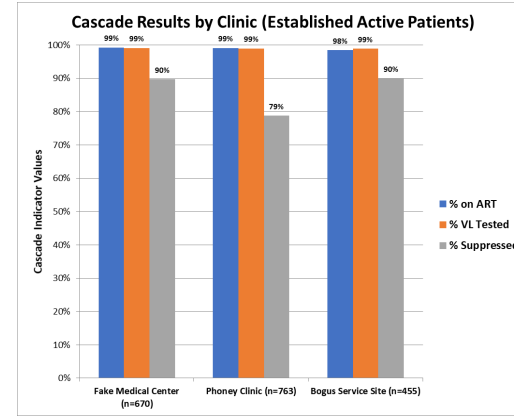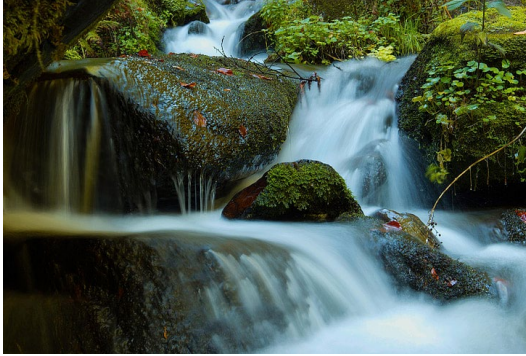# Initial 2021 NYS Quality of Care Program Organizational Treatment Cascade Results

Outline of Today's Presentation

- Background and Definitions
- Preliminary Findings
- QI Projects and Next Steps

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Background and Definitions

A (Very) Brief History of the Cascades

- Piloted in 2017 to further efforts outlined in the 2014 NYS EtE Initiative

- Replaced eHIVQUAL as the primary QOC Program review in 2018

- Reporting templates were updated for reviews of care provided in 2019, 2020 and 2021

Image courtesy https://www.pickpik.com/waterfall-cascade-flowing-water-autumn-moss-stones-136658

2022 Cascade Review of Care Provided in 2021

- Review of care provided in 2021 closed on 11/30/22 with submission and approval of data from 75 of 80 targeted organizations plus a separate submission of patient-level data from 17 hospitals and D&TCs within the NYC public health system (NYC Health + Hospitals).

- These reviews encompass approximately 100,000 patients annually (15,000 from Health + Hospitals and 85,000 from other providers; deduplicated within submissions but not across them).

Components of the Cascades

- Specification of submitting organization, contact person and organizational reviewer
- Patient-level data
    - Demographic information
    - Diagnosis and enrollment status
    - Cascade outcomes
- Data tools
    - Data validation
    - Tabular and graphic displays of results
    - Data analysis
- Quality improvement section
    - Methodology statement
    - Key findings
    - Up to 3 QI projects including indicator, current rate, goal for next year, and description
    - Description of consumer involvement in quality improvement activities

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Patient Caseload Categories

Diagnosis Status

Enrollment Status

		Internally diagnosed in 2021	Externally diagnosed in 2021	Previously diagnosed or unknown
Active	New to HIV clinic in 2021, continuing in program	Newly diagnosed, linkage eligible	Newly diagnosed, linkage ineligible	Other new to care
	Seen in HIV clinic prior to 2021 and in 2021, continuing in program			Established active*
Non-active	HIV care status unknown, not enrolled at reporting organization	Newly diagnosed, linkage eligible (excluded from resistance testing)	Newly diagnosed, linkage ineligible (excluded from resistance testing)	Open non-active*
	Deceased, incarcerated, relocated outside NYS or in conformed ongoing external HIV care as of 12/31/2021	Linkage only (excluded from other indicators)	"Excluded" (used for matching with other patients but removed from indicator calculations)	

*"Open Patient Caseload" combines established active and open non-active patients.

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Indicator Definitions

- Newly Diagnosed Patients
  - Linkage to care: HIV clinic visit or ARV prescription within 3 days of diagnosis
  - Resistance test: Test performed during review period
  - ARV therapy: Prescription during review period (other than PEP/PrEP)
  - VL testing: Test within 91 days of diagnosis
  - VL suppression: Suppressed VL (< 200 copies/mL) within 91 days of diagnosis
- Previously Diagnosed Patients
  - ARV therapy: Prescription during review period
  - VL testing: Test during review period
  - VL suppression: Suppressed (< 200 copies/mL) on final VL of review period (counted as unsuppressed if no VL was documented)

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Preliminary Findings

Data Included in the Presentation

Group	Included Data	Not Included
NYC Health + Hospitals	2019 and 2020 data where compatible with other submissions	2021 data (not scored yet) and 2019 and 2020 indicators where insufficient information was available (particularly linkage to care and distinction between established and new to care patients)
Other medical organizations in NYS that receive Medicaid or ADAP funding to provide HIV clinical care	All indicators with eligible patients for each approved submission	Organizations that do not submit approved data each year ("all or nothing" approval)
Private practices, corrections system, and VA hospitals	Do not participate in the review	

Benchmarks Used in the Presentation

Term	Meaning
Mean	Average clinic rate for indicator. This is usually lower than the median rate (see below) as the more extreme results are often at the bottom of the range, "dragging down" the average.
10th Percentile	Approximately 10% of clinics had a rate at or below this value, and 90% were above. It can be thought of as a "very low score."
25th Percentile	Approximately 25% of clinics had a rate at or below this value, and 75% were above. It can be thought of as a "low score."
50th Percentile (or Median)	Approximately half of the clinics had a rate below this value, and half were above. It can be thought of as a "typical score."
75th Percentile	Approximately 75% of clinics had a rate below this value, and 25% were at this rate or above. It can be thought of as a "high score."
90th Percentile	Approximately 90% of clinics had a rate below this value, and 10% were at this rate or above. It can be thought of as a "very high score."

