USING A QUALITY IMPROVEMENT COHORT MODEL TO ACHIEVE HEALTH EQUITY

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OBJECTIVES

- Describe a Metro Detroit quality improvement cohort project to improve viral suppression among persons living with HIV
- Describe the interprofessional approach used in implementing this quality improvement project
- Provide tools that help programs define key populations independent of morbidity

RYAN WHITE PROGRAM

- A federal government program that provides medical care and other services to help uninsured or underinsured people living with HIV
- Detroit Health Department has been the Grantee for the Part A Program since 1992
- Annual budget of approximately $10M

RYAN WHITE PROGRAM ELIGIBILITY

- To receive assistance, individuals must:
  - Live in the Detroit Metropolitan Area:
    - Lapeer, Macomb, Monroe, Oakland, St. Clair, and Wayne Counties (including City of Detroit)
  - Be HIV positive
  - 450% of federal poverty level

RYAN WHITE PART A SERVICES

- **Early Intervention Services**
- Emergency Financial Assistance
- Food Bank/Home Delivered Meals
- **Home and Community-Based Health Services**
- **Health Insurance Premium and Cost Sharing Assistance**
- Housing Services
- Legal Services
- **Medical Case Management**
- **Medical Nutrition Therapy**
- Medical Transportation Services
- **Mental Health Services**
- Non-medical Case Management
- **Outpatient and Ambulatory Medical Care**
- Psychosocial Support Services

- 15 providers including:
  8 clinics &
  7 community-based organizations

Services in bold are core medical services

HOW THE PART A PROGRAM MEASURES HEALTH OUTCOMES

- **The HIV Care Continuum** (aka Treatment Cascade) was developed by the CDC to assess gaps in care
- It is a model that outlines the sequential steps or stages of HIV medical care that people living with HIV go through from initial diagnosis to achieving the ultimate goal of viral suppression (low level of HIV in the body)

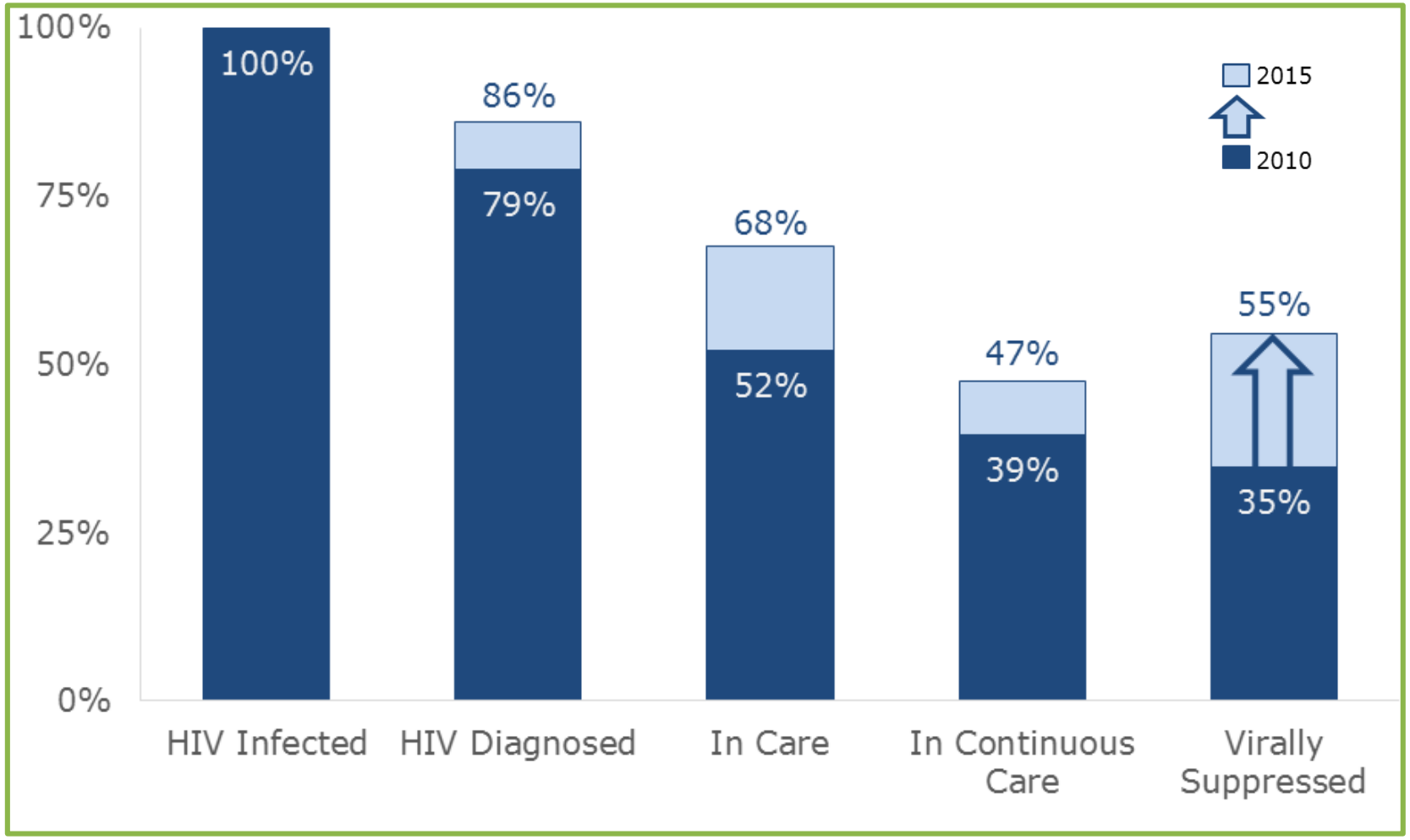
GOALS OF HIV TREATMENT

Source: www.hiv.gov

CARE CONTINUUM DEFINITIONS

- **HIV Infected:** Persons aware and unaware of their infection. This frequency is calculated using the national estimate that 14% of PLWH are unaware of their infection (not diagnosed)
- **Diagnosed with HIV**: Persons diagnosed with HIV
- **In Care**: persons living with HIV (PLWH) with at least one CD4, viral load (vl) or genotype lab test during the year
- **In Continuous Care:** PLWH who received at least two CD4, vl or genotype lab tests at least three months apart during the given year
- **Virally Suppressed**: PLWH with less than or equal to 200 copies of HIV virus per milliliter of blood

