Measurement for Improvement

CCC – Care Coordination Collaborative

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Sacramento, CA
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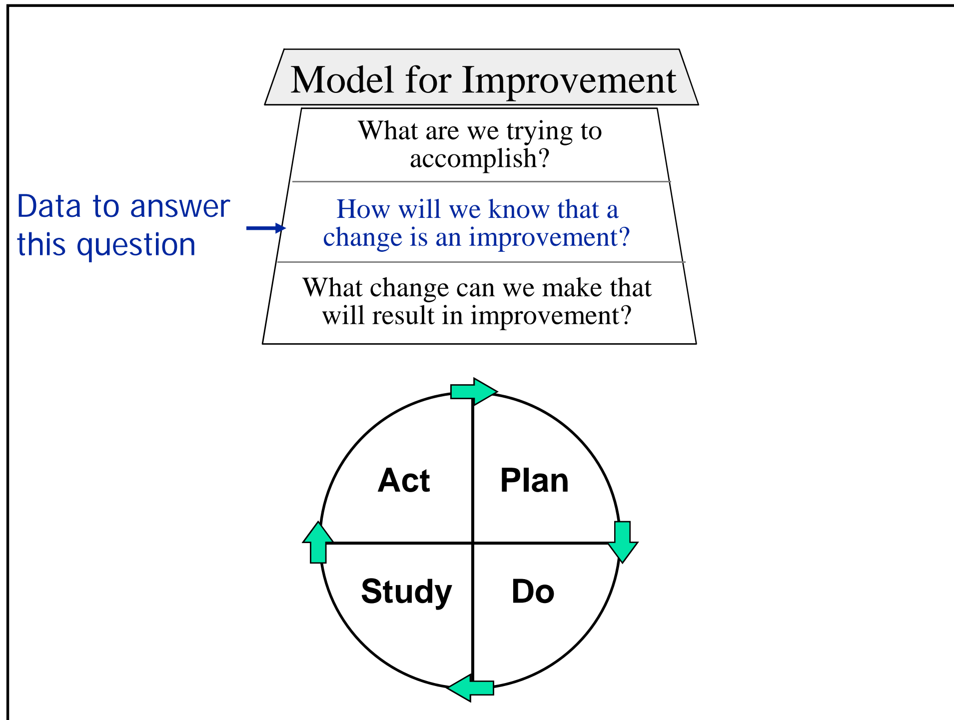
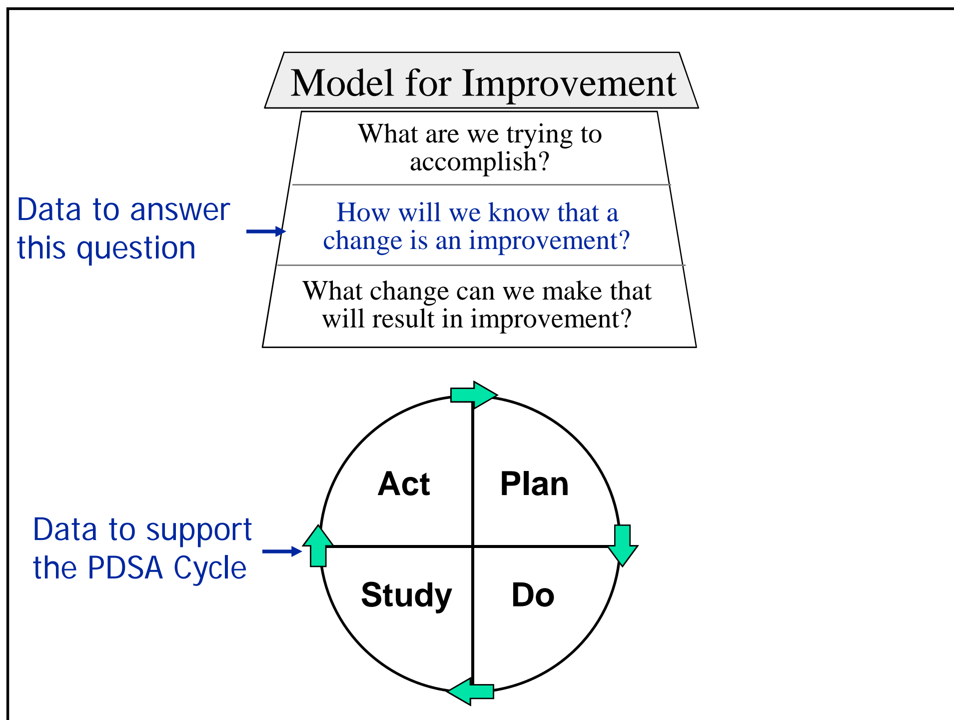
Fundamental Questions for Improvement

