



NATIONAL QUALITY CENTER



Quality Institute #1: An Introduction to Performance Measurement for Quality Improvement Session 2

Barbara Rosa

Wednesday, August 25, 11-12:30pm

Maryland B

RWA-416

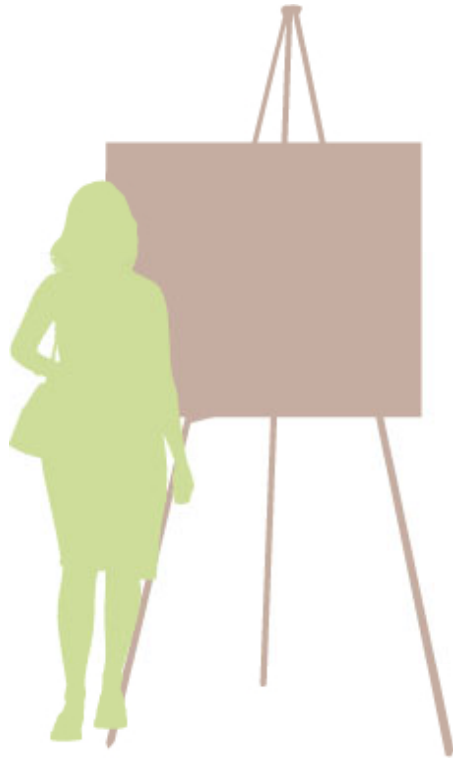
Learning Objectives

- Learn about frequently used quality measures
- What an “indicator” is
- How to select indicators that make sense for your program
- Steps in defining these indicators
- Sampling records for performance review
- Designing a data collection plan
- Collecting performance data
- Validating results
- Analyzing data

Agenda

11:00-11:05	Introduction & Agenda Review
11:05-11:15	Selecting & Defining Indicators
11:15-11:20	Group Feedback
11:20-11:30	Sampling Methodology
11:30-11:35	Sampling Quiz
11:35-11:45	Data Collection Principles
11:35-11:50	Drafting your data collection plan
11:50-12:00	Group feedback
12:00-12:10	Feedback on Practical Strategies
12:10-12:15	Once you have your data...
12:15-12:25	Analyzing data—practice
12:25-12:30	Final Q & A

Key Question



Why is measurement so important to quality, and how does measurement support quality improvement?

Pop Quiz

How many people were estimated to be living with HIV in the United States in the year 2007

18,000

43,000

929,000

1,300,000

Answer: About 1,300,000

This is a measure

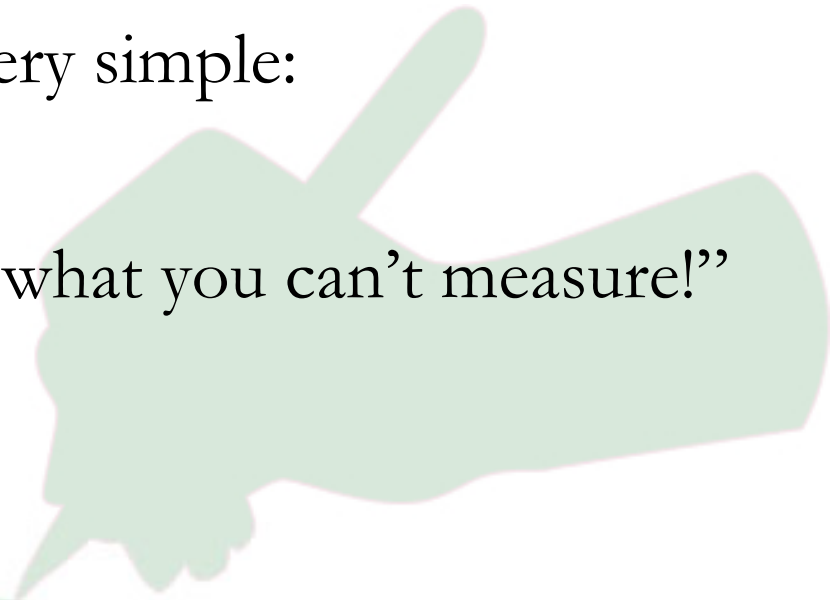
What can we do with this measure?