METRO DETROIT CARE CONTINUUM, 2010-2015

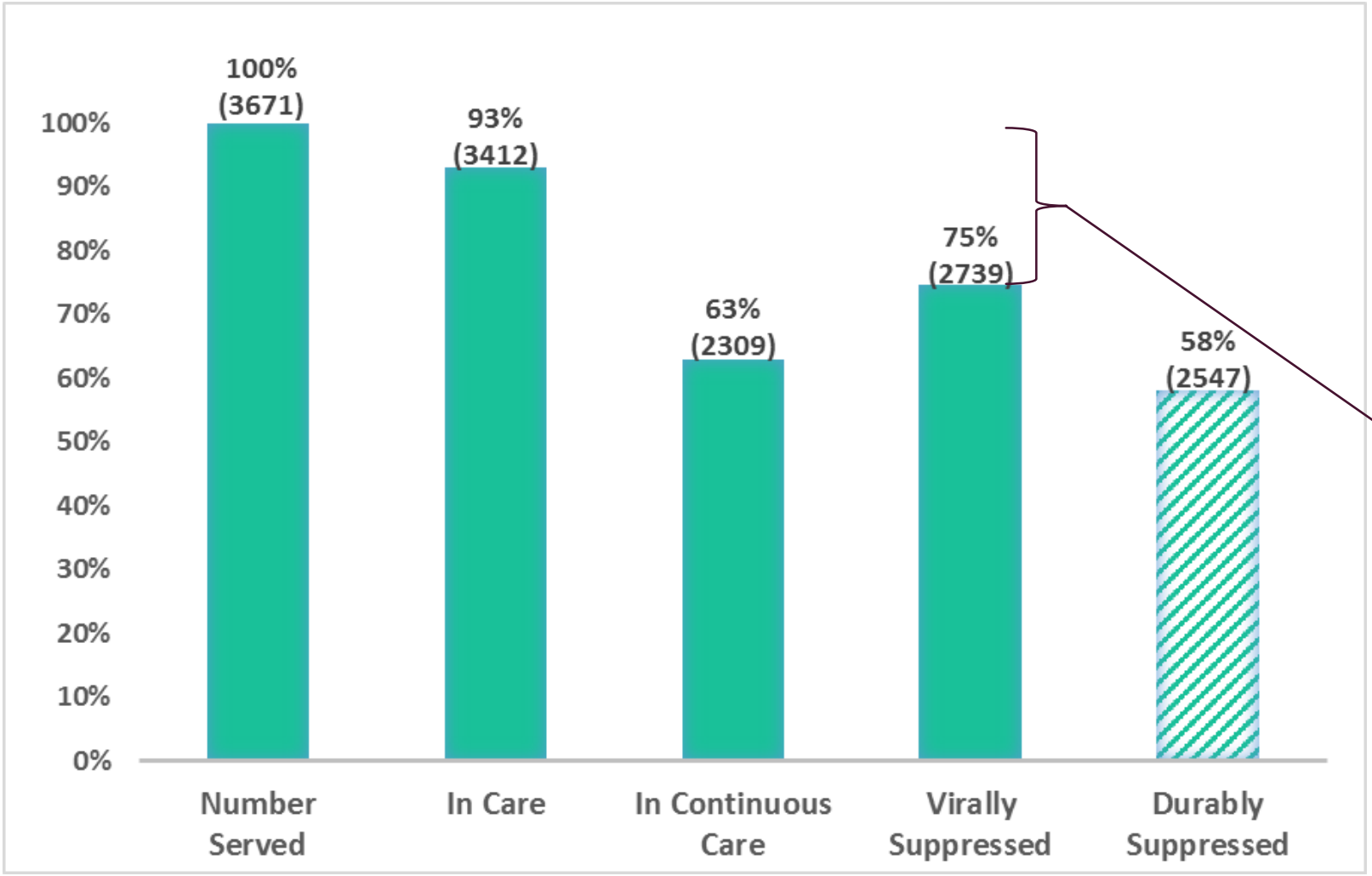


- Surveillance data
- Viral suppression has increased from 2010 (35%) to 2015 (55%) in Metro Detroit!
- There is still a lot of work to do in reaching the national goals.

DISPARITIES FOR METRO DETROIT

- Less likely to be virally suppressed
  - Youth (ages 13-19)
  - Transgender persons
  - People who inject drugs
  - Females 30-39

RYAN WHITE PART A CARE CONTINUUM, 2016



- Service data (CAREWare)
- Viral suppression is higher for Part A clients (75%) than Metro Detroit overall
- However, there are still 25% of clients that are not virally suppressed!