Indicator Summary – Review of Care Provided in 2021
Organization-level Benchmarks (without Health + Hospitals)
Newly Diagnosed Patients

Indicator	Orgs.	Pts.	"Average Rate" Mean	"Very Low" Rate 10th Pct	"Low" Rate 25th Pct	"Typical" Rate 50th Pct	"High" Rate 75th Pct	"Very High" Rate 90th Pct
3-day Linkage	66	663	56%	0%	33%	61%	85%	100%
Resistance Testing	69	933	71%	0%	50%	88%	100%	100%
ARV Newly Diagnosed	69	982	93%	71%	92%	100%	100%	100%
VL Testing Newly Dx.	69	982	85%	57%	76%	92%	100%	100%
VL Suppression Newly Dx.	69	973	45%	0%	25%	48%	70%	75%

Quotation marks are used around "very low," "low," etc. as these are relative terms based on observed data and may not reflect our expectations for performance.

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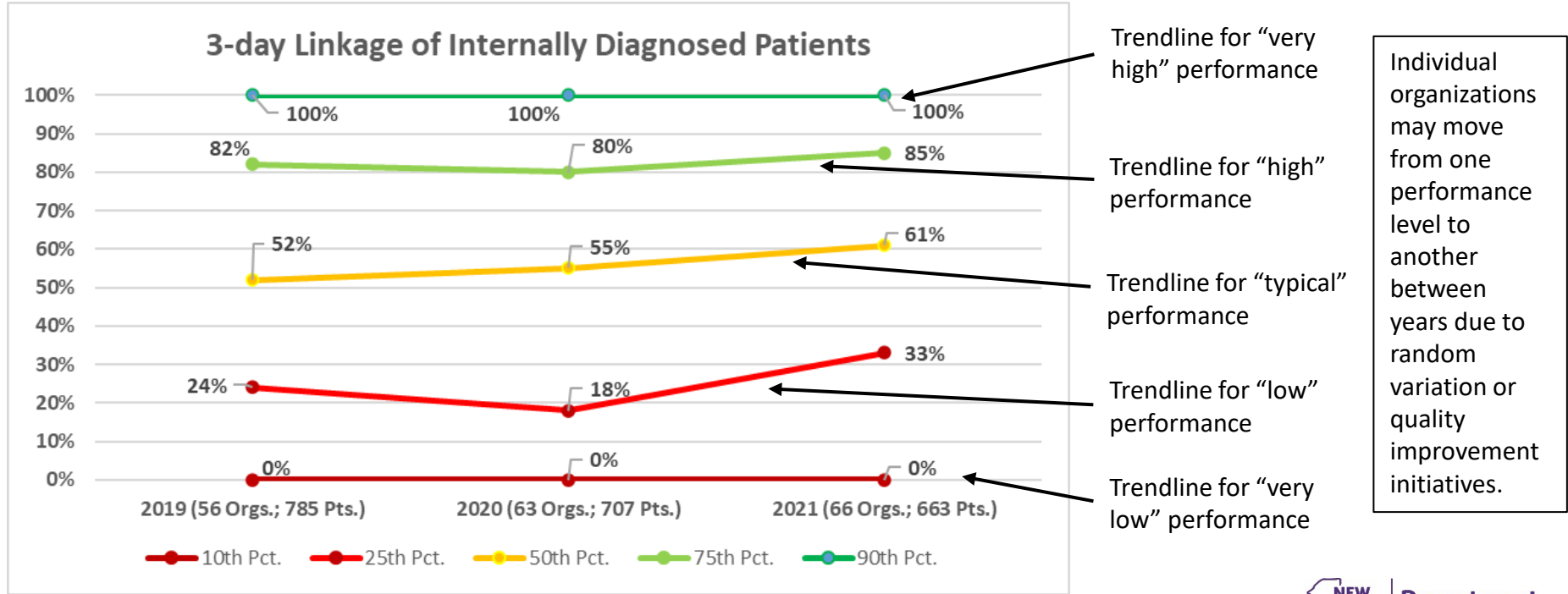# Indicator Summary – Review of Care Provided in 2021
Organization-level Benchmarks (without Health + Hospitals)

Indicator	Orgs.	Pts.	Mean	10th Pct	25th Pct	50th Pct	75th Pct	90th Pct
ARV Open Patients	75	79504	92%	74%	**93%**	97%	**99%**	100%
VL Testing Open Patients	75	79504	86%	56%	**82%**	94%	**97%**	100%
VL Suppression Open Patients	75	79504	73%	42%	**65%**	79%	**88%**	94%
ARV Established Active Pts.	75	54621	99%	97%	**98%**	99%	**100%**	100%
VL Testing Est. Active Pts.	75	54621	97%	94%	**96%**	98%	**100%**	100%
VL Suppression Est. Active Pts.	75	54621	84%	72%	**81%**	88%	**92%**	95%
ARV New to Care Pts.	70	4152	96%	86%	**95%**	100%	**100%**	100%
VL Testing New to Care Pts.	70	4152	94%	83%	**89%**	100%	**100%**	100%
VL Suppression New to Care Pts.	70	4152	69%	49%	**59%**	69%	**84%**	96%

Indicator Trends – Linkage to Care in 3 Days
Organization-level Benchmarks (No Health + Hospitals data)

3-day Linkage of Internally Diagnosed Patients

Trendline for "very high" performance

Trendline for "high" performance

Trendline for "typical" performance

Trendline for "low" performance

Trendline for "very low" performance

Individual organizations may move from one performance level to another between years due to random variation or quality improvement initiatives.

