from this master file and the summary values here. NYC Health+Hospitals was treated as a single organization in 2017.

Matching of Active and Inactive Patients

- Using conservative “fuzzy” matching on name and DOB, we identified patients listed as “inactive” (not enrolled in HIV care) at one organization but active at another.
- Statewide, there were approximately 25,022 unique inactive patients, and approximately 6,045 (24.2%) of these were matched with an active patient.*

Enrollment Status of Inactive Patients (57 Pts. without DOB Excluded)

| Status | All Inactive Patients | | Matched Patients | |
|----------------------|-----------------------|-------|------------------|-------|
| | Pts.** | % | Pts.*** | % |
| Deceased | 579 | 2.1% | 22 | 0.3% |
| External HIV Care | 5,016 | 18.6% | 1,004 | 14.4% |
| Incarcerated | 239 | 0.9% | 17 | 0.2% |
| Relocated out of NYS | 328 | 1.2% | 17 | 0.2% |
| Unknown Status | 20,867 | 77.2% | 5,891 | 84.8% |

*Deduplication based on first name, last name and year of birth.

**Total = 27,029 as some patients are reported as inactive at multiple organizations.

***Total = 6,951 as some patients are reported as inactive at multiple organizations.

Thank You

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