- 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 ?

Material is from The Improvement Guide, Second Edition, Jossey-Bass, 2009

API ASSOCIATES IN PROCESS IMPROVEMENT


Model for Improvement
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?
Data to answer this question
Act
Plan
Study
Do


Model for Improvement
What are we trying to accomplish?
How will we know that a change is an improvement?
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Data to answer this question
Act
Plan
Study
Do
Data to support the PDSA Cycle

Three Different Purposes for Measurement

Aspect	Improvement	Accountability	Research
Aim:	**Improvement of care**	Comparison, choice, reassurance	New knowledge
Methods:	**Test observable**	No test, evaluate current performance	Test blinded or controlled
Bias:	**Accept consistent bias**	Measure and adjust to reduce bias	Design to eliminate bias
Sample Size:	**"Just enough" data, small sequential samples**	Obtain 100% of available, relevant data	"Just in case" data
Flexibility of Hypothesis:	**Hypothesis flexible, changes as learning takes place**	No hypothesis	Fixed hypothesis
Testing Strategy:	**Sequential tests**	No tests	One large test
Determining if a Change is an Improvement:	**Run charts or Shewhart control charts**	No change focus	Hypothesis, statistical tests (t-test, F-test, chi square, p-values)
Confidentiality of the Data:	**Data used only by those involved with improvement**	Data available for public consumption and review	Research subjects' identities protected
Frequency of Use:	**Daily, weekly, monthly**	Quarterly, annually	At end of project

How will we know that a change is an improvement?

This collaborative is about changing your organization's approach to caring for Clients.

It is not about measurement. But ……

- Specific measures are required for learning about the impact of changes
- Key outcome measures are required to assess progress on your team's aim.

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API Associates in Process Improvement

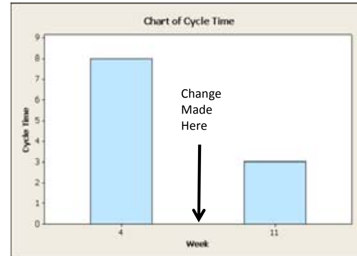
How will we know that a change is an improvement?

A change was designed to reduce the cycle time of an operation.

The team had 14 weeks to run a test. They planned to change the process between the 7th and 8th week from the beginning.

They measured the cycle time in the 4th week and the result was 8 min. They made the change as planned and in the 11th week they measured again the cycle time and the result was 3 min. The reduction from 8 min to 3 min was considered significant for the process under investigation.

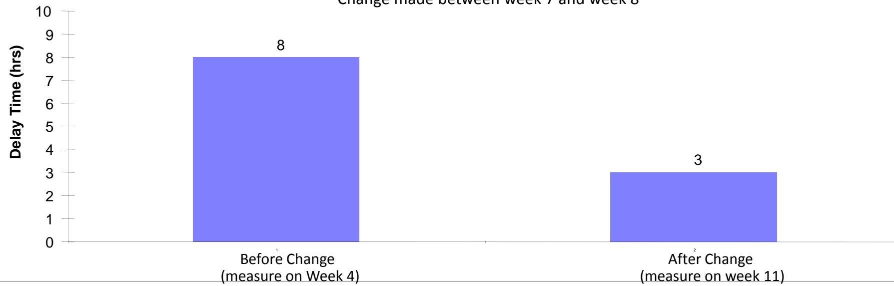
Does the test, summarized in this way, give a high degree of believe that the change, when implemented will result in an improvement?