Legend: 10th Pct. — 25th Pct. — 50th Pct. — 75th Pct. — 90th Pct.

Each year, some organizations had as few as 1 or 2 newly diagnosed patients, making extreme scores more likely for this and other indicators applying to this caseload.

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Indicator Trends – Resistance Testing
Organization-level Benchmarks (Health + Hospitals included in 2019 and 2020)

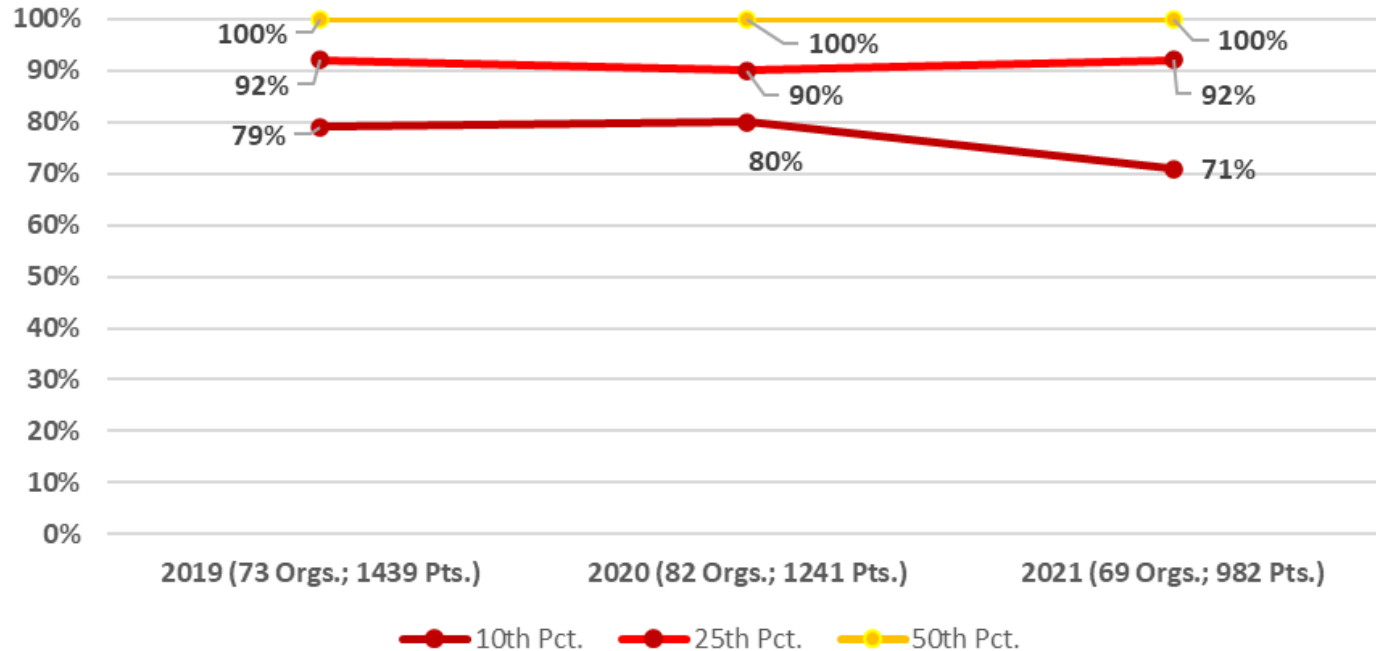Resistance Testing Among Active Newly Dx. Patients
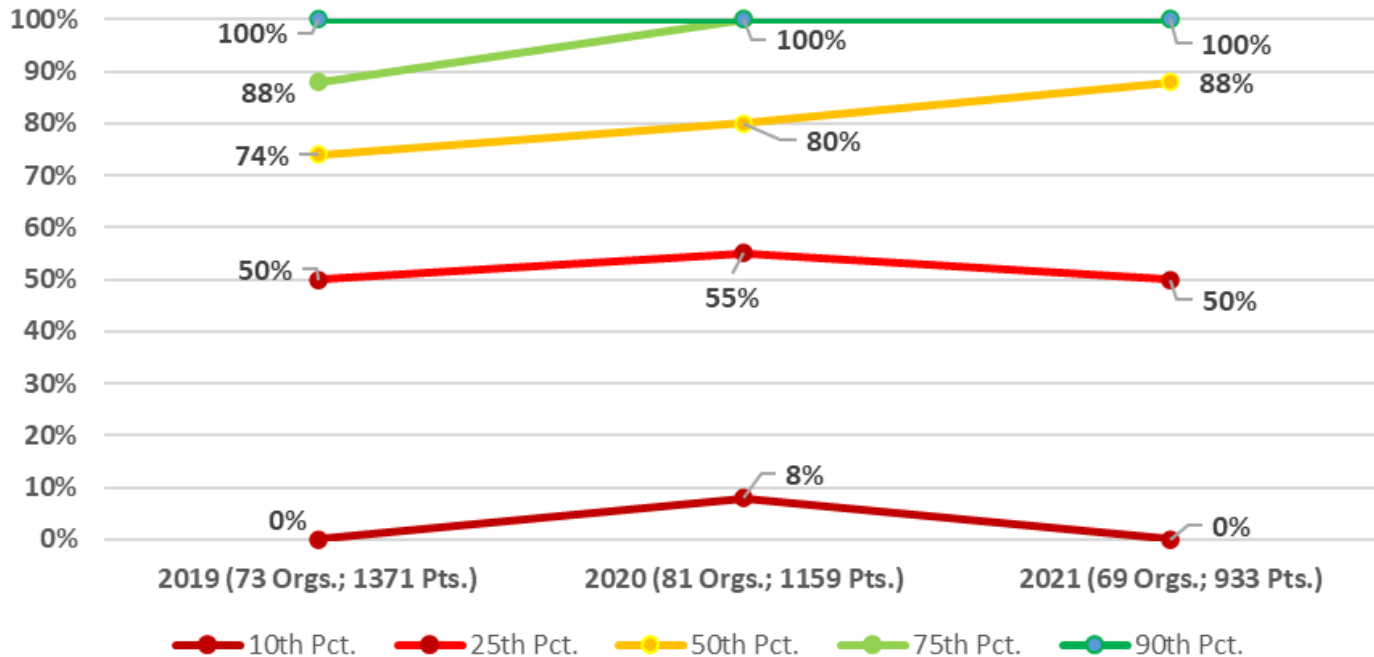
Indicator Trends – ARV Therapy, Newly Dx. Pts.
Organization-level Benchmarks (Health + Hospitals included in 2019 and 2020)