- Estimate resources
- Make predictions
- Epidemic getting better?

Why Measure?

It's very simple:


“You can't improve what you can't measure!”



Measurement and Quality Improvement are Interlinked



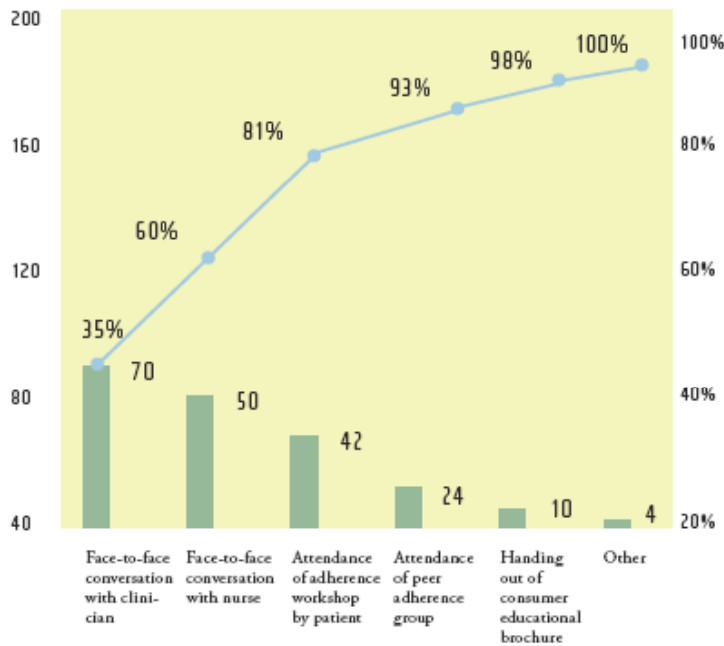
Key Question



What should we be measuring to assess and improve the quality of our HIV care and services?

What is a Quality Indicator?

A quality indicator is a tool to assess specific aspects of care and services that are linked to better health outcomes while being consistent with current professional knowledge and meeting client needs.



Indicators Measure Both...

- Outcomes
 - The end result
 - The effect on the individual or the population
- Processes
 - The actions taken to produce the outcome
 - The procedures for achieving the best outcomes

Examples of Outcomes Include:

- Patient Health Status
 - Intermediate outcomes like immune & virological status
 - Disability
 - The patient's own sense of his/her quality of life
 - Hospital and ER visits
- Patient Satisfaction
- Public Health Outcomes
 - Retention in Care
 - Access to Care

What Makes a Good Indicator?

- Relevance
 - Does the indicator affect a lot of people or programs?
 - Does the indicator have a great impact on the programs or patients/clients in your EMA, State, network or clinic?
- Measurability
 - Can the indicator realistically and efficiently be measured given finite resources?

