

Organizational HIV Treatment Cascade

Guidance for construction

Introduction

This guidance document provides organizations with the necessary tools and resources to construct their Organizational HIV Treatment Cascade. It synthesizes lessons learned in the development of facility-level treatment cascades and considers how these experiences can inform the development of organizational cascades in New York State. As part of the 2017 annual HIV Quality of Care Program Review, all organizations providing medical care to HIV-positive patients in NYS will be expected to submit their cascades as part of their annual QI data submissions to the New York State Department of Health AIDS Institute.

Background

The HIV Treatment Cascade

Ensuring that all PLWH receive high-quality medical care remains a top priority in combating the HIV/AIDS epidemic in the United States, yet achieving this goal remains a challenge. For providers to have an accurate understanding of the quality of care they are delivering to the HIV-positive population in their organizations, they must first develop the capacity to effectively collect, analyze, and visualize data on their performance. The HIV Treatment Cascade, when applied to a clinic population, allows providers to better identify the “leaks” along the pathway from linkage and engagement in care to viral load suppression, and to guide QI activities that aim to “patch” these leaks.

The Organizational HIV Treatment Cascade

Although the Cascade was originally developed to conceptualize population-level deficiencies in HIV care, it has recently been adapted to address the effectiveness of HIV treatment at the level of an individual organization. Created by the Office of the Medical Director at the NYSDOH AIDS Institute in support of Governor Andrew Cuomo’s three-point plan to end the AIDS epidemic in NYS by 2020, this adaptation provides organizations with a standardized tool to:

1. Monitor the extent and quality of care being delivered to *all* HIV-positive patients seen at an organization, and not just those that are actively engaged in their HIV program;
2. Identify gaps (“leaks”) in the sequences of steps between diagnosis and VLS as they are delineated by the Cascade; and
3. Develop data-driven plans to assess and improve these gaps through QI activities

Organizational cascades will be reviewed by Quality of Care Program staff in the Office of the Medical Director. Feedback will be provided to guide the integration of the cascades into organizations’ ongoing QI programs.

Cascade measures

Separate cascades for newly diagnosed patients and established patients

Organizations will be expected to submit two cascades: one for newly diagnosed patients, and one for established patients. If no newly diagnosed patients present to an organization within the measurement year, then that organization will not be required to submit a cascade for newly diagnosed patients.

Differentiating active and open caseloads

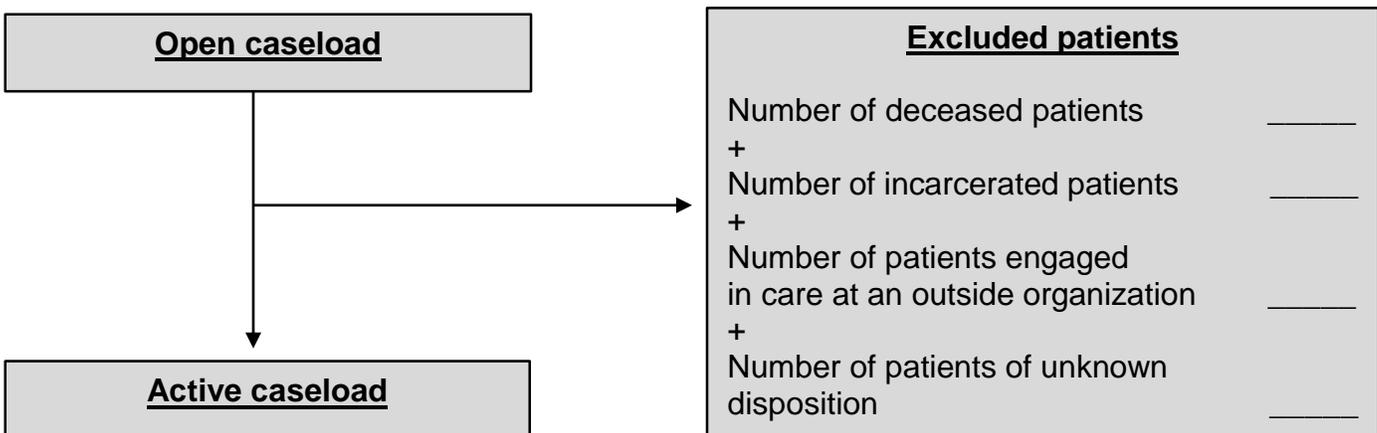
Organizations will be asked to make a distinction between their open and active caseloads to distinguish between HIV-positive patients who merely “touch” their organization from those who are actively engaged there. To underscore the relevance of this distinction, both an organization’s open and active caseloads should be displayed on an organization’s cascade.