ARV Therapy Among Newly Diagnosed Patients

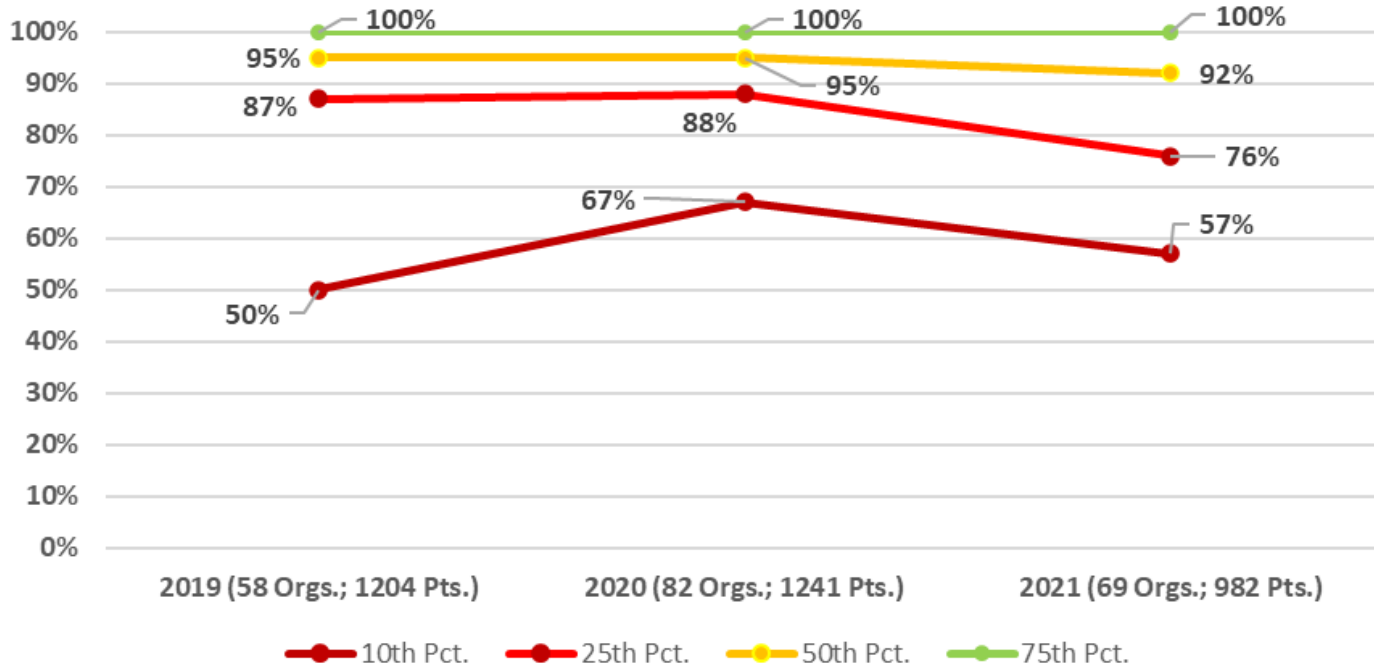75th and 90th percentile rates were also 100% for all 3 years.

Indicator Trends – VL Testing, Newly Diagnosed
Organization-level Benchmarks (Health + Hospitals Included in 2020 only)

VL Testing Among Newly Diagnosed Patients


90th percentile rates were also 100% for all 3 years.

Legend: 10th Pct. | 25th Pct. | 50th Pct. | 75th Pct.

X-axis: 2019 (58 Orgs.; 1204 Pts.) | 2020 (82 Orgs.; 1241 Pts.) | 2021 (69 Orgs.; 982 Pts.)