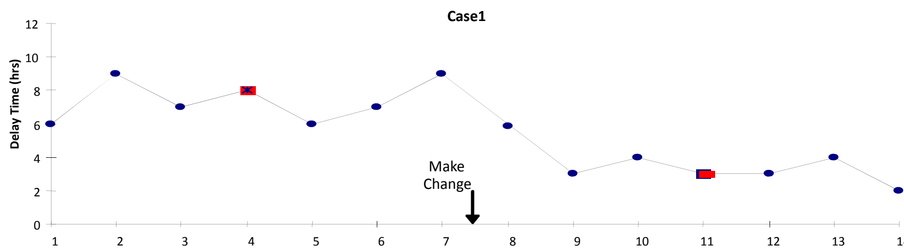


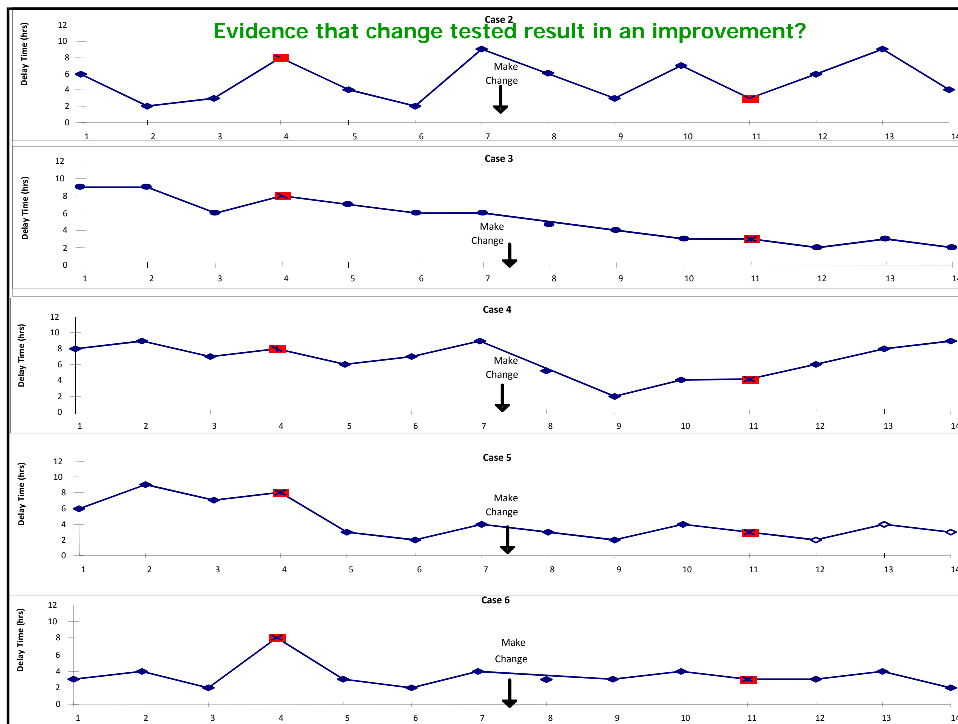
The Change was an improvement?

90% say Yes,
10% ask for more data

How Should We Look at Data?