Open caseload: Number of patients, regardless of age, with a known diagnosis of HIV who received services in the organization—whether routine, urgent, or emergent—during the measurement year (1/1/2016 through 12/31/2016).

Active caseload: Number of patients, regardless of age, with a known diagnosis of HIV who received services in the HIV program of the organization during the measurement year (1/1/2016 through 12/31/2016).

Calculating the active caseload

As part of their cascade submissions, organizations will be required to report the status of established patients that have been excluded from their active caseloads in their methodology report. Acceptable reasons for exclusion from the active caseload include patient death, incarceration, and confirmed engagement in HIV care at an outside organization during the measurement year. If patients cannot be excluded from the active caseload for any of these reasons, then their status must be reported as “unknown.” The following decision tree provides an example calculation of an organization’s active caseload.



Required measures

Each organization will be required to capture at least three measures in its cascades:

1. Linkage to HIV medical care;
2. Prescription of ART; and
3. Viral load suppression

Please note that a formal retention measure in the organizational cascade will not be required. Should an organization be interested in developing and tracking its own retention measure as part of its cascade, it is welcome to include one.

<u>Measure</u>	<u>Calculation for newly diagnosed patients cascade</u>	<u>Calculation for established patients cascade</u>
Linkage to HIV medical care	<p><i>Denominator:</i> Number of patients newly diagnosed with HIV during the measurement year.</p> <p><i>Numerator:</i> Number of patients who attended a routine HIV medical visit within 3 calendar days of diagnosis if linked to care within the organization, and within 5 calendar days of diagnosis if linked to care at an outside organization during the measurement year.</p>	Not applicable
Prescription of ART	<p><i>Denominator:</i> Number of patients newly diagnosed with HIV during the measurement year.</p> <p><i>Numerator:</i> Number of patients prescribed ART during the measurement year.</p>	<p><i>Denominator:</i> Number of patients in active caseload.</p> <p><i>Numerator:</i> Number of patients prescribed ART during the measurement year.</p>
Viral load suppression	<p><i>Denominator:</i> Number of patients newly diagnosed with HIV during the measurement year.</p> <p><i>Numerator:</i> Number of patients with a HIV viral load less than 200 copies/mL at last HIV viral load testing during the measurement year.</p>	<p><i>Denominator:</i> Number of patients in active caseload.</p> <p><i>Numerator:</i> Number of patients with a HIV viral load less than 200 copies/mL at last HIV viral load testing during the measurement year.</p>

Components of an effective cascade

How an organization chooses to visualize its cascade will ultimately depend on its target audience, as well as on how it intends to incorporate its cascade into ongoing QI activities. This section highlights required and optional components of the cascade visualizations. Ultimately, organizations will decide for its own the format that is most useful to them. An effective cascade need not fit a generic mold as long as it presents, in an accurate and readily understandable fashion, all required components. Examples of cascades, with annotations highlighting key components, can be found at the end of this document. Each organizational team is encouraged to maximize its creativity in the process of visualizing its cascades.

<u>Required component</u>	<u>Description</u>
✓ Title	Title is presented in an easy-to-read font, specifying the patient population being captured (newly diagnosed or established) and the year from which data are drawn.
✓ Axes	Axes, where used, are clearly labeled in an easy-to-read font with applicable units clearly displayed.
✓ Legend	Legend includes definitions and sources for all measures featured in the cascade, and is reported in non-technical language that is understandable to all stakeholders.
✓ Case load	Case volume (open AND active cases) is clearly displayed for established patients to facilitate easy comparison of cascade measures.
✓ Breakdowns by care site	For organizations with multiple sites of care, site-specific measures are calculated and presented to enable organization-wide comparisons.
✓ Measures	Required measures are presented clearly with easy-to-read labels. Proportions and raw figures are presented to indicate the relationship of measures to denominators, and to specify the number of patients captured by each measure.
<u>Optional component</u>	<u>Description</u>
✓ Performance benchmarks	Performance benchmarks derived from internal, state, or national HIV treatment goals are meaningfully incorporated into the cascade.
✓ Breakdowns by key population	Population-specific measures are calculated to enable comparisons between subpopulation and organization-wide performance.
✓ Measures	Optional measures are presented clearly with easy-to-read labels.