75th Pct.: 100%, 100%, 100%
50th Pct.: 95%, 95%, 92%
25th Pct.: 87%, 88%, 76%
10th Pct.: 50%, 67%, 57%

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Indicator Trends – VL Suppression, Newly Dx. Patients
Organization-level Benchmarks (Health + Hospitals Included in 2020 only)

VL Suppression Among Newly Diagnosed Patients
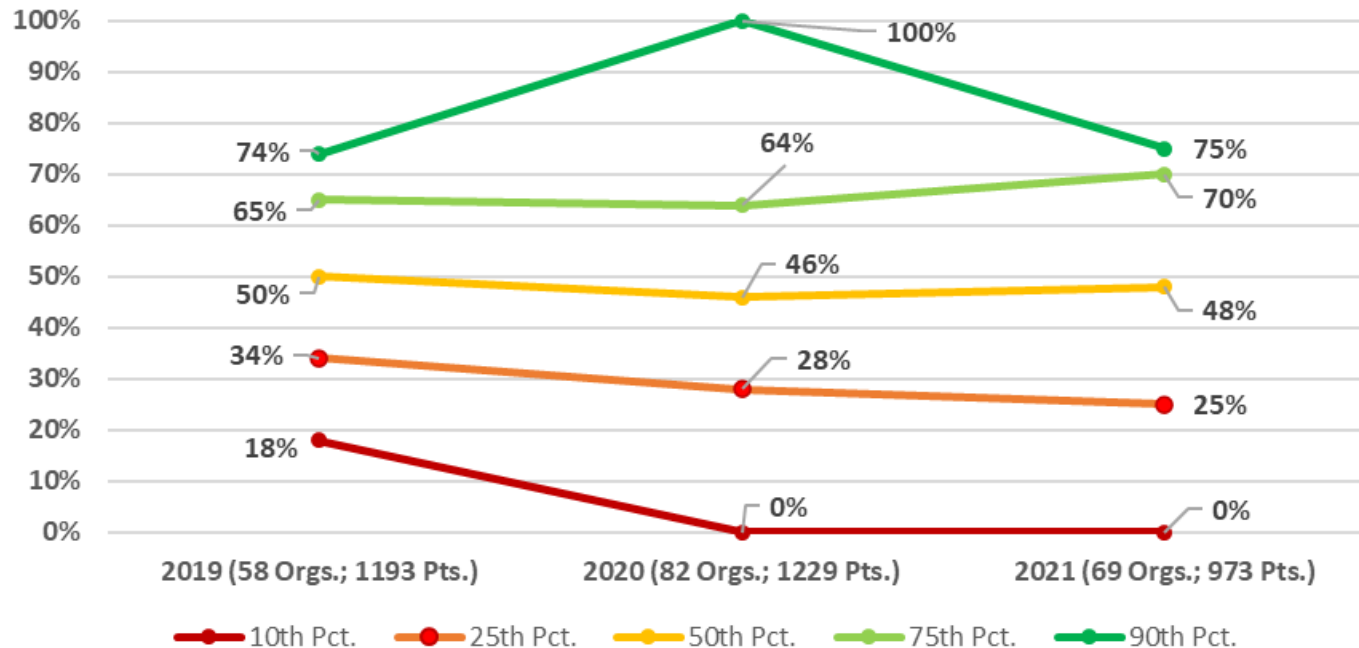
For indicators specific to newly diagnosed patients, rates of 0%, 25%, 33%, 50%, 67%, 75% or 100% are typically associated with caseloads of 6 or fewer patients.
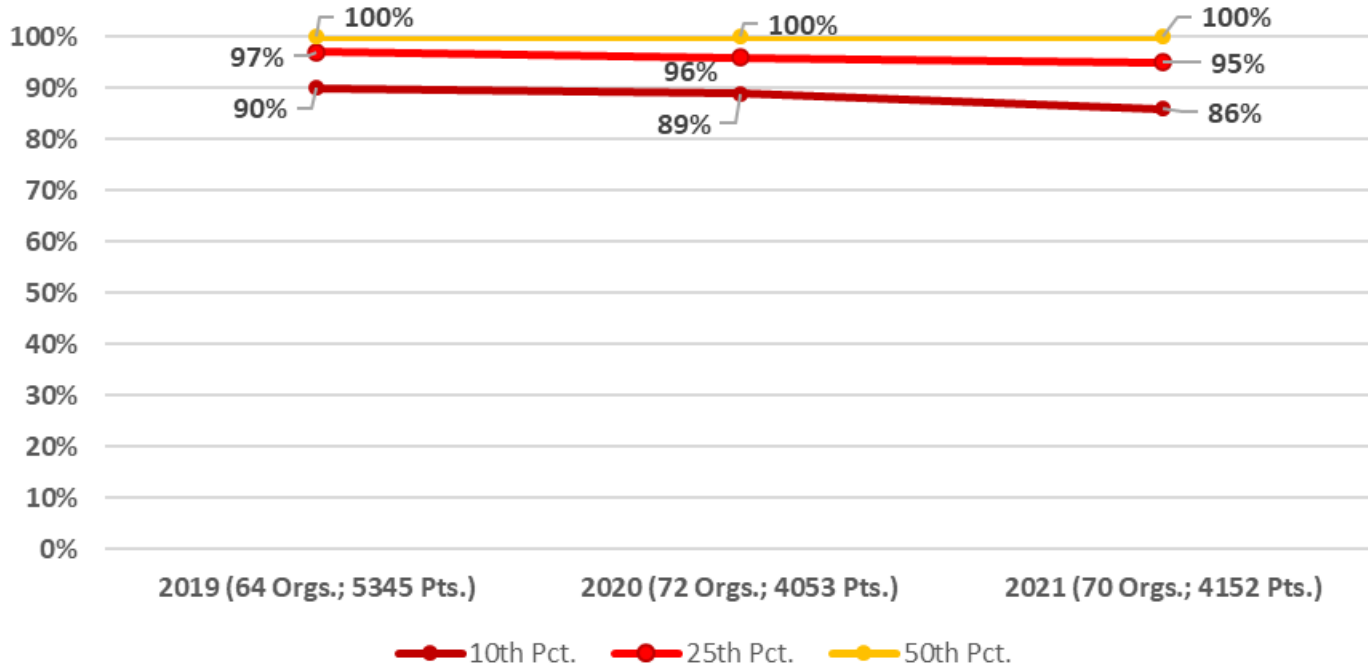
Indicator Trends – ARV Tx., Other New to Care Patients
Organization-level Benchmarks (No Health + Hospitals data)