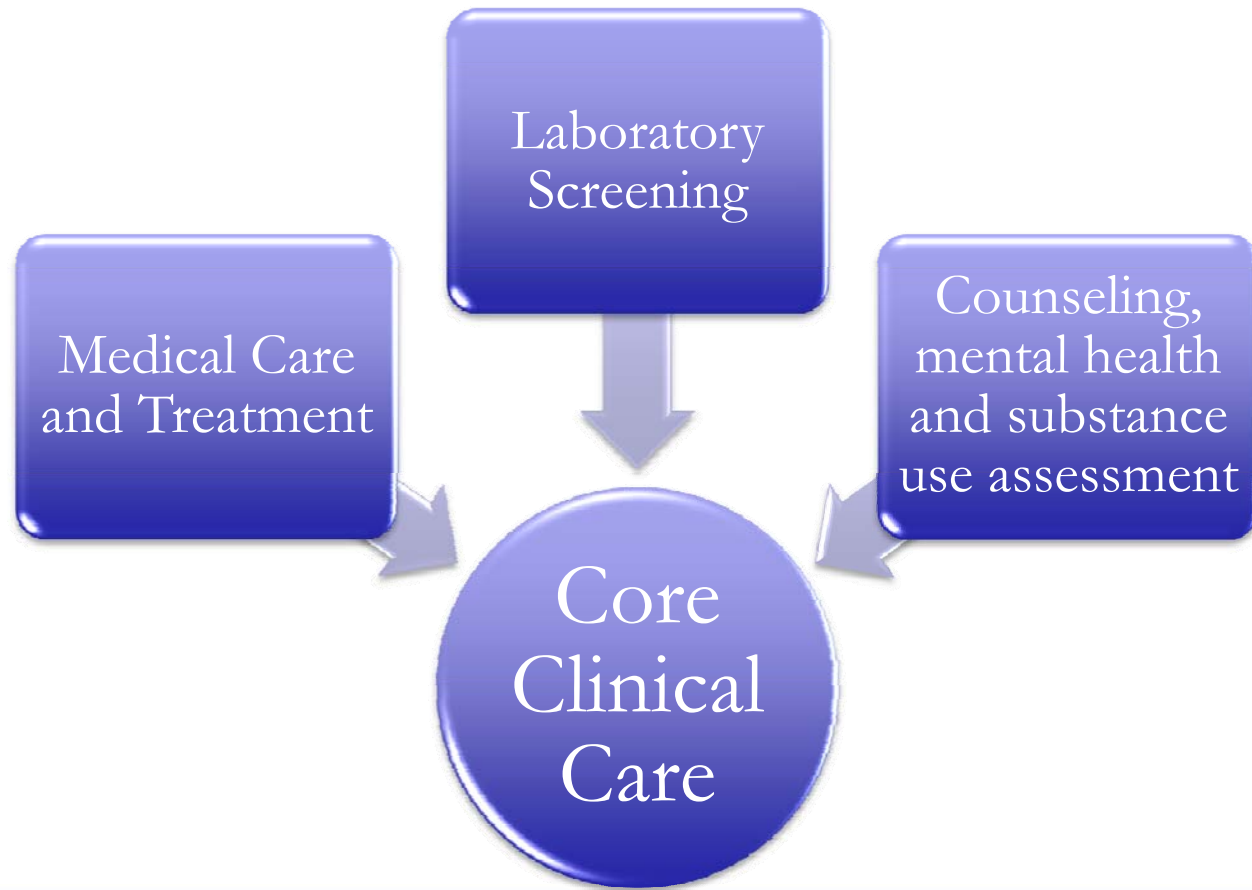
What Makes a Good Indicator?

- Accuracy
 - Is the indicator based on accepted guidelines or developed through formal group-decision making methods?
- Improvability
 - Can the performance rate associated with the indicator realistically be improved given the limitations of your services and population?

Core Clinical Performance Measures for Adults & Adolescents

- The HIV/AIDS Bureau of the Health Resources and Services Administration has, with the help of the care and service provider community, developed a set of *Core Clinical Performance Measures for Adults & Adolescents*
- The measures will help programs evaluate their performance on:
 - Medical care and treatment
 - Laboratory screening
 - Counseling, mental health and substance use assessment

The Core Clinical Performance measures address 3 aspects of care



Medical care and treatment includes:

- ARV Therapy for Pregnant Women
- CD4-T Cell Count
- HAART
- Medical Visits
- PCP Prophylaxis
- Hepatitis B Vaccination
- Oral Exam
- Influenza Vaccination
- MAC Prophylaxis
- Pneumococcal Vaccination

Laboratory screening measures look at appropriate screening for:

- Cervical cancer
- Hepatitis C
- Lipid (cholesterol) levels
- Syphilis
- Tuberculosis
- Chlamydia
- Gonorrhea
- Hepatitis B
- Toxoplasma

The third aspect of care involves counseling, mental health and substance use assessment

- Adherence assessment and counseling
- HIV risk counseling
- Hepatitis/HIV alcohol counseling
- Mental health screening
- Substance abuse screening
- Tobacco cessation counseling

HAB does not *require* programs to use these measures

But it strongly urges you to use the measures to:

- Track and trend performance
- Identify areas for improvement
- Strengthen quality management plans

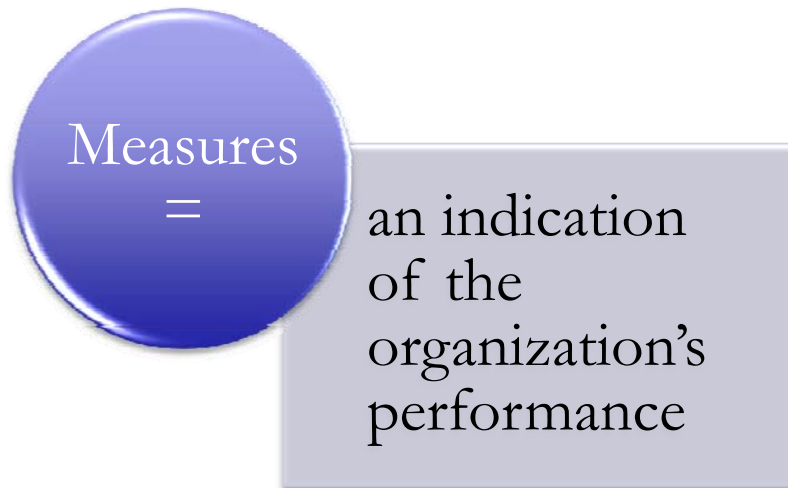
Key Point

All programs funded by the Ryan White HIV/AIDS Program can use these measures!

These measures will be useful at many levels of HIV care

- To align the work on the different Ryan White Program Parts
- At the system level
- At the provider level
- Within a program's quality management plan

Measures are not the same as standards of care



Common HIV-Related Indicators

Aspect of HIV Care	Quality of Care Indicator
HIV monitoring	CD4 and/or viral load tests performed every 4 months
Antiretroviral therapy	Adherence assessment every 4 months
TB screening	Annual PPD testing
Prophylaxis of opportunistic infections	PCP prophylaxis
Gynecologic care	Annual pelvic exam
Substance use	Annual substance use assessment
Coordination of care	Annual dental exam

The measures provide a menu of choices

Care

- ARV?
- Visits?
- CD4?
- PCP?
- Oral?
- Vaccines?

Screening

- Pap?
- Hep C?
- Lipids?
- TB?
- Syphilis?
- Hep B?

Counseling

- Adherence?
- Risk?
- Alcohol?
- Tobacco
- Substance Use?