The Quality Cohort project focuses on this 25%

2017 QUALITY COHORT

IDENTIFIED THE COHORT

- **584** Ryan White Part A clients served in 2016 that were not virally suppressed at their last viral load
  - On January 10th the Viral Load performance measure was ran for all clients in CAREWare (with a RW Part A service in 2016)
  - All clients with a viral load greater than 200 copies/mL were designated in CAREWare as in the **2017 Quality Cohort**

- This may seem like a large number however we have 12 agencies focusing on this group, with over $7 M in funding

DEVELOPED MECHANISM TO TRACK COHORT

- Used our current data system (CAREWare)
  - CAREWare allows for easy grouping of clients
  - We already systematically track many demographic factors and health outcomes in CAREWare (i.e., gender, age, risk factors, race, insurance status, in-care status)

CAREWARE REPORTS

Cohort List

Who is in the Cohort

- Name
- Gender
- Age
- HIV Risk Factor
- Race/Ethnicity
- Income

- Last Primary Insurance
- Viral Load Lab Date & Value

Cohort List_Viral Load %

- This allows clinics/agencies to see their progress whenever they want

Percentage of the Cohort that is Suppressed

SET GOALS

- To increase viral suppression among the Quality Cohort from **0%** to **50%** by December 31, 2017
- To increase viral load suppression among Ryan White Part A clients from **82%** to **90%** by December 31, 2017

PRIORITIZED COHORT LIST

- Disparity calculator provided by the National Quality Center that utilizes statistical methods to compare viral load suppression among four sub-populations:
  - Transgender People
  - Men who have sex with men (MSM) of Color
  - African American & Latina Women
  - Youth (13-24)
- The calculator compares the viral load performance of each subgroup to the overall viral load of the population (all clients at an agency) and determines if a disparity exists

DISPARITY CALCULATOR- THREE OUTCOMES

- **No disparity:** compared to the entire population this sub-group does not have a disparity
- **Yes there is a disparity**: compared to the entire population a disparity does exist for this subgroup. Agencies should focus on clients in this subgroup
- **There may be a disparity:** compared to the entire population there is not enough significance to say that a disparity exists but this subgroup should be monitored

This information helps you choose which groups to focus on for improvement projects.

This tool is available at: http://enddisparitiesexchange.org

DISPARITY CALCULATOR TOOL

Measurement Period: 10/1/2015 - 9/30/2016
Reporting Date: 11.23.2016
Data Source(s): CAREWare

NQC Disparities Calculator

NATIONAL QUALITY CENTER

Aggregated Data For Disparities Analysis	# of Agencies in Dataset	Viral Suppression (HAB)			Medical Visit Frequency (HAB)			Data Limitations / Comments
		Num.	Denom.	%	Num.	Denom.	%	
Total				#DIV/0!			#DIV/0!	not applicable
Transgender People	0			#DIV/0!			#DIV/0!	not applicable
MSM of Color	0			#DIV/0!			#DIV/0!	not applicable
African American and Latina Women	0			#DIV/0!			#DIV/0!	not applicable
Youth (aged 13-24)	0			#DIV/0!			#DIV/0!	not applicable

Complete the fields that have red boxes and blue text. All calculations throughout the workbook are driven by these data.

Your contact information and timeframe information is important context for inclusion with your QI Project.

For more information on the disparities analysis resources, visit http://enddisparitiesexchange.org/portfolio_item/resource-one/.

For questions related to this workbook or calculating disparate impact, contact Michael Hager - Michael@NationalQualityCenter.org.

The values of rows 9-12 are independent of each other and will not add up to equal the total in row 8. Total in row 8 represents overall clinic/organization population.

The worksheet was developed by NQC in consultation with HAB and partners in the field.

This worksheet is for quality improvement purposes only.

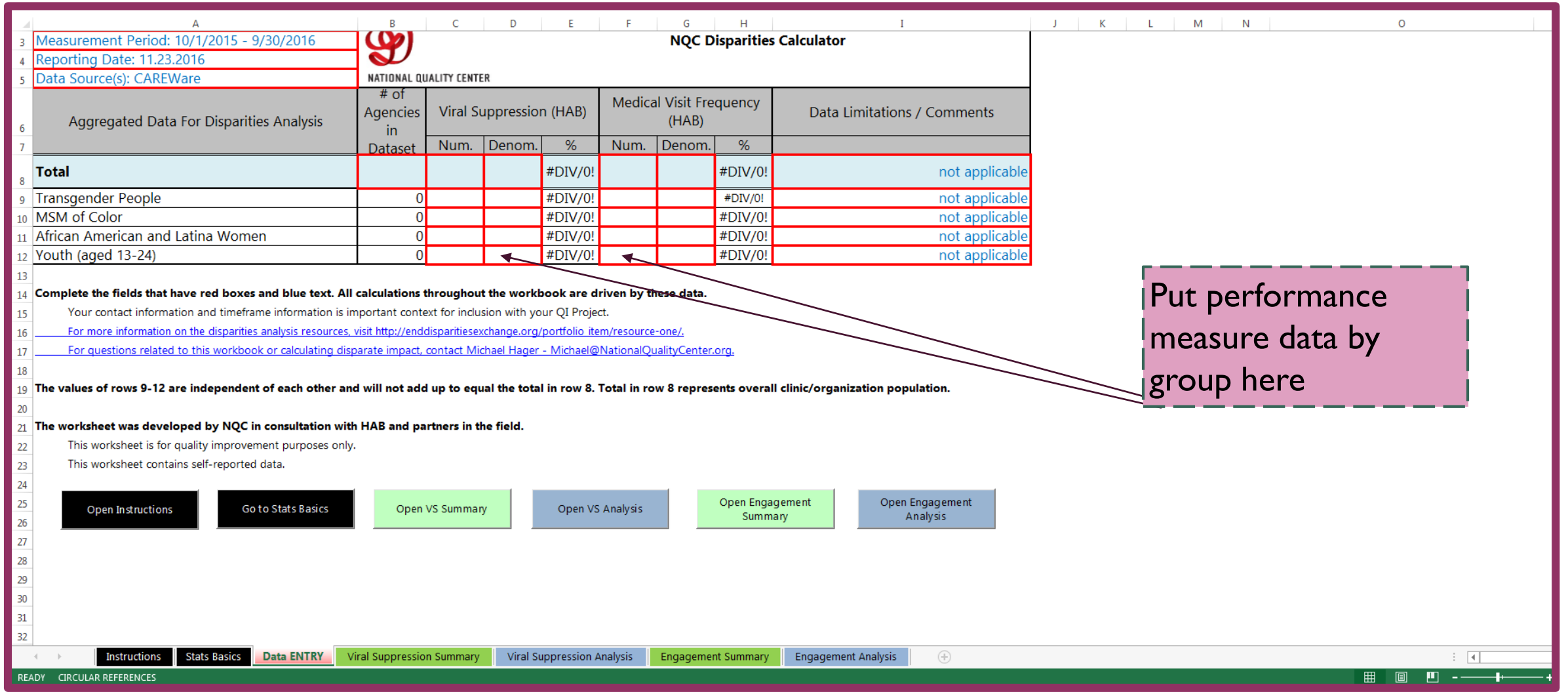
This worksheet contains self-reported data.