Reporting methodology

For cascades to be fully understandable to external and internal stakeholders, the methodology underlying their construction must be transparently reported. Organizations will therefore be asked to describe, in a document separate from their cascade visualizations, detailed answers to the following questions:

- ✓ What were the sources of the data used in the cascade and why were they chosen? What were some of the limitations specific to each data source?
- ✓ How were the organization's open and active caseloads differentiated and subsequently extracted from the data source? How many patients were identified as deceased? How many were identified as incarcerated? How many were identified as in care at an outside organization? How many were identified as having an unknown disposition?
- ✓ Who within the organization was involved in extraction, analysis, and presentation of cascade data?
- ✓ How was the status of patients linked to, or engaged in, HIV care at an outside organization verified? How was the status of deceased and incarcerated patients determined?

Developing an improvement plan

To be maximally useful, the organizational HIV treatment cascade should be incorporated into an organization's broader improvement activities surrounding HIV treatment. Accordingly, organizations will be asked to submit an improvement plan that analyzes gaps identified in the cascade to develop a formal strategy that addresses these gaps through their quality management program. At a minimum, their improvement plan should include the following:

- ✓ A detailed description of the gaps in care that are revealed by the cascade. This description should cite specific data and explain how these indicate suboptimal outcomes in the context of internal, state, and/or national HIV treatment performance goals.
- ✓ A list of improvement goals that are specific, measurable, time-bound, and relevant to HIV-positive patients. This list should include descriptions of proposed action steps to achieve these goals, as well as timelines for projected completion of action steps.
- ✓ A detailed description of how each of the improvement goals will be evaluated, and the time frame within which measurable improvements are expected.
- ✓ A roster of organization staff that will be responsible for execution of the proposed improvement plan.

Frequently asked questions

Whom do I contact with questions or requests for clarification?

Questions or requests for clarification can be directed to gocreviews@health.ny.gov, where they will be addressed by a staff member from the Quality of Care Program.

What are the required components of a successful submission?

A successful submission will include up to four documents: (1) a cascade for established patients; (2) a cascade for newly diagnosed patients (if applicable); (3) a narrative description of methodology; and (4) an improvement plan.

When is the due date for submissions? Where will organizational cascade be submitted?

Submissions are due by 11:59 PM on Friday, March 31, 2017. Submissions must be sent as email attachments to gocreviews@health.ny.gov. Please note that submissions sent by regular mail will not be accepted.

Will additional guidance be provided beyond this document?

NYS Quality of Care Program staff will be holding webinars and virtual office hours throughout the months of December, January, and February to assist organizations with any questions they may have. Program staff will also be available, on a limited basis, to provide one-on-one technical assistance to organizations with significant needs.