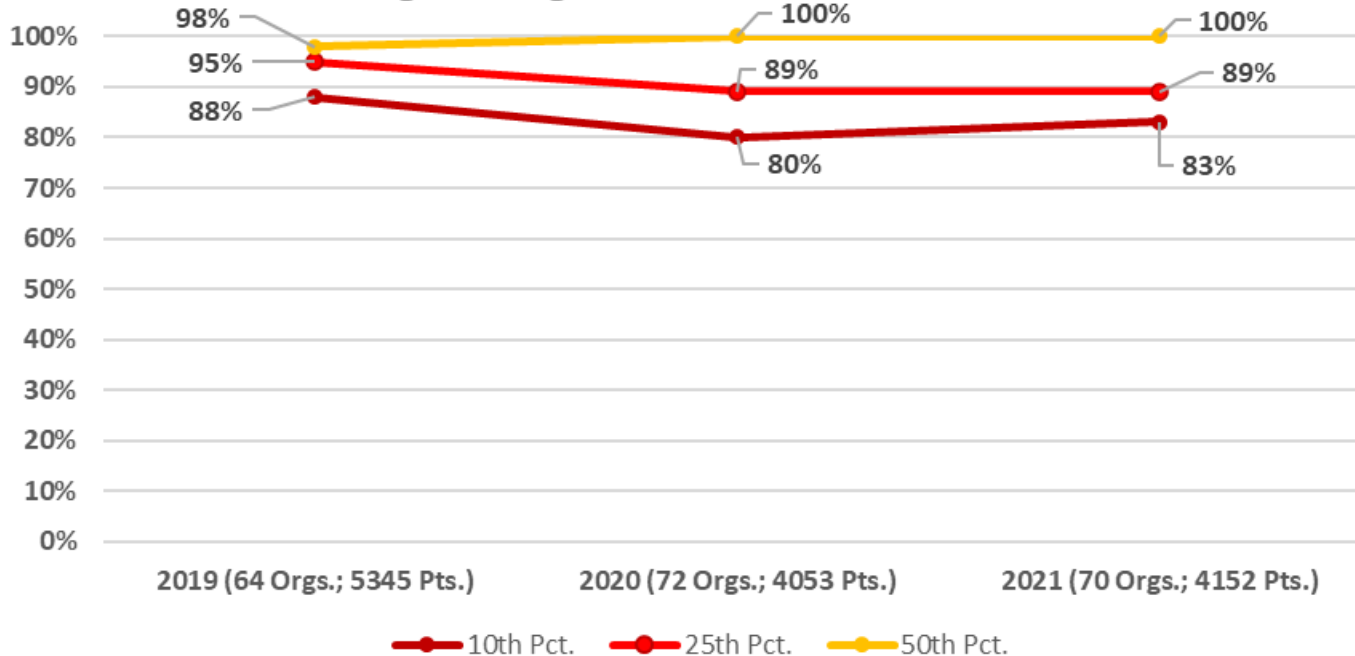ARV Therapy Among New-to-care Patients

75th and 90th percentile rates were also 100% for all 3 years.

Indicator Trends – VL Testing, Other New to Care
Organization-level Benchmarks (No Health + Hospitals data)