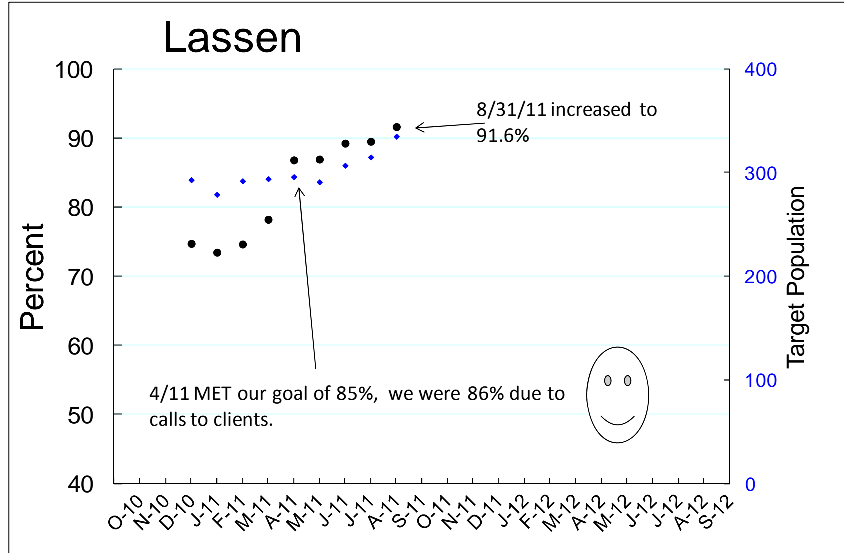


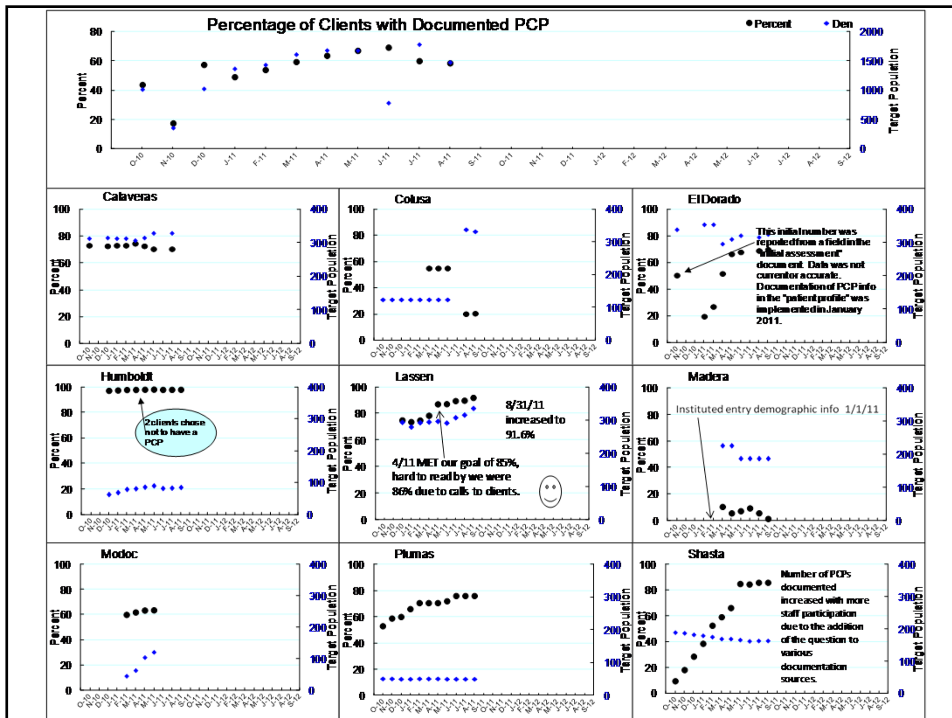


Effective Use of Data

- Seek usefulness not perfection
- Importance of a balanced set of measures
- Plot data over time
- Integrate data collection into the normal work process
- Use sampling where electronic systems are not available
- Use qualitative and quantitative data

Annotated Time Series





Types of Measures

- Project level
- Process measures to support PDSA

PDSA Cycle Measures

- In addition to the family of measures reported each month in the collaborative, specific measures will be required to determine and document the success of your PDSA Test and Implementation Cycles:
  - Additional specific measures
  - Stratification of Global measures
- These temporary cycle measures do not have to be reported to the collaborative

CCC Collaborative Measures: Recommended Measures (version 140217)