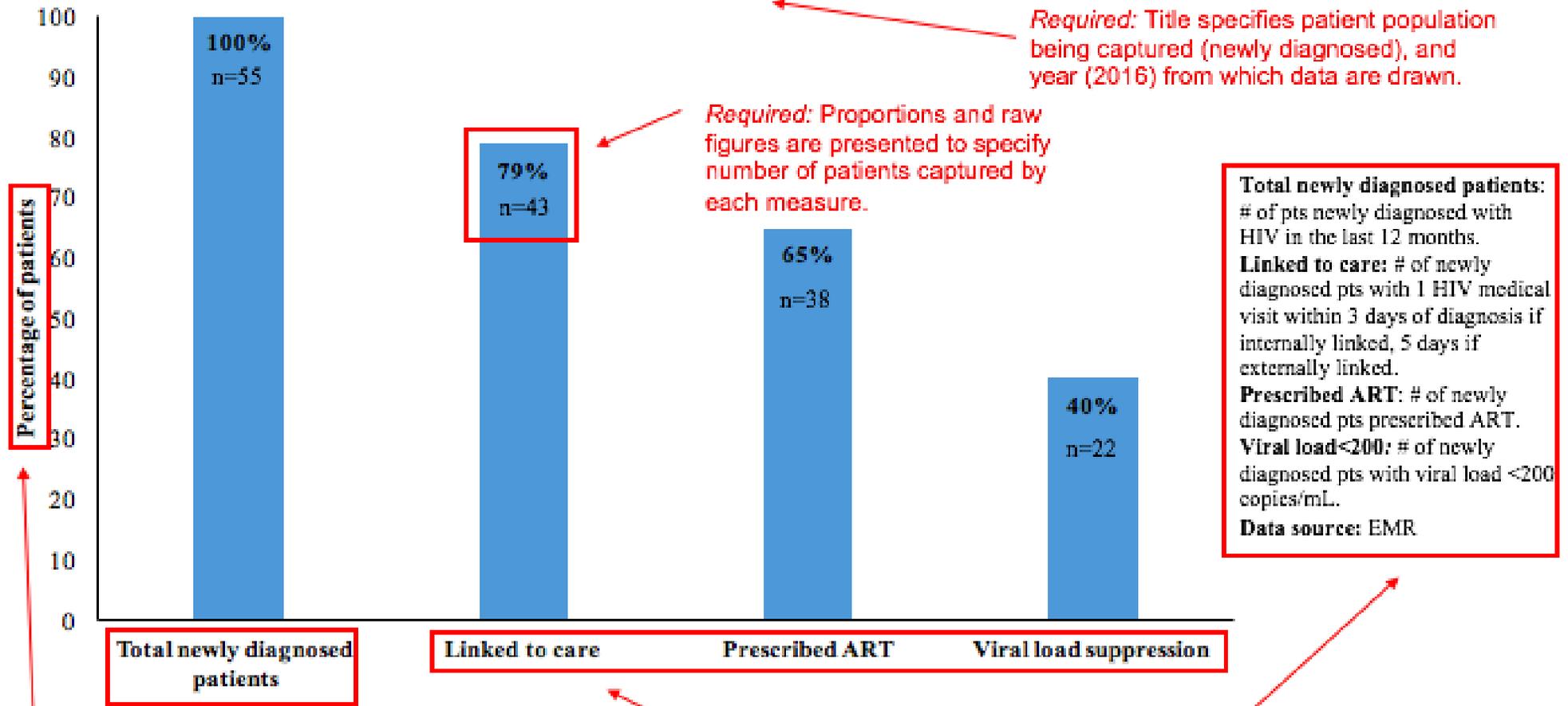
Where can I go to find resources on creating an improvement plan?

NYS Quality of Care Program staff will be holding webinars and virtual office hours on this topic. Organizations are also encouraged to consult existing resources available through HRSA and the Institute for Healthcare Improvement.

How will organizational cascades be evaluated?

Following submission, organizational cascades will be evaluated by quality improvement specialists associated with the NYS Quality of Care Program, and feedback will be provided. Ongoing technical assistance will be available to help organizations refine their improvement strategies.

HIV Care Cascade for Newly Diagnosed Patients (2016)



Required: Title specifies patient population being captured (newly diagnosed), and year (2016) from which data are drawn.

Required: Proportions and raw figures are presented to specify number of patients captured by each measure.

Total newly diagnosed patients: # of pts newly diagnosed with HIV in the last 12 months.
Linked to care: # of newly diagnosed pts with 1 HIV medical visit within 3 days of diagnosis if internally linked, 5 days if externally linked.
Prescribed ART: # of newly diagnosed pts prescribed ART.
Viral load <200: # of newly diagnosed pts with viral load <200 copies/mL.
Data source: EMR

Percentage of patients

Total newly diagnosed patients

Linked to care Prescribed ART Viral load suppression

Required: Axes are clearly labeled.

Required: Case volume is clearly displayed for newly diagnosed patients.

Required: Required measures are presented clearly with easy-to-read labels.