VL Testing Among New-to-care Patients

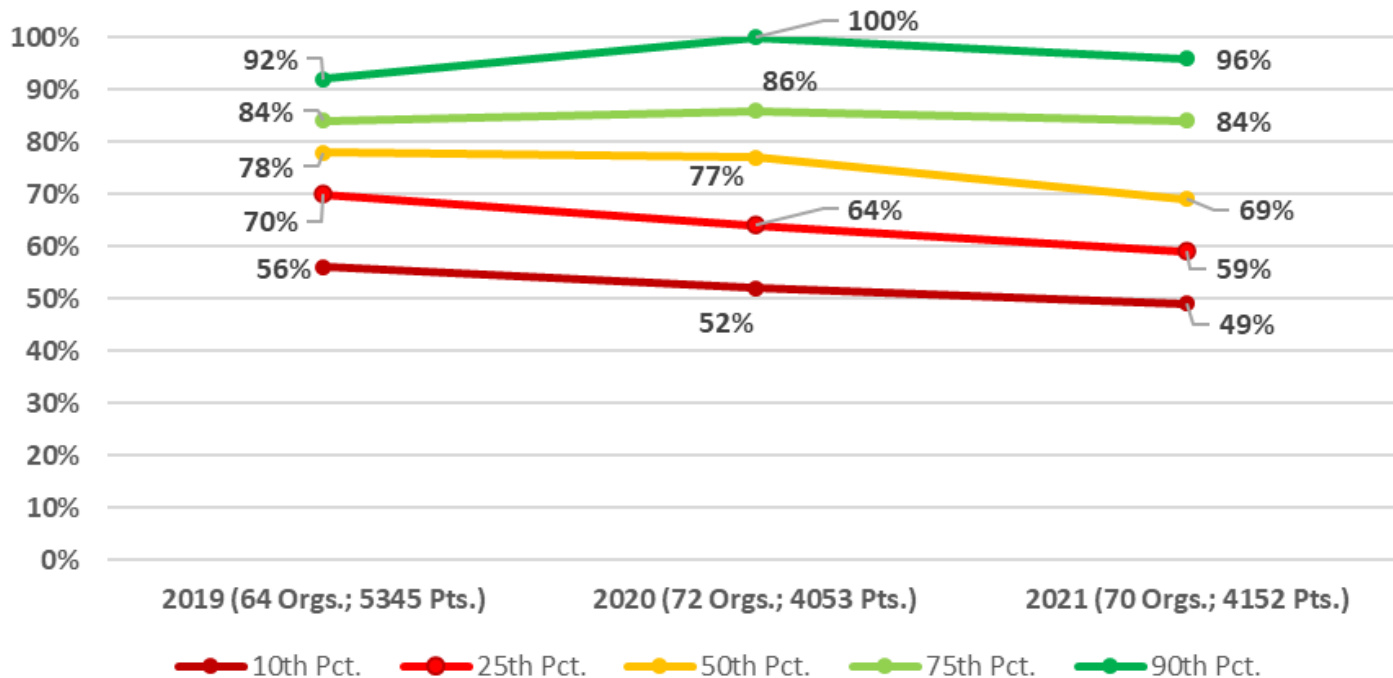75th and 90th percentile rates were 100% for all 3 years.

Indicator Trends – VL Suppression, Other New to Care
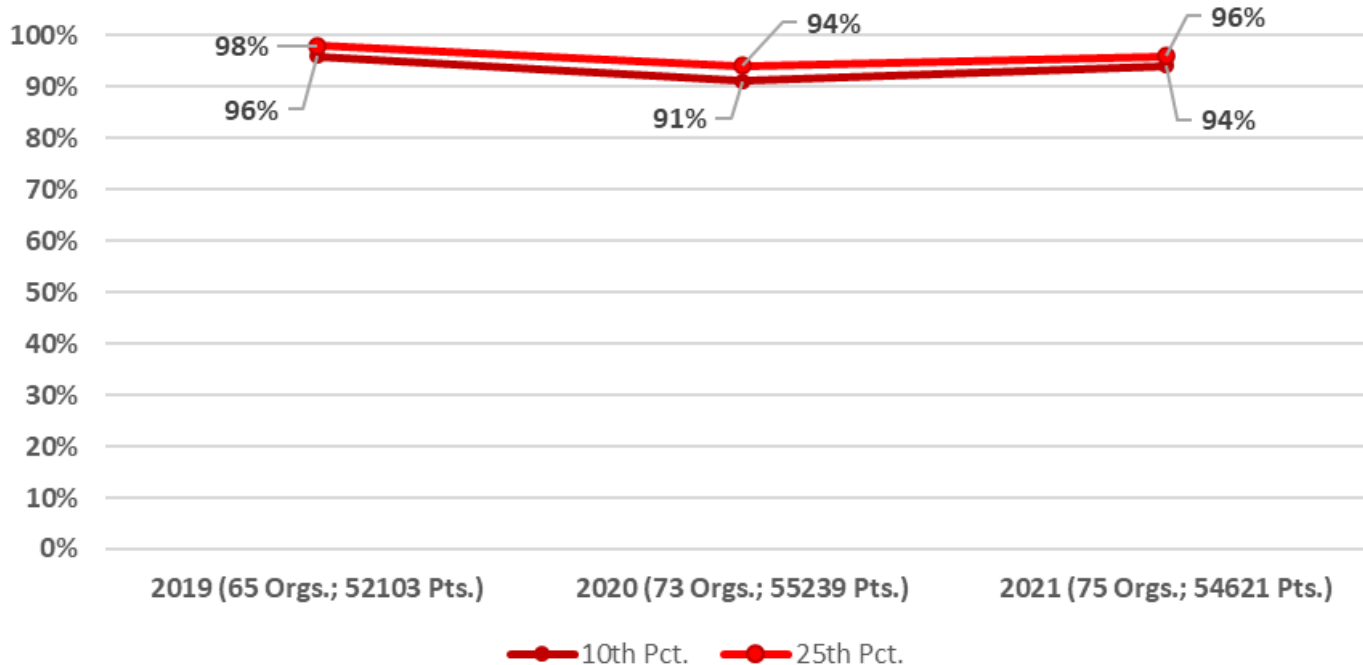## Organization-level Benchmarks (No Health + Hospitals data)

VL Suppression Among New-to-care Patients

Indicator Trends – VL Testing, Established Active
Organization-level Benchmarks (No Health + Hospitals data)