Open Instructions | Go to Stats Basics | Open VS Summary | Open VS Analysis | Open Engagement Summary | Open Engagement Analysis

Instructions | Stats Basics | Data ENTRY | Viral Suppression Summary | Viral Suppression Analysis | Engagement Summary | Engagement Analysis

READY CIRCULAR REFERENCES

DISPARITY CALCULATOR TOOL



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NATIONAL QUALITY CENTER

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		Num.	Denom.	%	Num.	Denom.	%	
Total				#DIV/0!			#DIV/0!	not applicable
Transgender People	0			#DIV/0!			#DIV/0!	not applicable
MSM of Color	0			#DIV/0!			#DIV/0!	not applicable
African American and Latina Women	0			#DIV/0!			#DIV/0!	not applicable
Youth (aged 13-24)	0			#DIV/0!			#DIV/0!	not applicable

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Instructions | Stats Basics | Data ENTRY | Viral Suppression Summary | Viral Suppression Analysis | Engagement Summary | Engagement Analysis

READY CIRCULAR REFERENCES

Put performance measure data by group here

DISPARITY CALCULATOR TOOL

Name of Reporting Agency: RW Part A Primary Care A
Name of Staff Person Reporting:
Measurement Period: 1.01.2016 - 12.31.2016
Reporting Date: 1.27.2016
Data Source(s): CAREWare

NATIONAL QUALITY CENTER

NQC Disparities Calculator

Aggregated Data For Disparities Analysis	# of Agencies in Dataset	Viral Suppression (HAB)			Medical Visit Frequency (HAB)			Data Limitations / Comments
		Num.	Denom.	%	Num.	Denom.	%	
Total		939	1150	81.65%			#DIV/0!	not applicable
Transgender People	0	13	16	81.25%			#DIV/0!	not applicable
MSM of Color	0	429	533	80.49%			#DIV/0!	not applicable
African American and Latina Women	0	279	334	83.53%			#DIV/0!	not applicable
Youth (aged 13-24)	0	23	33	69.70%			#DIV/0!	not applicable

Complete the fields that have red boxes and blue text. All calculations throughout the workbook are driven by these data.

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Open Instructions | Go to Stats Basics | Open VS Summary | Open VS Analysis | Open Engagement Summary | Open Engagement Analysis

Instructions | Stats Basics | Data ENTRY | Viral Suppression Summary | Viral Suppression Analysis | Engagement Summary | Engagement Analysis

Once the data is in select the viral suppression summary

DISPARITY CALCULATOR OUTPUT

Viral Suppression (HAB) Overall Performance Average: 81.7%	Transgender People	MSM of Color	African American and Latina Women	Youth (aged 13-24)
Population Sample	16	533	334	33
Pop Performance	81.25%	80.49%	83.53%	69.70%
Absolute Disparity	NO DISPARITY	NO DISPARITY	NO DISPARITY	**YES DISPARITY**
Relative Risk	UNDEFINED RESULT	UNDEFINED RESULT	UNDEFINED RESULT	UNDEFINED RESULT
Comparative Disparity	UNDEFINED RESULT	UNDEFINED RESULT	UNDEFINED RESULT	UNDEFINED RESULT
Odds Ratio	NO DISPARITY	NO DISPARITY	NO DISPARITY	NO DISPARITY
Absolute Impact	**0**	**12**	**9**	**4**

For this agency there is a disparity among youth.

What does absolute impact mean?

If the viral load of youth increased to be comparable to the group average four clients would be impacted

DISPARITY CALCULATOR OUTPUT

Viral Suppression (HAB) Overall Performance Average: 81.7%	Transgender People	MSM of Color	African American and Latina Women	Youth (aged 13-24)
Population Sample	16	533	334	33
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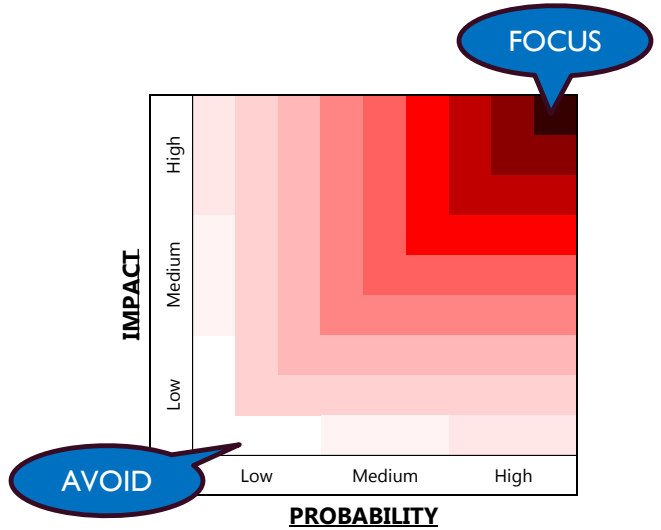
Absolute Disparity	NO DISPARITY	NO DISPARITY	NO DISPARITY	YES DISPARITY
Relative Risk	UNDEFINED RESULT	UNDEFINED RESULT	UNDEFINED RESULT	UNDEFINED RESULT
Comparative Disparity	UNDEFINED RESULT	UNDEFINED RESULT	UNDEFINED RESULT	UNDEFINED RESULT
Odds Ratio	NO DISPARITY	NO DISPARITY	NO DISPARITY	NO DISPARITY
Absolute Impact	0	12	9	4



What do these colors in the bottom row mean?