Indicators Should Be Clearly Defined

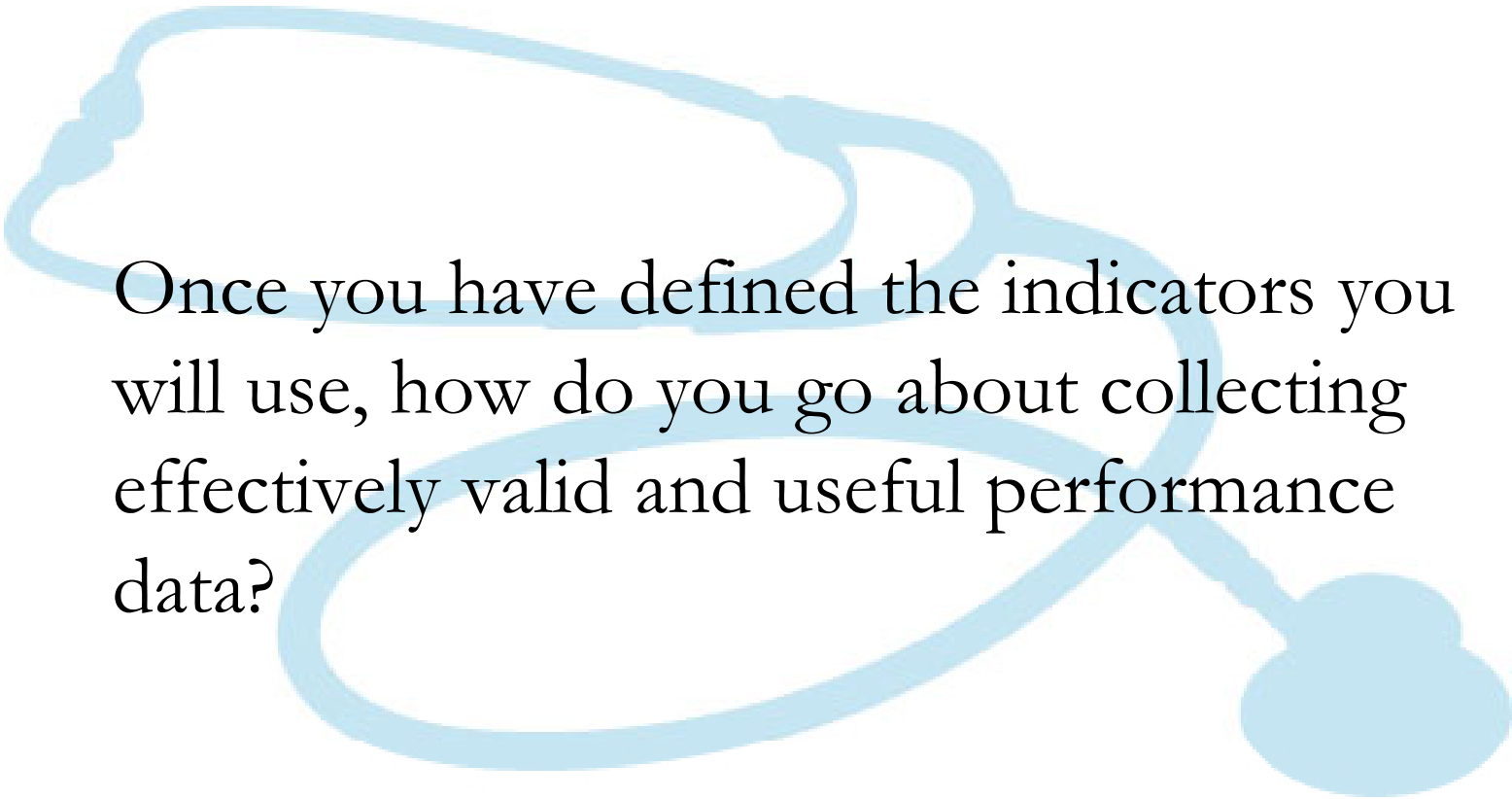
This definition includes:

- Who is eligible to be evaluated?
- What part of this population should have received the care being measured? (Who should be counted in the denominator?)
- What part of those who should have received the care **did** receive the recommended care? (Who should be counted in the numerator?)

Tips For Defining Indicators

- Base the indicator on guidelines and standards of care when possible
- Include staff and consumers when developing an indicator to create ownership
- Be clear in terms of patient / program characteristics (gender, age, patient condition, provider type, etc.)
- Set specific time-frames in indicator definitions

Key Question



Once you have defined the indicators you will use, how do you go about collecting effectively valid and useful performance data?

Develop Criteria to Define Your Measurement Population

- Location: all sites, or only some?
- Gender: men, women, or both?
- Age: any limits?
- Client conditions: all HIV-infected clients, or only those with a specific diagnosis?
- Treatment status?

Example: Eligibility Definition by the National HIVQUAL Project



In 2007 the eligibility definition was changed to: HIV+ patients who have had at least 2 HIV primary care visits in the last 12 months; at least 1 visit in the period January through June, and at least 1 visit in the period July through December.