1. Target Population
2. Release of Information Current
3. Care Coordinator Assigned
4. Shared Care Objectives
5. Emergency Room Utilization
6. Hospital Utilization
7. Client Self Report (Experience, Wellness, Confidence, and Coordination)
8. Referrals (Pending Referrals Made, Pending Referrals Received, and Referrals Completed)
9. Medication Reconciliation
10. Screening for Vitals (BMI, Blood Pressure, and Smoking)
11. Health Status (BMI, Blood Pressure, and Smoking)

CCC Collaborative Measures: Recommended Measures (version 140217)

Measure	Definition	Numerator	Denominator	Data Gathering Plan	Goal
1. Target Population 1a. Clients in target population 1b. New clients in the target population 1c. Clients who leave the target population	The target population is the collection of individuals with serious mental health and/or substance use disorders with a diagnosis of diabetes and/or cardiovascular disease	1a. Number of clients in the target population 1b. Number of clients added to the target population this month 1c. Number of clients who left the target population this month	N/A	1a. On the last day of the month, count the number of clients in the target population. 1b. On the last day of the month, count the number of clients added to the target population that month. 1c. On the last day of the month, count the number of clients who left the target population that month.	N/A
2. Release of Information for Sharing Protected Health Information (PHI)	Percentage of clients in the target population with a current Release of Information for sharing PHI with all partners	Number of clients in the target population with a current Release of Information for sharing PHI with all partners	The target population	On the last day of the month, count the number of clients in the target population with a current Release of Information for sharing PHI with all partners in the Care Coordination Team. Divide this number by the target population (multiply by 100 to get a percentage).	>90%
3. Care Coordinator Assignment	Percentage of clients in the target population with an assigned care coordinator	Number of clients in the target population with assigned care coordinator	The target population	On the last day of the month, count the number of clients in the target with assigned care coordinator. Divide this number by the target population (multiply by 100 to get a percentage).	>90%

CCC Collaborative Measures: Recommended Measures (version 140217)

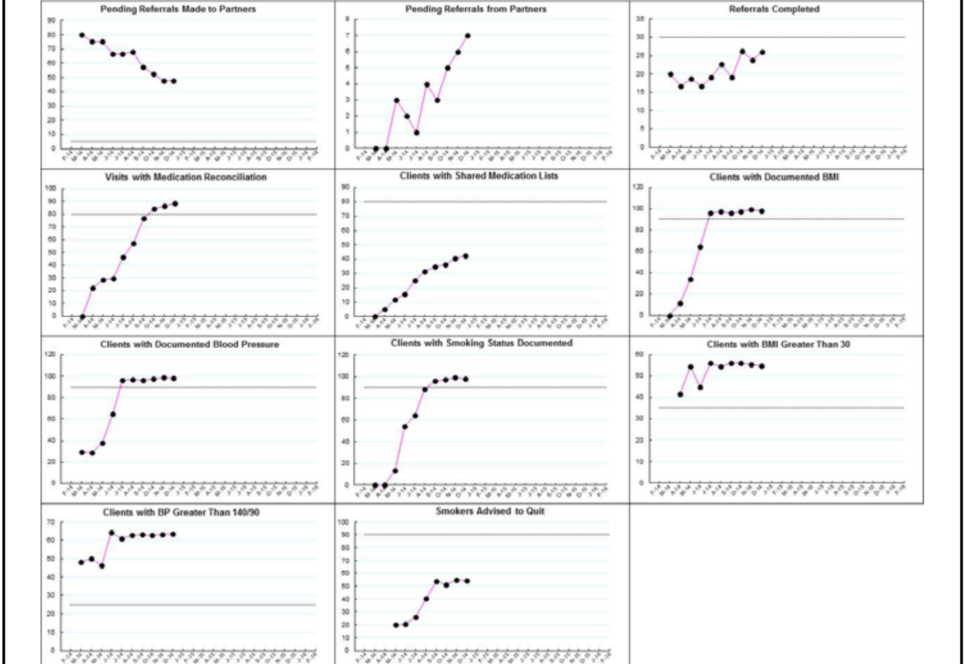
Measure	Definition	Numerator	Denominator	Data Gathering Plan	Goal
8. Referrals a. Pending Referrals Made to Partners b. Pending Referrals from Partners c. Referrals Completed	a. Percentage of referrals to partners that are pending after 14 days. b. Number of referrals received from partners at least 14 days ago that are still pending. c. Percentage of referrals to partners that were completed (including a report back from "referred to" clinician/organization) in the last month.	a. Number of referrals to partners that are pending after 14 days. b. Number of referrals received from partners at least 14 days ago that are still pending. c. Number of referrals to partners that were completed (including a report back from "referred to" clinician/organization) in the last month. The count of days begins the day the referral is made and the count ends the day that the referral actually occurs.	a. The number of referrals made in the last 90 days b. N/A c. The number of referrals made in the last 90 days	On the last day of the month, count the: a. Number of referrals to partners that are pending after 14 days. b. Number of referrals received from partners at least 14 days ago that are still pending. c. Number of referrals to partners that were completed. Divide these numbers by the count of referrals made in the last 90 days (multiply by 100 to get a percentage).	a.<5% b.=0 c.>30%