- Often times the most probable and the highest impact groups are not going to be the same
- This is color coding providing information on which groups should be focused on to impact the greatest number of lives

HOW CALCULATOR CAN WORK FOR ANY MEASURE

- This tool could be used for any performance measure where the goal is to increase in performance
- Example: We utilize this to see if disparities exist within our Medical Case Management Care Plan Measure
  - The goal of this measure is that clients will receive two care plan updates during the year

HOW WE UTILIZED THE DISPARITY CALCULATOR

- Summarized the findings in a handout for each agency
- At a quarterly meeting we organized agencies into groups depending on what disparities existed among their client population, groups participated in a facilitated discussion and came up with some ideas and opportunities for cross-agency collaboration

EXAMPLE OF DISPARITY CALCULATOR HANDOUT: PART A PROGRAM

Comparison Group: All Clients with a Lab (2,727/3,316 = 82% Virally Suppressed)

1 **Transgender People**
37/50 = 74% Virally Suppressed
There may be a disparity for this subpopulation.

2 **MSM of Color**
1,479/1,825 = 81% Virally Suppressed
There is no disparity for this subpopulation.

3 **African American & Latina Women**
570/692 = 82% Virally Suppressed
There is no disparity for this subpopulation.

4 **Youth (13-24)**
175/266 = 66% Virally Suppressed
A disparity exists for this subpopulation.

HOW AGENCIES USE THE CALCULATOR RESULTS

- Prioritizing their list and interventions
- Determining who to collaborate with
- Learning from other providers who don't have a disparity

WHY UTILIZE THE DISPARITY CALCULATOR TOOL?

- It is free
- Provides a new tool to assess client populations and helps discussions around targeting interventions to improve health equity
- Promotes interdisciplinary discussion between clinicians, case managers and management

USING THE COHORT LIST

Cohort List

Who is in the Cohort

- Name
- Gender
- Age
- HIV Risk Factor
- Race/Ethnicity
- Income

- Last Primary Insurance
- Viral Load Lab Date & Value

Cohort List_Viral Load %

What percentage of the Cohort is Suppressed

- This allows clinics/agencies to see their progress whenever they want

DRILL INTO COHORT LIST TO IDENTIFY BARRIERS

- Group clients together by like factors and barriers
- Focus on those most in need (e.g., highest viral load, longest out of care)

EXAMPLE OF COHORT LIST

Name	Age	Viral Load	Insurance
Smith, John	62	204568	Medicare
Johnson, Tasha	56	68045	Medicaid
Roberts, Darrell	54	106870	Medicaid
Bob, Jack	50	36478	No Insurance

Worker	Information
Genna	housing issues stigma Mental Health substance abuse
Genna	drug use housing relationship issues
Elaine	non-responsive moves a lot denies meds "God heals"
Lisa	couch surfing anger issues unmedicated mental health

Provided by CAREWARE

Provided by Quality Committee

INTERPROFESSIONAL APPROACH

- Quarterly Quality Meetings- health department quality staff, sub-recipient's Quality Leads, newly trained direct service staff
- Quality Committees- the committees are made up of clinical/non-clinical staff and consumers
- Everyone most be part of this project- consumer input makes a noticeable difference in the ideas generated and the outcomes achieved

AGENCY SUPPORT FOR CONSUMER INVOLVEMENT

- Trainings to assist consumers in understanding quality improvement and how to be a successful member of the quality committee at the agency where they receive services
- Incentives were provided to agencies to utilize with consumers on their quality committees to assist in meeting attendance

DESIGN POPULATION-SPECIFIC OR PATIENT-SPECIFIC INTERVENTIONS (TESTS OF CHANGE)

- Population-Specific
  - Address clients that have the same barrier/set of barriers
  - Systems level change
- Patient-Specific
  - Individual clients may have very specific barriers- you may not need to make a systems change
  - You may use the same solution occasionally with future clients

PDSA EXAMPLE: POPULATION-SPECIFIC CYCLE 1

- Plan: Many on cohort list are lost-to-follow-up. Tested if social media could be used to regain contact and continue communication (to keep clients engaged in care).
- Do: Reached out to 2 clients on cohort list, who have not been reached by phone or mail, on via social media.
- Study: 1 client responded and case management was able to schedule and meet with client and schedule medical appointment.
- Act: Test again with 2 more clients on cohort list that have been unreachable.

PDSA EXAMPLE: POPULATION SPECIFIC CYCLES 2-4

2nd Cycle

- Do: Contact 2 cohort list clients via social media.
- Study: 2 clients responded positively. 1 indicated he was in care in a new state and appreciated the contact. Another scheduled medical & case management appointments.
- Act: Test intake forms that include asking permission to use social media for communication.

3rd Cycle

- Do: Asked 2 new clients for permission to use social media for communication.
- Study: Both agreed.
- Act: Test again with current clients.

4th Cycle

- Do: Asked 2 current clients for permission to use social media.
- Study: Both agreed, committee talked with leadership and advocated that communication policy should be updated and forms changed.
- Act: Adopt. Updated policy & forms. Retrained staff.

PDSA EXAMPLE: PATIENT SPECIFIC CYCLE 1

- Plan: Male client with high VL selected to complete a medication assessment/medication specific care plan in order to address medication barriers and provide additional support. The first cycle was based on the client's barrier to physically swallowing medication by testing if crushing the medication worked.
- Do: Client crushed pills for 2 days, put it in apple sauce and attempted to take medication.
- Study: The client was unable to take the medication and wanted to continue to test alternative methods. Researched alternatives.
- Act: Adapt- use a "flow cup".

PDSA EXAMPLE: PATIENT SPECIFIC CYCLE 2

- Do: Obtain tool and client will test utilizing the cup for two days
- Study: Barriers occurred with obtaining the item. Once received client began utilizing and continues to use/.
- Act: Barrier addressed; no further tests (unless something changes).