“Just Enough” Data: Not 100% and Not Maximal Power

- The goal is to improve care, not prove a new theorem
- In most cases, a straightforward sample will do just fine

The HIVQUAL Sample Size Table

The HIVQUAL Sample Size Table indicates:

- The minimum number of records to be reviewed
- The number of records to be pulled to allow for over-sampling

Total Sample Table		
<i>Total Eligible Population</i>	<i>Minimum Total Records¹</i>	<i>Charts to Pull*</i>
Up to 20	All	All
21-30	24	31
31-40	30	39
41-50	35	46
51-60	39	51
61-70	43	56
71-80	46	60
81-90	49	64
91-100	52	68
101-119	57	74
120-139	61	79
140-159	64	83
160-179	67	87
180-199	70	91
250-299	79	103
300-349	82	107
350-399	85	111
400-449	87	113
450-499	88	114
500-749	94	122
750-999	97	126
1000-4999	105	137
5000 or more	107	139

Test Question

An HIV clinic assesses its performance data annually. During an initial meeting, the team defines their selection criteria as all HIV+ patients who have had at least 1 visit within the last 6 months of the study period and who have had more than 1 visit during the entire study period. 220 HIV+ patients meet these criteria.

Based on the supplied table, how large should the total review sample be?

- A) 61
- B) 79
- C) 75
- D) 98

Total Eligible Population	Minimum Total Records ¹	Charts to Pull*
Up to 20	All	All
21-30	24	31
31-40	30	39
41-50	35	46
51-60	39	51
61-70	43	56
71-80	46	60
81-90	49	64
91-100	52	68
101-119	57	74
120-139	61	79
140-159	64	83
160-179	67	87
180-199	70	91
200-249	75	98
250-299	79	103
300-349	82	107
350-399	85	111
400-449	87	113
450-499	88	114
500-749	94	122
750-999	97	126
1000-4999	105	137
5000 or more	107	139

Construct Your Sample Size

1. Identify eligible patients

- Review all records for eligibility. Eligibility for review is defined as all HIV+ patients who meet the following visit criteria:
 - At least two medical visits during the study period; one in each half of the year (i.e., study period = 1/1/2009 through 12/31/2009)
 - Patients who died prior to the end of the review period are still eligible if the above conditions are met

Construct Your Sample Size

2. Identify the number of eligible records

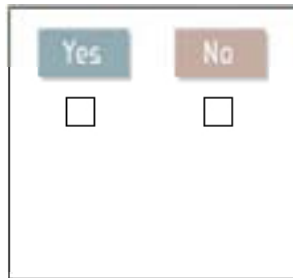
- Count the number of eligible records
- Sequentially order the list, either alphabetically, by medical record, or client number

Construct Your Sample Size

3. Select charts randomly for review

- Apply the random number sets to the lists of eligible patients using the sequence you created when numbering your lists

Develop Simple Data Collection Forms




For example:

- List all indicator questions on one page with “yes” or “no” boxes to be checked
- Copy one page for each record you are reviewing
- Computer systems can be useful, but remember, they are a tool, not a goal

Example of Data Collection Forms

Visit the HIVQUAL -
US for adult care,
adolescent care,
pediatric care and case
management manual
data collection forms

 **Toolbox: Examples of Indicator Definitions**
ARV Management (Eligibility: All Patients on ARV Therapy)

For each trimester (every 4 months), how do you assess the patient's stability?

Stable: Was a viral load performed within each trimester? Yes No

Unstable

If ARV medication was changed, was a viral load performed within 8 weeks? Yes No

If ARV medication was stopped, were decision and clinical follow up documented within three months? Yes No

If ARV medication unchanged, was justification documented? Yes No

If medication was started or changed in this trimester, did the patient get treatment education? Yes No

Was adherence discussed with the patient each trimester (every 4 months)?

Yes: Adherence discussion documented

Was an adherence problem identified? Yes (Was the adherence problem addressed?) Yes No

No: No documentation of adherence discussion

Was the patient seen by an HIV Specialist at minimum every 6 months?

Yes: Patient was seen at least every 6 months by an HIV Specialist. No: patient was not seen by an HIV Specialist.

Was the patient's hepatitis C status known?

Yes: HCV screening positive

Was patient's hepatitis A status known? Yes, seropositive

Yes, seronegative (Was patient offered hepatitis A vaccination?) Yes No

No

Was alcohol counseling documented within the last 12 months? Yes No

Was hepatitis C education documented within the last 12 months? Yes No

Yes: HCV screening negative

No: No screening performed

Was a Lipid Profile Done?