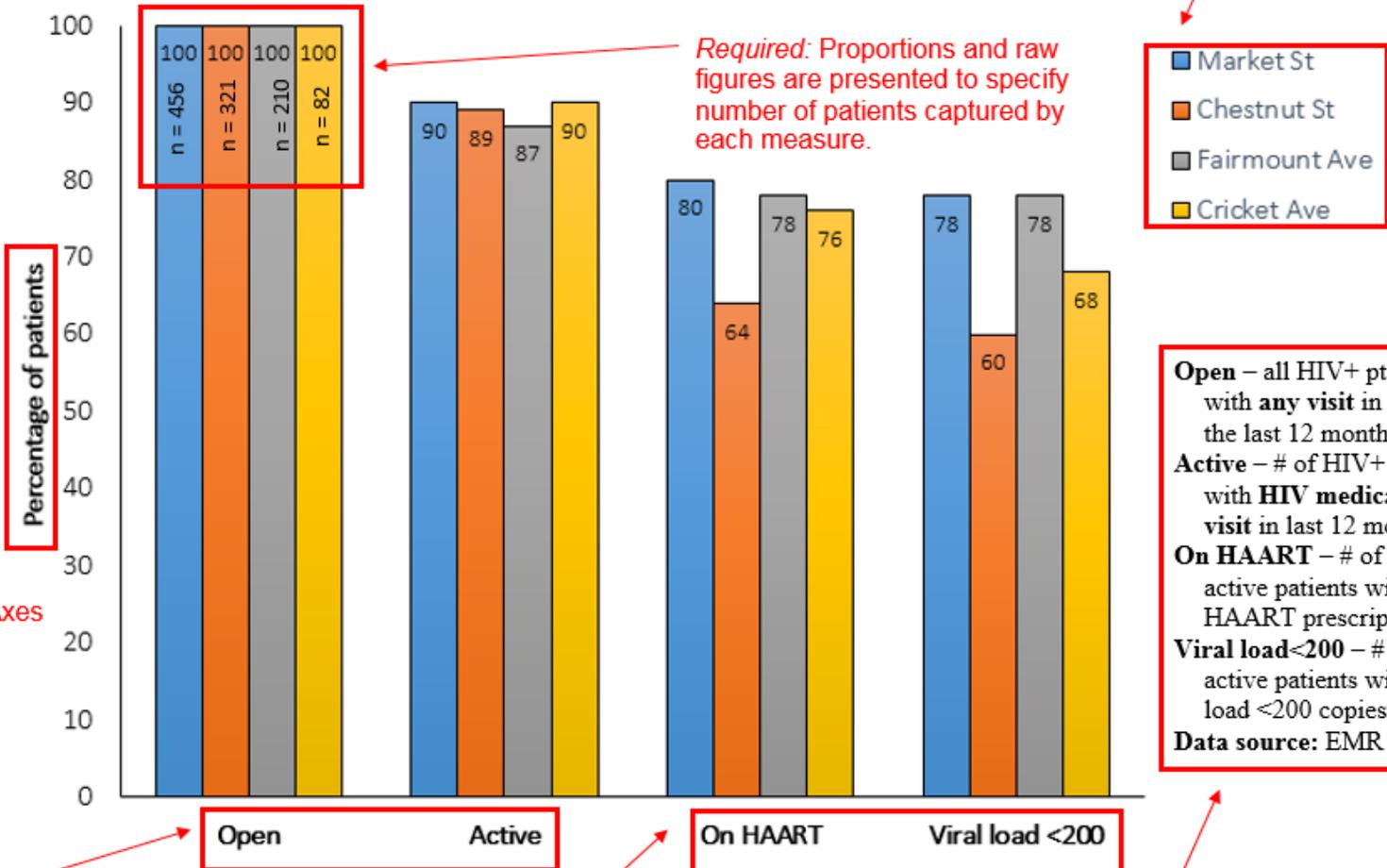
Required: Legend includes definitions and data sources for all measures featured in the cascade.

Required: Title specifies patient population being captured (established), and year (2016) from which data are drawn.

HIV Care Cascade – Established Patients, FY 2016

Southwest Hospitals and Clinics

Required: Breakdowns by site are made for organizations with multiple sites of care.



Required: Proportions and raw figures are presented to specify number of patients captured by each measure.

Legend:

- Market St
- Chestnut St
- Fairmount Ave
- Cricket Ave

Open – all HIV+ pts with any visit in the last 12 months
Active – # of HIV+ pts with HIV medical visit in last 12 months
On HAART – # of active patients with HAART prescription
Viral load <200 – # of active patients with viral load <200 copies/mL
Data source: EMR

Required: Axes are clearly labeled.

Required: Case volume (open AND active cases) is clearly displayed for established patients.

Required: Required measures are presented clearly with easy-to-read labels.