OUTCOMES AS OF AUGUST 2017

COHORT OUTCOMES

GOAL: To increase viral suppression among the Quality Cohort from **0% to 50%** by December 31, 2017

January 2017

We started with 584 clients who were not virally suppressed

March 2017

In March, 23% of the quality cohort was virally suppressed

August 2017

In August, **50%** of the quality cohort was virally suppressed!

VIRAL SUPPRESSION OF ALL RW PART A CLIENTS

GOAL: To increase viral load suppression among Ryan White Part A clients from **82% to 90%** by December 31, 2017

- As of August 2017 we have increased viral suppression from **82%** to **84%** for all Part A clients

DISPARITY CALCULATOR RESULTS AS OF AUGUST 2017

Viral Suppression (HAB) Overall Performance Average: 84.3%				
	Transgender People	MSM of Color	African American and Latina Women	Youth (aged 13-24)
Population Sample	56	1873	676	257
Pop Performance	75.00%	84.30%	83.43%	72.76%
Absolute Disparity	MAYBE DISPARITY	NO DISPARITY	NO DISPARITY	**YES DISPARITY**
Relative Risk	UNDEFINED RESULT	UNDEFINED RESULT	UNDEFINED RESULT	UNDEFINED RESULT
Comparative Disparity	UNDEFINED RESULT	UNDEFINED RESULT	UNDEFINED RESULT	UNDEFINED RESULT
Odds Ratio	NO DISPARITY	NO DISPARITY	NO DISPARITY	**YES DISPARITY**
Absolute Impact	**5**	**2**	**7**	**32**

DISPARITY CALCULATOR RESULTS AS OF AUGUST 2017

Comparison Group: All Clients with a Lab (2842/3373 = 84% Virally Suppressed) ↑2%

1 **Transgender People** ↑1%
42/56 = 75% Virally Suppressed
There may be a disparity for this subpopulation.

2 **MSM of Color** ↑3%
1579/1873 = 84% Virally Suppressed
There is no disparity for this subpopulation.

3 **African American & Latina Women** ↑1%
564/676= 83% Virally Suppressed
There is no disparity for this subpopulation.

4 **Youth (13-24)** ↑7%
187/257 = 73% Virally Suppressed
A disparity exists for this subpopulation.

WHY CONSIDER A COHORT APPROACH? **FOCUSES THE WORK ON DISPARITIES**

- Manageable
  - Focused the work of our subrecipients and staff
  - Used data that we had available (with new calculator tool)
  - Addressed known disparities
  - No new data system was needed, we amended our current system
- Meaningful
  - Viral load suppression is the ultimate goal of HIV treatment
  - Success is clear, suppression is reached (or not)

WHY CONSIDER A COHORT APPROACH? **IT'S MANAGEABLE**

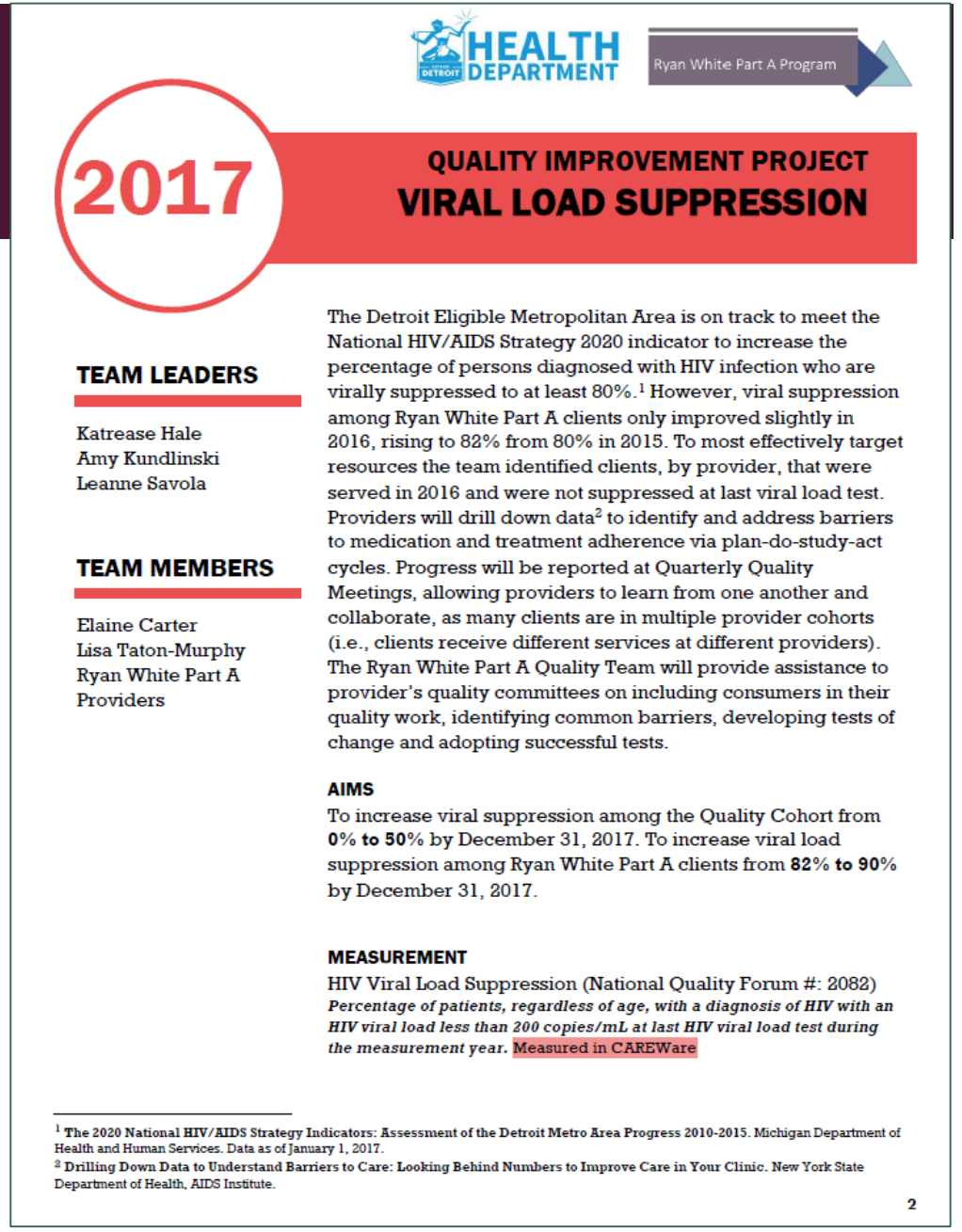
- Providers report that it has been much easier to develop quality initiatives with this very intentional approach
  - By saying, "these are your clients to focus on in 2017" we have removed all guesswork from the initial stage of drilling down the data
- Everyone is excited to see how the cohort is doing
  - This approach has fostered new excitement and conversations over an outcome we have been striving to achieve for years