Yes: Lipid profile was done within the last 12 months. No: Lipid profile was not done within the last 12 months.

Was a mental health screening performed within the last 12 months? Yes No

Was a need for mental health referral identified? Yes (Was referral to a mental health provider made?) Yes No

No

Was an ophthalmology exam documented within the last 12 months?

Yes: An exam was done within the last 12 months. No: An exam was not done within the last 12 months.

Did the patient receive MAC prophylaxis?

Yes: The patient received MAC prophylaxis. (CBC done within 6 months?) Yes No

No: The patient did not receive MAC prophylaxis.

Establish Accountability for Data Collection



Train Your Abstractors



- Run a brief training session in person
- Talk about how data will be used
- Have lots of time for Q&A

Run a Pilot

- Select 2-3 records in the sample
- Ask abstractors to collect the requested information
- Check for accuracy
- Routinely meet with abstractors to discuss
- Revise collection tools and plans accordingly

Key Points

Successful data collection involves:

- A representative sample of records
- A comprehensive plan, including
 - Clear questions to be answered
 - Simple forms to be used
 - Well-trained and engaged staff
- Action!
- Validated data

Develop Your Own Work Plan for Data Collection

- Do you have indicators identified and defined?
- Have you determined your sample size?
- Do you have a random number list of records?
 - www.randomizer.org
- Where will you get your data from?
- Who will be responsible for overseeing the process?
- Who will be assigned to collect the different elements of data?

Data Collection Plan

- Do you have a data collection tool?
- Do you have computer capability to collect data?
- When will you train the data collectors?
- When will you start data collection?
- Who's going to validate the data?
- Resource: Free: Gantt-chart_L.xls at <http://www.vertex42.com/ExcelTemplates/excel-gantt-chart.html>

Project Name

Company Name

Project Lead: John Doe

Today's Date: 3/5/2007 (vertical red line)

Viewing Weeks: 1/1/07 - 11/26/07

WBS	Tasks	Start	End	Duration (Days)	% Complete	Working Days	Days Complete	Days Remaining	
1	Task Category 1	1/03/07	3/20/07	76	85%	55	65	11	
1.1	Sub Task	1/03/07	1/21/07	18	100%	13	18	0	
1.2	Sub Task	1/22/07	2/21/07	30	95%	23	29	2	
1.3	Sub Task	1/22/07	2/10/07	19	95%	15	18	1	
1.4	Sub Task	2/11/07	3/20/07	37	50%	27	19	19	
2	Task Category 2	3/01/07	5/13/07	73	20%	52	15	58	
2.1	Sub Task	3/01/07	3/18/07	17	50%	12	9	9	
2.2	Sub Task	3/01/07	3/18/07	17	30%	12	5	12	
2.3	Sub Task	3/19/07	4/27/07	39	0%	30	0	39	
2.4	Sub Task	4/15/07	5/13/07	28	0%	20	0	28	
3	Task Category 3	4/27/07	8/08/07	103	0%	74	0	103	
3.1	Sub Task	4/27/07	5/14/07	17	0%	12	0	17	
3.2	Sub Task	5/15/07	6/01/07	17	0%	14	0	17	
3.3	Sub Task	6/02/07	7/09/07	37	0%	26	0	37	
3.4	Sub Task	7/10/07	8/08/07	29	0%	22	0	29	

How would you rate each of the following on a scale of 1 ("It makes me shudder even to think about it") to 5 ("It all worked really well")?

	1	2	3	4	5
The time it took	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The money it cost	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How my colleagues and I felt about it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The accuracy of the results	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The usefulness of the information the data gave us	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Key Practical Strategies for Data Collection:

- What's worked?

Reviewing Data—Answer these ?

- What screening indicator had the lowest score? Highest score?
- What screening indicator may not meet the improvability criteria?
- What screening indicator has the most relevance for your program?
- What trend is appearing in the VL & CD4 frequency data?
- What % of patients had a VL < 400 at least once during the year?

Reviewing Data—Answer these ?

- What % of patients never had a VL above 400 in the year?
- What 2 Mental Health domains could most relate to documentation omissions?
- Which of the Mental Health domains could be screened by someone other than a physician?

