Systems Linkages and Access to Care for Populations at High Risk for HIV Infection in New York State

Queens and Staten Island Collaborative

Queens Quality Improvement Workshop

May 7, 2013
Learning Objectives

• Understand team dynamics, and the value of team work in quality improvement
• Review key principles that guide quality improvement work
• Investigate and discuss challenges to linkage and retention within and across agencies
• Prioritize areas to focus upon to improve linkage and/or retention in care
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<td>Introduction to Quality Improvement</td>
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<td>Adjourn</td>
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Together, we
• identify innovative solutions for improving linkage to and retention in HIV care to support the delivery of routine, timely, and effective care for PLWHA in New York State; and

• bridge systemic gaps between HIV related services to achieve better outcomes for PLWHA through improving systems for monitoring, recording, and accessing information about HIV care in NYS.
CDC’s National ‘Cascade’ (July, 2012)

The Spectrum of Engagement in HIV Care (the ‘Cascade’) assembles NHAS and other measures into a single presentation

OVERALL: Of the 1.1 million Americans living with HIV, only 25 percent are virally suppressed.

- **Diagnosed**: 82%
- **Linked to Care**: 66%
- **Retained in Care**: 37%
- **Prescribed ART**: 33%
- **Virally Suppressed**: 25%
Cascade of HIV Care
New York State, 2010

Estimated HIV Infected Persons: 156,287
Persons Living w/ Diagnosed HIV Infection: 128,653 (82% of infected)
Cases w/any HIV Care during the year*: 84,701 (54% of infected, 66% of PLWDHI)
Cases w/continuous care during the year**: 73,634 (47% of infected, 57% of PLWDHI)
Virally suppressed (n.d. or <200/ml) at test closest to mid-year: 58,337 (37% of infected, 45% of PLWDHI, 69% of cases w/any care)

* Any VL or CD4 test during the year
** At least 2 tests, at least 3 months apart
NASA Exercise: Survival on the Moon

Source: July 1999 issue of the NightTimes
Overview

- Introduction to NASA Game Scenario
- Individual Ranking
- Group Discussion and Ranking
- Debriefing
NASA Game Scenario

You are a member of a space crew originally scheduled to rendezvous with a mother ship on the lighted surface of the moon. However, due to mechanical difficulties, your ship was forced to land at a spot some 200 miles from the rendezvous point. During reentry and landing, much of the equipment aboard was damaged and, since survival depends on reaching the mother ship, the most critical items available must be chosen for the 200-mile trip. Below are listed the 15 items left intact and undamaged after landing. Your task is to rank order them in terms of their importance for your crew in allowing them to reach the rendezvous point.
Recovered Items

- Box of matches
- Food concentrate
- 50 feet of nylon rope
- Parachute silk
- Portable heating unit
- Two .45 caliber pistols
- One case of dehydrated milk
- Two 100 lb. tanks of oxygen
- Stellar map
- Self-inflating life raft
- Magnetic compass
- 5 gallons of water
- Signal flares
- First aid kit, including injection needle
- Solar-powered FM receiver-transmitter
Individual Ranking

• What are the most important items?
  – 3 minutes
  – Using the Reporting Form, place the number 1 by the most important item, the number 2 by the second most important, and so on through number 15 for the least important
Group Ranking

- Group Discussion
  - Form Groups of 2 or more agencies
  - Assignment of one facilitator, one observer, a recorder and a reporter
  - 15 minutes

- Ranking
  - Discuss the ranking of the recovered items in the group and develop one ranking
  - Using the Reporting Form, place the number 1 by the most important item, the number 2 by the second most important, and so on through number 15 for the least important
Scoring

• For each item, mark the number of points that your score differs from the NASA ranking, then add up all the points. Disregard plus or minus differences. The lower the total, the better your score.