WHEN YOU PICK A **MEANINGFUL** PROJECT

PEOPLE WILL WANT TO KNOW HOW IT'S GOING

WE TOLD STAKEHOLDERS WHAT WE WERE WORKING ON

- Health Department Leadership
- Quality Steering Committee
- Part A Planning Council
- Statewide Ryan White Coordination Meetings
- University Partners



HEALTH DEPARTMENT

Ryan White Part A Program

2017

QUALITY IMPROVEMENT PROJECT

VIRAL LOAD SUPPRESSION

TEAM LEADERS

Katrease Hale
Amy Kundlinski
Leanne Savola

TEAM MEMBERS

Elaine Carter
Lisa Taton-Murphy
Ryan White Part A Providers

The Detroit Eligible Metropolitan Area is on track to meet the National HIV/AIDS Strategy 2020 indicator to increase the percentage of persons diagnosed with HIV infection who are virally suppressed to at least 80%.[1] However, viral suppression among Ryan White Part A clients only improved slightly in 2016, rising to 82% from 80% in 2015. To most effectively target resources the team identified clients, by provider, that were served in 2016 and were not suppressed at last viral load test. Providers will drill down data[2] to identify and address barriers to medication and treatment adherence via plan-do-study-act cycles. Progress will be reported at Quarterly Quality Meetings, allowing providers to learn from one another and collaborate, as many clients are in multiple provider cohorts (i.e., clients receive different services at different providers). The Ryan White Part A Quality Team will provide assistance to provider's quality committees on including consumers in their quality work, identifying common barriers, developing tests of change and adopting successful tests.

AIMS

To increase viral suppression among the Quality Cohort from **0% to 50%** by December 31, 2017. To increase viral load suppression among Ryan White Part A clients from **82% to 90%** by December 31, 2017.

MEASUREMENT

HIV Viral Load Suppression (National Quality Forum #: 2082)
Percentage of patients, regardless of age, with a diagnosis of HIV with an HIV viral load less than 200 copies/mL at last HIV viral load test during the measurement year. Measured in CAREWare

[1] **The 2020 National HIV/AIDS Strategy Indicators: Assessment of the Detroit Metro Area Progress 2010-2015.** Michigan Department of Health and Human Services. Data as of January 1, 2017.
[2] **Drilling Down Data to Understand Barriers to Care: Looking Behind Numbers to Improve Care in Your Clinic.** New York State Department of Health, AIDS Institute.