Performance Measurement Resources

Measuring Clinical Performance:

A Guide for HIV Health Care Providers

New York State Department of Health AIDS Institute
Health Resources and Services Administration HIV/AIDS Bureau



"Circles" - painting by Frank Stella, 1977, gouache on paper.

HIVQUAL Workbook

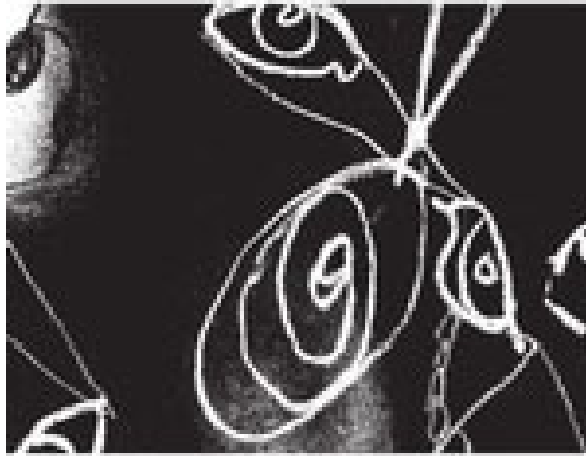
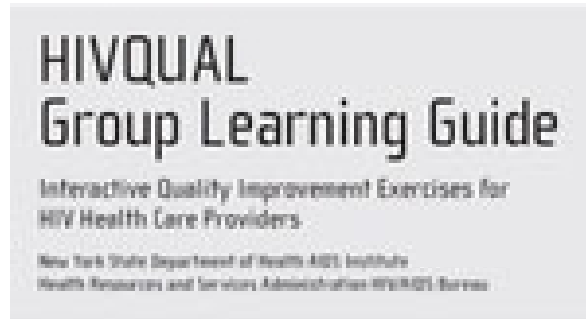
Guide for Quality Improvement in HIV Care

New York State Department of Health AIDS Institute
Health Resources and Services Administration HIV/AIDS Bureau



"Meadow" - painting by Frank Stella, 1977, gouache on paper.

Performance Measurement Resources



Quality Academy

C) Measurement and Data

TUTORIAL 7

Acting on Measurement -
Overview

Beginner

TUTORIAL 8

Choosing Quality
Measures for HIV Care
and Services

Intermediate

TUTORIAL 9

Collecting Performance
Data

Intermediate

TUTORIAL 21

Statistics 101 and Making
Graphs in Microsoft Excel

Intermediate

Aha Moment and Action Planning

- What have you learned from this workshop?
- What will you do differently in response to this workshop?
- Complete the Action Planning Form on your chair

NQC Activities at the AGM 2010 – Join Us!

Monday, August 23, 2010

- 11am: Improve Your Care and Services with Consumer Input (Quality Institute 1) - Delaware A
- 2:30pm: Creating a Culture for Quality Improvement (Quality Institute 1) - Delaware A

Tuesday, August 24, 2010

- 8:30am: Quality in Hard Times (Quality Institute 1) - Delaware A

Wednesday, August 25, 2010

- 8:30am: Quality Improvement 101/HAB Quality Expectations (Quality Institute 2) - Maryland B
- 11am: An Introduction to Performance Measurement (Quality Institute 2) - Maryland B
- 3:30pm: How to Share Performance Data to Spur Improvement (Quality Institute 2) - Maryland B

Thursday, August 26, 2010

- 8am: Strategies to Measure and Improve Patient Retention Rates - Washington 2
- 10am: Aligning Quality Initiatives: Lessons Learned from Cross-Part Collaborative - Washington 4
- 10am: Quality Management for Non-Clinical Care - Washington 1

Visit our NQC/HIVQUAL Exhibit Booth in the Exhibit Area

- Pick up hard copies of QI Publications and meet your staff and consultants



Barbara Rosa
NQC Consultant
National Quality Center (NQC)

212-417-4730

NationalQualityCenter.org

Info@NationalQualityCenter.org