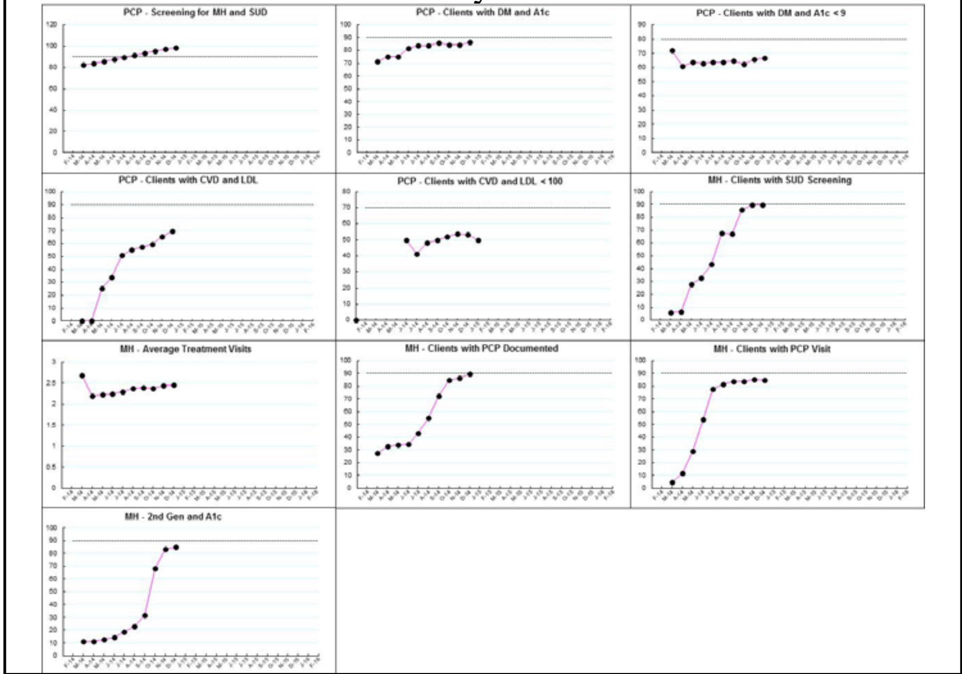
Data Reporting Tool

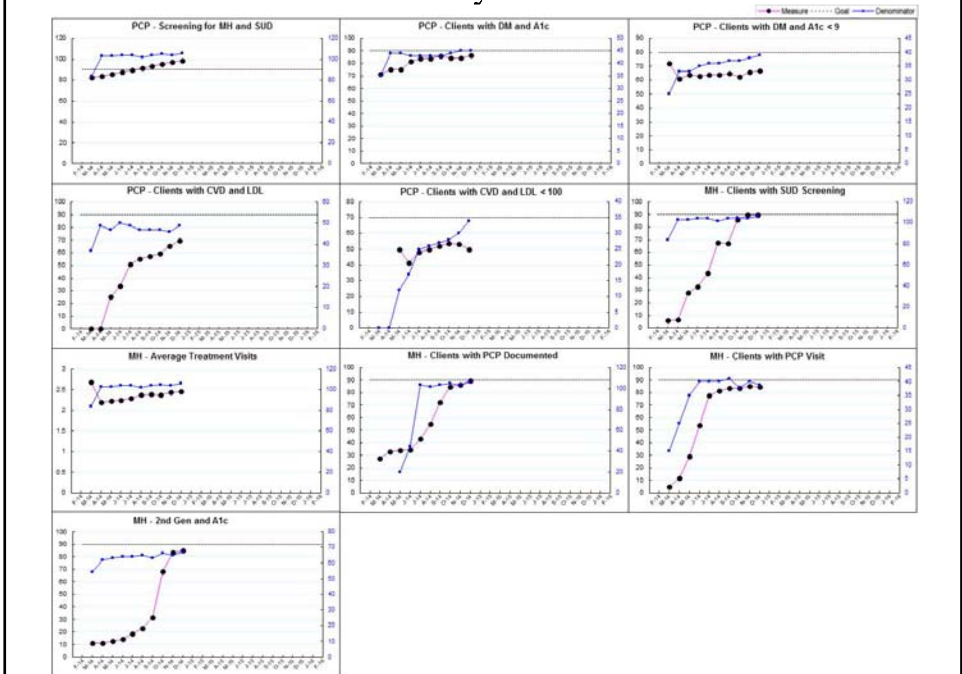
CCC Data Reporting Tool

Santa Marta County Behavioral Health

Month	1.a. Clients in Target Population: Number of clients in the target population	1.a. Total	1.b. New Clients in the Target Population: Number of clients added to the target population this month	1.b. Total	1.c. Clients Who Leave the Target Population: Number of clients who left the target population this month	1.c. Total	2. Release of Information Among Partners: Number of clients in the target population with a current Release of information for sharing PHI with all partners	2. Percent of clients in the target population with a current Release of information for sharing PHI with all partners	3. Care Coordinator Assignment: Number of clients in the target population with assigned care coordinator	3. Percentage of clients in the target population with assigned care coordinator	4. Clients with Shared Care Objectives: Number of clients in the target population whose care objectives have been shared between 2 (or more) agencies in the past 6 months	4. Percentage of clients in the target population whose care objectives have been shared between 2 (or more) agencies in the past 6	5. Emergency Room Utilization: Number of clients with one or more visits to ER during the month	5. The target population (or the number sampled)	5. Percentage of clients with one or more visits to ER during the month
Feb-14		#N/A		#N/A		#N/A		#N/A		#N/A		#N/A			#N/A
Mar-14	84	84	4	4	0	0	34	40.5	4	4.8	0	0.0			#N/A
Apr-14	103	103	19	19	0	0	45	43.7	19	18.4	0	0.0			#N/A
May-14	103	103	1	1	1	1	47	45.6	25	24.3	12	11.7	2	20	10.0