  — Example: Box of matches – Individual Ranking 5 and NASA Ranking 10; count 5 points
  — Score the individual and group rankings
## Answers to the Survival on the Moon Exercise

<table>
<thead>
<tr>
<th>Item</th>
<th>NASA Ranking</th>
<th>NASA's Reasoning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Box of matches</td>
<td>15</td>
<td>Virtually worthless -- there's no oxygen on the moon to sustain combustion</td>
</tr>
<tr>
<td>Food concentrate</td>
<td>4</td>
<td>Efficient means of supplying energy requirements</td>
</tr>
<tr>
<td>50 feet of nylon rope</td>
<td>6</td>
<td>Useful in scaling cliffs and tying injured together</td>
</tr>
<tr>
<td>Parachute silk</td>
<td>8</td>
<td>Protection from the sun's rays</td>
</tr>
<tr>
<td>Portable heating unit</td>
<td>13</td>
<td>Not needed unless on the dark side</td>
</tr>
<tr>
<td>Two .45 caliber pistols</td>
<td>11</td>
<td>Possible means of self-propulsion</td>
</tr>
<tr>
<td>One case of dehydrated milk</td>
<td>12</td>
<td>Bulkier duplication of food concentrate</td>
</tr>
<tr>
<td>Two 100 lb. tanks of oxygen</td>
<td>1</td>
<td>Most pressing survival need (weight is not a factor since gravity is one-sixth of the Earth's -- each tank would weigh only about 17 lbs. on the moon)</td>
</tr>
<tr>
<td>Stellar map</td>
<td>3</td>
<td>Primary means of navigation - star patterns appear essentially identical on the moon as on Earth</td>
</tr>
<tr>
<td>Self-inflating life raft</td>
<td>9</td>
<td>CO₂ bottle in military raft may be used for propulsion</td>
</tr>
</tbody>
</table>
## Answers to the Survival on the Moon Exercise

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnetic compass</td>
<td>14</td>
<td>The magnetic field on the moon is not polarized, so it's worthless for navigation</td>
</tr>
<tr>
<td>5 gallons of water</td>
<td>2</td>
<td>Needed for replacement of tremendous liquid loss on the light side</td>
</tr>
<tr>
<td>Signal flares</td>
<td>10</td>
<td>Use as distress signal when the mother ship is sighted</td>
</tr>
<tr>
<td>First aid kit, including injection needle</td>
<td>7</td>
<td>Needles connected to vials of vitamins, medicines, etc. will fit special aperture in NASA space suit</td>
</tr>
<tr>
<td>Solar-powered FM receiver-transmitter</td>
<td>5</td>
<td>For communication with mother ship (but FM requires line-of-sight transmission and can only be used over short ranges)</td>
</tr>
</tbody>
</table>
Scoring

• 0 - 25 excellent (*true survivor...*)
• 26 - 32 good
• 33 - 45 average
• 46 - 55 fair
• 56 - 70 poor (*suggests use of Earth-bound logic...*)
• 71 - 112 very poor
Debriefing

• Compare individual and group rankings
  – How many are better off? Why did more survive? What were the factors for higher group survival?
• Team dynamics - report from observer and group
  – How did the group work together? Why did the group work well (or not)? What were the group dynamics that positively contributed to a higher survival?
• Reflections
  – What are the lessons learned from this game? How can a group reach a common goal?
QI Teams and Team Facilitation
Teams Outperform Individuals When

– The task is complex
– Creativity is needed
– The path forward is unclear
– More efficient use of resources is required
– Fast learning is necessary
– High commitment is desirable
– The implementation of a plan requires the commitment of others
– The task or process is cross-functional

_Peter Scholtes et al., The Team Handbook._
What Do Teams Need to Succeed?

- Clearly defined goals
- Well defined parameters
- Easily communicate within the organization
- Necessary knowledge and skills
- Accomplish tasks - how?