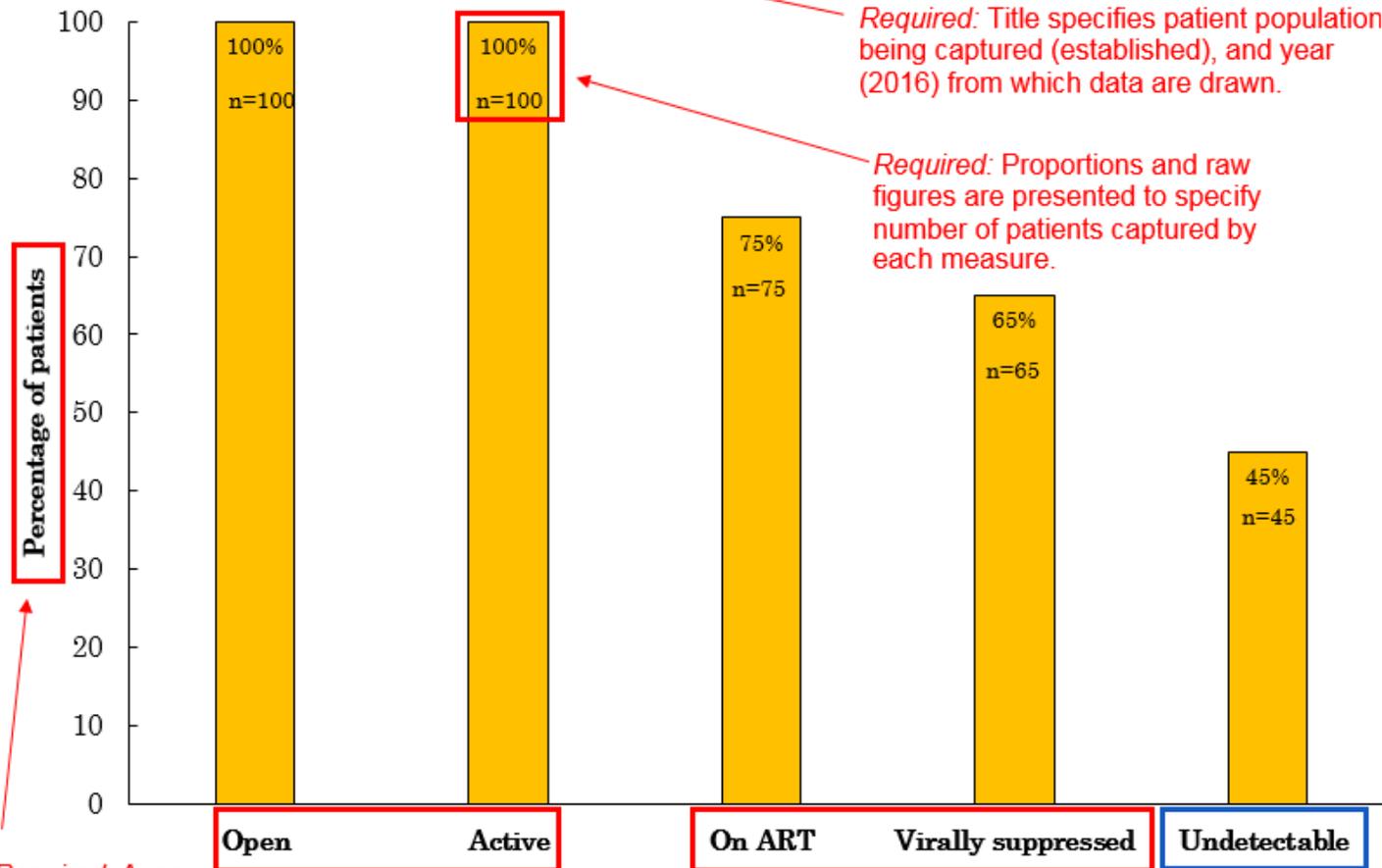
Required: Legend includes definitions and data sources for all measures featured in the cascade.



HIV Care Cascade, Established Patients, 2016

MiddleWEST Health System

Required: Legend includes definitions and data sources for all measures featured in the cascade.



Required: Title specifies patient population being captured (established), and year (2016) from which data are drawn.

Required: Proportions and raw figures are presented to specify number of patients captured by each measure.

Open – all HIV+ pts with any visit in the last 12 months
Active – # of HIV+ pts with HIV medical visit in last 12 months
On ART – # of active patients with ART prescription
Virally suppressed – # of active patients with viral load <200 copies/mL
Undetectable – # of active patients with viral load <50 copies/mL.
Data source: EMR

Breakdown (MSM of color)
n=25

On ART
18/25 (72%)

Virally suppressed
15/25 (60%)

Undetectable
10/25 (40%)

Required: Axes are clearly labeled.

Required: Case volume (open AND active cases) is clearly displayed for established patients.

Required: Required measures are presented clearly with easy-to-read labels.

Optional: Optional measures (undetectable) are presented clearly with easy-to-read labels.

Optional: Breakdowns by key population (MSM of color) are provided.