Jun-14	104	104	2	2	1	1	55	52.9	67	64.4	14	13.5	3	45	6.7
Jul-14	104	104	1	1	1	1	56	53.8	89	85.6	34	32.7	6	104	5.8
Aug-14	102	102	1	1	3	3	57	55.9	92	90.2	35	34.3	4	102	3.9
Sep-14	104	104	2	2	0	0	64	61.5	93	89.4	36	34.6	12	104	11.5
Oct-14	105	105	2	2	1	1	67	63.8	89	84.8	39	37.1	9	105	8.6
Nov-14	104	104	1	1	2	2	72	69.2	94	90.4	42	40.4	7	104	6.7
Dec-14	106	106	2	2	0	0	71	67.0	96	90.6	41	38.7	4	106	3.8
Jan-15		#N/A		#N/A		#N/A		#N/A		#N/A		#N/A			#N/A
Feb-15		#N/A		#N/A		#N/A		#N/A		#N/A		#N/A			#N/A
Mar-15		#N/A		#N/A		#N/A		#N/A		#N/A		#N/A			#N/A
Apr-15		#N/A		#N/A		#N/A		#N/A		#N/A		#N/A			#N/A
May-15		#N/A		#N/A		#N/A		#N/A		#N/A		#N/A			#N/A
Jun-15		#N/A		#N/A		#N/A		#N/A		#N/A		#N/A			#N/A
Jul-15		#N/A		#N/A		#N/A		#N/A		#N/A		#N/A			#N/A
Aug-15		#N/A		#N/A		#N/A		#N/A		#N/A		#N/A			#N/A
Sep-15		#N/A		#N/A		#N/A		#N/A		#N/A		#N/A			#N/A
Oct-15		#N/A		#N/A		#N/A		#N/A		#N/A		#N/A			#N/A
Nov-15		#N/A		#N/A		#N/A		#N/A		#N/A		#N/A			#N/A
Dec-15		#N/A		#N/A		#N/A		#N/A		#N/A		#N/A			#N/A
Jan-16		#N/A		#N/A		#N/A		#N/A		#N/A		#N/A			#N/A
Feb-16		#N/A		#N/A		#N/A		#N/A		#N/A		#N/A			#N/A
Mar-16		#N/A		#N/A		#N/A		#N/A		#N/A		#N/A			#N/A
Apr-16		#N/A		#N/A		#N/A		#N/A		#N/A		#N/A			#N/A
May-16		#N/A		#N/A		#N/A		#N/A		#N/A		#N/A			#N/A
Jun-16		#N/A		#N/A		#N/A		#N/A		#N/A		#N/A			#N/A
Jul-16		#N/A		#N/A		#N/A		#N/A		#N/A		#N/A			#N/A
Aug-16		#N/A		#N/A		#N/A		#N/A		#N/A		#N/A			#N/A
Sep-16		#N/A		#N/A		#N/A		#N/A		#N/A		#N/A			#N/A
Oct-16		#N/A		#N/A		#N/A		#N/A		#N/A		#N/A			#N/A
Nov-16		#N/A		#N/A		#N/A		#N/A		#N/A		#N/A			#N/A
Dec-16		#N/A		#N/A		#N/A		#N/A		#N/A		#N/A			#N/A
Jan-17		#N/A		#N/A		#N/A		#N/A		#N/A		#N/A			#N/A