Scholtes et al., *The Team Handbook*
Team Roles

- Leader
- Facilitator
- Member
- Timekeeper
- Recorder
Team Responsibilities

• **Leader:** first among equals; guides the team and represents its work
• **Facilitator:** coach, helps keep things working well
• **Member:** equal participant, provides information and helps make good decisions
• **Timekeeper and Recorder:** rotating roles to help with meetings and record-keeping
Key Roles

Facilitator:
• Process focused
• Objective & impartial
• No vested interest
• Remains neutral
• No input on content
• Not in decision making
• Monitors team interactions

Leader:
• Result focused
• Active team member
• A vested interest
• Voice opinions/ideas
• Provides input
• Part of decision making
• Represents the team
• Gets resources
Key Facilitator Skills

• **Planning Skills** - plan ahead and anticipate challenges

• **Diagnostic Skills** – ‘read’ verbal/non-verbal clues of the group, understand team dynamics and recognize barriers to team effectiveness

• **Intervention Skills** – understand when (or when not) to ask questions, offer feedback, provide problem solving methods, push for outcomes, ensure involvement or wrap up

• **Goal-getting Skills** – keep the outcome of the group in mind

• **Evaluative Skills** – formally assess group outcome
Preparation

- Establish group framework
- Develop detailed meeting agenda
- Suggest ground rules
- Plan, plan, plan

<table>
<thead>
<tr>
<th>Time</th>
<th>Issue</th>
<th>Lead</th>
<th>Format</th>
<th>Materials</th>
<th>Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start and end of activity</td>
<td>What to expect</td>
<td>Who will lead</td>
<td>Discuss Decide Table group</td>
<td>Flipchart Markers</td>
<td>What do you want to achieve</td>
</tr>
</tbody>
</table>
Tips of the Trade - Opening of meeting

• Welcome all participants
• Review meeting objectives and agenda; state any issues for decision
• Introduce participants and yourself
• Clarify role of members and your role
• Set the tone and pace
• Set the stage for agreement and consent
• Consider icebreaker - within 10min, get all participants to talk
Real World Tips: Making the Team

- Include at least one member of the HIV quality committee on your project team
- Choose an experienced facilitator
- Include a consumer
- Take participant interests into account when assigning tasks or projects
Teams Work Best When

- Limited to 5 or 6 members
- Members can meet without logistical headaches
- Meetings are on target and succinct
- Meetings have a clear agenda
- Notes are kept and reviewed
NY Links Project –
Quality Improvement Team Roles

• Senior Leader/Collaborative Lead
• Point of Contact – person who serves as the bridge between NY Links and the organization
• Data Manager
• Quality Improvement Leader
• Clinical Provider or Program Manager
• PLWHA actively participating in QI
Quality Improvement Methodology and Principles
A few questions...

◆ Are health services always provided in a timely fashion? Are those services easily available?
◆ Was the care provided necessary? Was necessary care provided?
◆ Was care provided in the most efficient manner? Were there no unnecessary delays in the provision of care?
◆ Was the expected outcome achieved? Was the outcome achieved without complications?
◆ Are patients, clients and customers satisfied with provided services? Are there no patterns of complaints and concerns?
“Quality of care is the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge.”

Quality Improvement

• Quality improvement is an organizational approach to improve quality of care and services using a specified set of principles and methodologies.
Why Quality Improvement?

• "no health care provider wants to provide poor care or services to patients"
• QI represents strategic and systematic approach to meet the needs of those we serve
• QI provides simple, proven and effective QI tools and methodologies
• US: Institute of Medicine (IOM) Crossing the Quality Chasm report: “Between the health care we have and the care we could have lies not just a gap, but a chasm.” Definition of six domains for improvement: safety, effectiveness, patient-centeredness, timeliness, efficiency and equity.*

## QI is not QA

<table>
<thead>
<tr>
<th>Motivation</th>
<th>Quality Assurance</th>
<th>Quality Improvement</th>
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</thead>
<tbody>
<tr>
<td>Measuring compliance</td>
<td>Measuring compliance with</td>
<td>Continuously improving processes to meet</td>
</tr>
<tr>
<td></td>
<td>standards</td>
<td>standards</td>
</tr>
<tr>
<td>Means</td>
<td>Inspection</td>
<td>Prevention</td>
</tr>
<tr>
<td>Attitude</td>
<td>Required, defensive</td>
<td>Chosen, proactive</td>
</tr>
<tr>
<td>Focus</td>
<td>Outliers: “bad apples”</td>
<td>Processes</td>
</tr>
<tr>
<td></td>
<td>Individuals</td>
<td>Systems</td>
</tr>
<tr>
<td>Scope</td>
<td>Medical provider</td>
<td>Patient care</td>
</tr>
<tr>
<td>Responsibility</td>
<td>Few</td>
<td>All</td>
</tr>
</tbody>
</table>
Goals for Quality Improvement