2

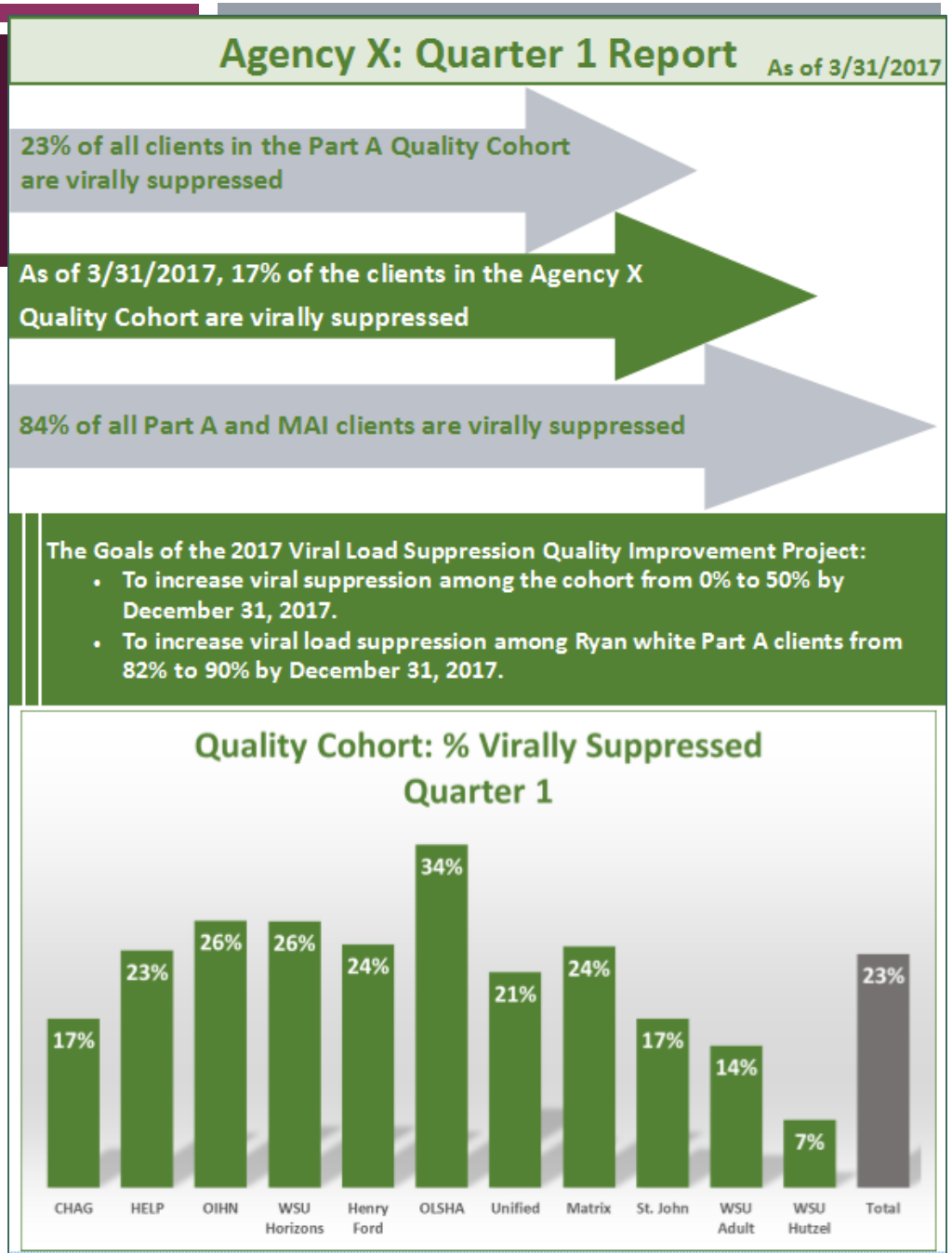
COMMUNICATING OUTCOMES

- Participating agencies/clinics get quarterly updates, that compare their progress to their colleagues
- The Planning Council receives a presentation quarterly

Overview of Provider and Group Performance

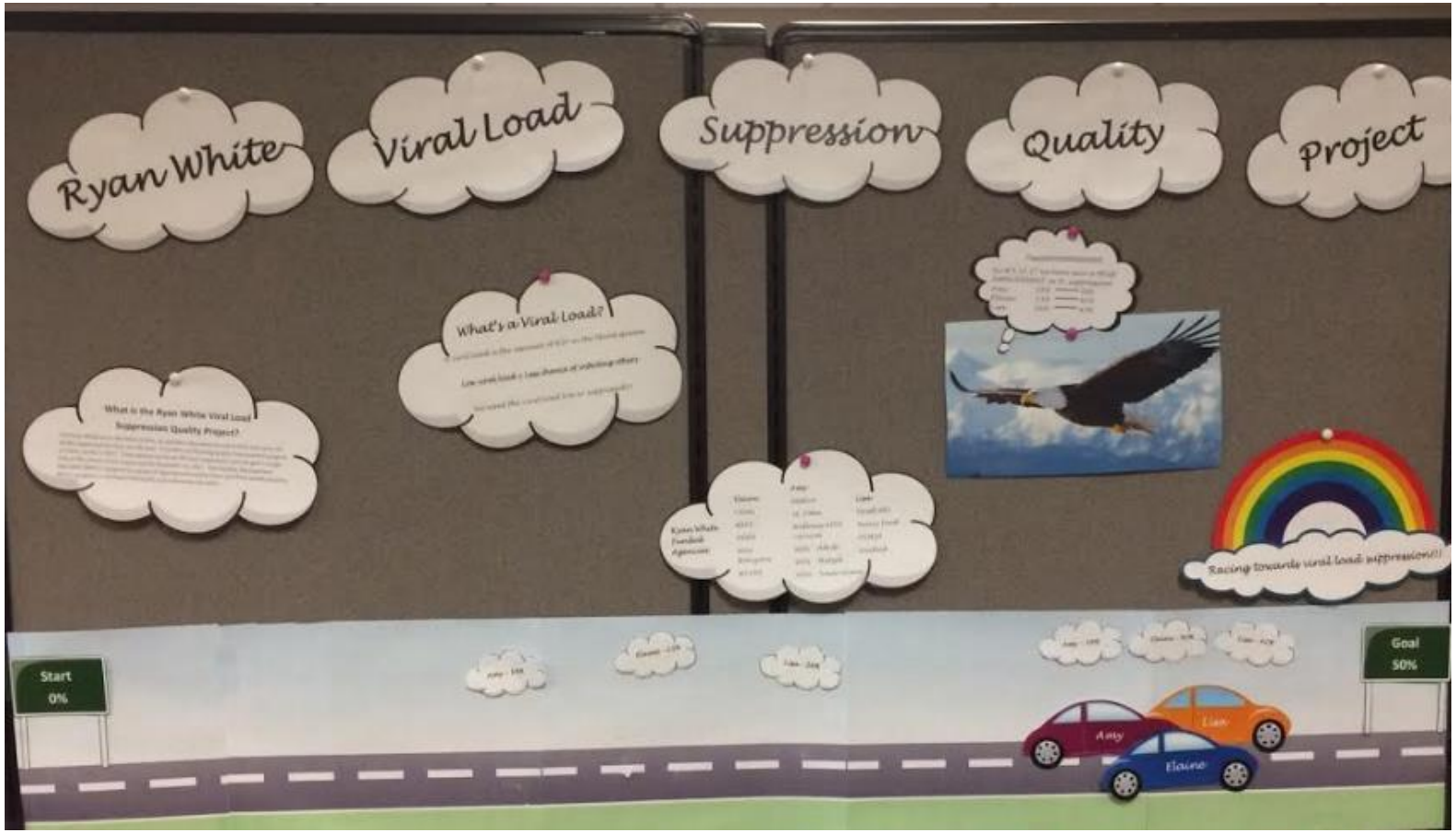
Goals

Cohort Viral Suppression for All Providers



COMMUNICATING OUTCOMES AT DETROIT HEALTH DEPARTMENT

- We discuss the cohort at monthly HIV/STD Team meeting
- Updates are shared in department wide newsletters
- A bulletin board has been created to foster healthy competition and share updates with all health department employees



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