Feb-17		#N/A		#N/A		#N/A		#N/A		#N/A		#N/A			#N/A
Mar-17		#N/A		#N/A		#N/A		#N/A		#N/A		#N/A			#N/A
Apr-17		#N/A		#N/A		#N/A		#N/A		#N/A		#N/A			#N/A




Santa Marta County Behavioral Health
PCP - Screening for MH and SUD
PCP - Clients with DM and A1c
PCP - Clients with DM and A1c < 9
PCP - Clients with CVD and LDL
PCP - Clients with CVD and LDL < 100
MH - Clients with SUD Screening
MH - Average Treatment Visits
MH - Clients with PCP Documented
MH - Clients with PCP Visit
MH - 2nd Gen and A1c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Measure
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PCP - Clients with CVD and LDL < 100
MH - Clients with SUD Screening
MH - Average Treatment Visits
MH - Clients with PCP Documented
MH - Clients with PCP Visit
MH - 2nd Gen and A1c

Review of your pre-work measurement assignment

LS Preparation: Assess some of your current feedback loops

- How will you know a change is an improvement? Routine (monthly) collection and review of measures.
- Exercise for Learning Session 1 (getting your feet wet):

1. From each agency that is part of your CCC team, count the # of clients who have **referrals** to a specific agency in the past month
2. For those clients that had **referrals**, count the # of referrals that were completed* in the past month

**Completed means services are ongoing or finished and documentation has been received back from the agency*

Review of your pre-work measurement assignment

CCC Team	Referrals Past Month	Completed Referrals
Fresno		
Inyo		
Jewish Family Service		
Lake		
Madera		
Mendocino		
Modoc		
Orange College		
Orange Project Renew		
Plumas		
Solano		
Sonoma		
Tuolumne		