• measure and assess specific care processes
• improve clinical and non-clinical outcomes
• eliminate health disparities
• enhance access to and availability of care
• eliminate inefficiencies, errors, unnecessary steps and barriers
• increase patient and staff satisfaction
• enhance communication and accountability
Principles on the Quality Improvement Journey...
Success is achieved through meeting the needs of those we serve.
W. Edwards Deming

“Most problems are found in processes, not in people.”
Infrastructure enhances systematic implementation of improvement activities.
Set Priorities and Communicate clearly

CAUTION

THIS SIGN HAS
SHARP EDGES

DO NOT TOUCH THE EDGES OF THIS SIGN

ALSO, THE BRIDGE IS OUT AHEAD
Model for Improvement

• **Improvement is about learning**
  – trial and error (scientific method)
  – improvements require change, however not all changes are an improvement

• **Measure your progress**
  – only data can tell you whether improvements are made
  – integrate measurement into the daily routine

• **Improvements thru continuous cycles of changes**
  – Plan-Do-Study-Act approach
  – changes are initiated on a small scale to test them before implementation
In 1601, James Lancaster successfully conducted an experiment to illustrate the effectiveness of lemon juice to prevent scurvy.

When did the British Navy adopt this treatment?

1. 1602
2. 1689
3. 1757
4. 1796
Answer

- Number 4: 1796 (195 years later)
How long did the NIH take to recommend the treatment of ulcer as suggested by Dr. Marshall in his 1984 Lancet Article?

1. 2 years
2. 5 years
3. 10 years
4. 20 years
Answer

• Number 3
  10 years
In a recent article in the *Journal of Quality Improvement* 92 QI projects were compared. What was the timeframe from problem identification to completion of first pilot?

1. 23 days  
2. 60 days  
3. 397 days  
4. 504 days
Answer

- Number 4
- 504 days
What are we trying to accomplish?

How will we know that a change is an improvement?

What change can we make that will result in improvement?

Model for Improvement

Act
Plan
Check
Do
The PDSA cycle for learning and improvement

**Act**
- What changes are to be made?
- Next cycle?

**Plan**
- Objective
- Questions and predictions (why)
- Plan to carry out the cycle (who, what, where, when)

**Study**
- Complete the analysis of the data
- Compare data to predictions
- Summarize what was learned

**Do**
- Carry out the plan
- Document problems and unexpected observations
- Begin analysis of the data
Short Cycle Small Scale Test of Change

How can we accelerate change and improvements in HIV programs?
Lessons Learned

• “The shorter the timeframes between test cycles, the more tests can be conducted and therefore, more opportunities for learning will emerge.” - HIVQUAL Workbook

• “Let’s be as opportunistic as a virus!” - Anonymous
PDSA Cycle to incorporate the use of an adherence screening tool

Cycle 1A: Adapt Adherence screening tool and test with one of Joanne’s patients

Cycle 1B: Revise tool and test with Dr. Burton’s patients next Monday

Cycle 1C: Present refined tool to all 3 clinicians and document feedback

Cycle 1D: Revise and test tool with all patients for one week

Cycle 1E: Implement and monitor the standards

Use of flowsheet will improve care to known standards

Improved MH Screening

DATA
Cause and Effect Diagram
Cause-and-Effect Diagram

- Organizes and displays all causes and sub-causes that may influence a problem, outcome, or effect
- Helps push people to think beyond the obvious causes, (money, time) to find some causes that they can fix/improve
- Helps organize potential solutions and make clear who should be involved in solutions
- Encourages a balanced view
- Demonstrates complexity of the problem
Common Categories