VL Testing Among Established Active Patients

50th, 75th and 90th percentile rates were at or above 97% for all 3 years.
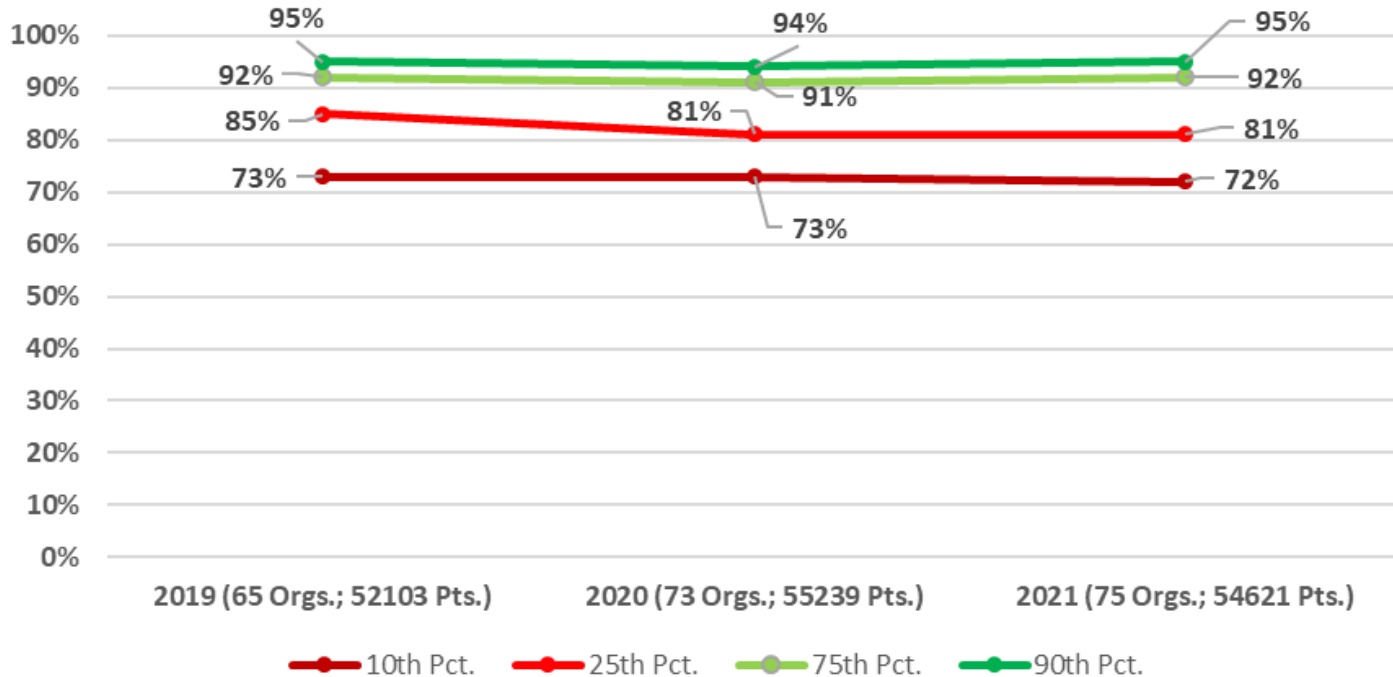
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Indicator Trends – VL Suppression, Established Active
Organization-level Benchmarks (No Health + Hospitals data)

VL Suppression Among Established Active Patients

50th percentile (median) rates not included due to space limitations.

QI Projects and Next Steps

Quality Improvement – Indicators Selected
Previously Diagnosed Patients

Indicator	Project 1	Project 2	Project 3	Total
ARV therapy among open patients	0	3	0	3
VL testing among open patients	2	0	0	2
VL suppression among open patients	10	6	0	16
ARV therapy among established active patients	0	0	1	1
VL testing among established active patients	2	2	0	4
VL suppression among established active patients	35	12	5	52
ARV therapy among new-to-care patients	0	0	0	0
VL testing among new-to-care patients	0	0	0	0
VL suppression among new-to-care patients	4	7	5	16
TOTAL	53	30	11	94

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Quality Improvement – Indicators Selected
Newly Diagnosed Patients

Indicator	Project 1	Project 2	Project 3	Total
3-day linkage of internally diagnosed patients	9	6	1	**16**
Resistance testing among active newly diagnosed patients	1	2	2	**5**
ARV therapy among newly diagnosed patients	1	2	1	**4**
VL testing among newly diagnosed patients	2	3	0	**5**
VL suppression among newly diagnosed patients	9	9	5	**23**
TOTAL	22	22	9	**53**

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Quality Improvement – Tools Being Used

QI Tool or Methodology	Number of Organizations
PDSA Cycle	63
Checklists	54
Flowcharts	44
Control/Run Chart	30
Cause and Effect Diagram	23
Driver Diagram	19
System of Profound Knowledge	18
Force Field Analysis	7
Pareto Analysis/Chart	7
TOTAL	265

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Next Steps – Data Analysis and Reporting

- Data Reporting
    - Clinic-level results and benchmark reports
    - New release on Health Data NY with breakout results by race, gender and other demographic factors
    - iART analysis
    - Comprehensive annual report featuring regression analysis incorporating site of care and patient-level factors such as race, gender and housing status
- Quality Reporting
    - Quality improvement report
    - Analysis of consumer involvement

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Next Steps – Preparation for Next Review
2023 Review of Care Provided in 2022

- Estimated Timeline
  - Final data specifications (December 2022/January 2023)
  - Updated reporting template (Febuary 2023)
  - Pilot testing (March 2023)
  - Review launch (April 2023)
  - Data submission (June 2023)

Thank you for your contributions to the cascade review!

Questions?
qocreviews@health.ny.gov