• **People:** Anyone involved with the process
• **Methods:** How the process is performed and the specific requirements for doing it, such as systems, policies, procedures, rules and regulations
• **Measurements:** Data generated from the process that are used to evaluate its quality
• **Equipment:** computers, tools etc. required to accomplish the job
• **Materials:** Raw materials, parts, pens, paper, etc. used to produce the final product
• **Environment:** The conditions, such as location, time, temperature, and culture in which the process operates
Cause and Effect Diagram of HIV-infected Homeless Youth Not Receiving HIV Primary Care

**Individual factors**
- History of physical/emotional/sexual abuse
- Low educational attainment
- Family conflict/neglect/abandonment
- Foster care system
- Poor Resources
- Survival sex
- Drug/Alcohol abuse
- Poor condom use
- Mental health disorder

**Social factors**
- Incarceration
- Laws
- Policies
- Economics

**Individual factors**
- Sexual minority
- Unstable Housing
- Low Self-efficacy

**Social Factors**
- Poor access to resources
- Stigma
- Violence
- Discrimination

HIV-infected homeless youth not Receiving HIV primary care
Cause and Effect Diagram Exercise

- Two or more organizations will use a cause and effect diagram to identify challenges and opportunities to either linking patients to care or retaining patients in care.
Problem: Low Rate of patients linked to care or low rate of patients retained in care

Please select a facilitator/recorder & report back to full group

1. Use the template in your packet.
2. Write the problem (“effect”) in box on right-side.
3. Brainstorm potential causes.
4. Review and refine causes. (Ask “why does this happen?” 3-5 xs)
5. Check for logic, completeness and balance.
Prioritization Exercise

• Step 1 - Groups will brainstorm two to four improvement ideas or activities based on what they have learned from their cause and effect diagram. Use the Brainstorming Worksheet to jot down your improvement ideas

• Step 2 - Using the prioritization matrix included in your packet, groups will select one improvement idea/activity to focus upon
Prioritization Matrix

**Relevance** - Does the area for improvement relate to a condition that occurs frequently or has a great impact on the linkage of patients to care or retention of patients in care at your facility?

**Measurability** - Can the change realistically and efficiently be measured given the facility’s finite resources? Will the measure show the impact of changes?

**Accuracy** - Is the indicator you will use to measure the change based on accepted guidelines or developed through formal group-decision making methods?

**Improvability**. Can the performance rate associated with the identified area realistically be improved given the limitations of the facility and patient?

Example: if you identify health literacy as an area that affects retention in care, can you realistically improve the rate of health literacy screenings? Can you improve the percentage of patients whose health literacy needs are met?
Prioritization Exercise - Instructions

• Assign a rating of 1 (lowest degree) to 5 (highest degree) for 2-4 ideas or activities to improve linkage or retention for each prioritization category

• Total the scores within each category for a given improvement idea or activity

• The highest score indicates an area to prioritize for improvement
NY Links Project Planning
Improvement Goals

Examples

Linkage to HIV Primary Care:

By January 2014, we will increase the percentage clients who test positive (in any context) who are linked to HIV medical care within 30 days from their confirmatory test result by 20%.

Retention in HIV Primary Care:

We will increase the retention of new clients in HIV primary care from our baseline by at least 10% by December 31, 2013.
NY Links Project Planning
Next Steps

• As a Team, Complete your Test of Change (PDSA) Worksheet Sections by June 18 for the next Learning Session

STEP 1: AIM/Problem Statement (incl. baseline measurement; test of change; prediction)

STEP 2: Plan (tasks, where, person responsible, timeframe, quantitative measures and qualitative measures, how will you collect these data)

STEP 3: Schedule a session with Lenee Simon

STEP 4: Conduct your test of change idea on a small scale, and complete the last 3 worksheet sections (Do; Study; Act)
Q & A
Highlights and Aha! Moments

• What have been some of your personal highlights or Aha! Moments from today’s workshop?
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Thank you!

• To our Host -- Patricia Freedman, HHC Elmhurst Hospital Center
• Agency QI Teams
• Dan Belanger, AIDS Institute
• Yamileth Quejada, AIDS Institute